Always Learning to See: The Art and Thought of Sargy Mann

Robert Pepperell*

Cardiff School of Art and Design, Cardiff Metropolitan University, Cardiff CF24 0SP, UK

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*To whom correspondence should be addressed. E-mail: rpepperell@cardiffmet.ac.uk

Abstract
Sargy Mann (1937–2015) was a British figurative artist who was fascinated by visual perception and the way visual experience can be depicted. He suffered from poor eyesight throughout his life and lost his sight completely at the age of 68. Despite this, he developed ways of using tactile information and measurement to vividly depict the visual world in paint, and his late work is widely regarded as being among his best. This paper introduces some of Mann’s key ideas on art, visual perception, and his research into the way other artists depicted visual experience.

Keywords
Art, perception, blindness, Sargy Mann

1. Introduction

It is natural to think of the eyes as the seat of vision. So it is surprising when an artist without functioning eyes is able to convincingly depict the visual world.

The paintings produced by Sargy Mann (1937-2015) in the last decade of his life, when he had completely lost his sight, are widely regarded as his among best. They vibrate with luminous colour, creating a convincing sense of space inhabited with imposing figures (see Fig. 1 as an example). The loss of sight might be regarded as potentially catastrophic for someone who makes a living painting what he sees. But Mann’s eventual blindness after decades of gradually worsening visual impairment proved in some respects revelatory and liberating.

The revelation was that he did not need eyes in order to have lucid visual experiences of the world around him. He recounts an episode that occurred shortly after he became totally blind at the age of 68 and was resigned to the end of his artistic career. Feeling he had nothing to lose he took up a brush loaded with ultramarine blue, applied it to a blank canvas and unexpectedly ‘saw it go blue’ (Mann, 2015). He claims that this vision of blueness was a percept and not a memory. He reasoned that such percepts are possible because they occur in dreams, and his own study of the scientific literature led him to understand that visual experience occurs
not in the eyes but in the visual cortex. This encouraged him to begin painting again, to learn to paint again, and in a way learn to ‘see’ again without using his eyes.

There is no reason to doubt Mann’s account of his revelation, but like him we are surprised and perhaps puzzled that visual experience of a world-based event could occur in someone without functioning eyes. The fact that we use the word ‘see’ in several senses, both literal and metaphorical, may be confusing here. In what sense did Mann see the patch of blue he refers to? One possibility is that it was some sort of entoptic phenomena, although this seems unlikely given the complete loss of sensation from his eyes. Another is that it was a form of synaesthesia, where experience in one modality is triggered by stimulation of another, in this case occasioned by his tactile and motor interaction with the paint and canvas. But this would not fully explain why he experienced such a specific shade of blue and not some arbitrary colour. Philosophers like Andy Clark (2003) and others (Auvary and Myin, 2009) have argued that habitual use of material objects such as notebooks and smartphones can create extended perceptual and cognitive systems of which the objects are an integrated part. Mann had a lifelong dependence on his painting apparatus to create images, and would have used it countless times to generate the experience of applying blue paint. The incident he describes may exemplify one such extended system, which retains the capacity to generate the experience despite the loss of a critical part.

As well as this revelation about vision he also experienced a twofold sense of liberation. Like many figurative artists of his generation, Mann was deeply influenced by modernist French masters such as Claude Monet, Pierre Bonnard, Raoul Dufy, and especially Paul Cézanne, all of who painted everyday landscape, interior, and still life subjects. Each of these artists, in different ways, rejected many of the conventions used to depict the visual world used by artists working in the European tradition, such as single-point linear perspective (Pepperell and Hughes, 2015). Rather than attempting to record, what are often thought of as, the objective properties of the world they foregrounded the subjective experience of visual perception. That is, they began to paint not just ‘what’ they saw but ‘how’ they saw. Many Cézanne landscapes and still lives, for example, are compositd from several distinct viewpoints in the same way we build up an overall impression of a scene by scanning around it (Gibson, 1950; Smith, 2013). This perceptually driven approach to figurative painting came to dominate a certain strand of British art culture and education in the twentieth century, particularly at Camberwell School of Arts and Crafts in London where Mann taught for many years (Hassell, 1999; Laughton, 1986). Mann’s loss of sight freed him from any residual dependence on the modernist masters and focused him instead on the task of recording visual experience in the most direct way possible, even if in doing so he relied to an every greater extent on his memory, his intellect, and sense of touch. He also found liberation in his use of colour. Unhappy about including in a painting an armchair that he knew to be a distasteful shade of brown, he was about to cover it with a white cloth when he realized he was free to paint it any colour he liked. The intensity of the palette in his later works is striking, and is especially effective in evoking the burning light of the Mediterranean environments he loved to paint (see Fig. 1).
Mann was initially trained in mathematics and engineering, and while this served him throughout his career he came to rely on it more as he gradually lost sight. Some of his final paintings of the female figure (most often his wife, the artist Frances Mann) were created using various self-designed contraptions, one of which consisted of moveable pointers that allowed him to calculate the paths of light between his own viewpoint and the subject (see Fig. 2, right). He also devised an ingenious system for registering touch-derived locations in three-dimensional space on his canvases with blobs of Blu-Tack (see Fig. 2, left). Taking the edges of the canvas as a reference he would apply the Blu-Tack in pieces of varying size and shape to mark the proportions measured from the model and arrive at his composition. As a highly skilled artist Mann would have been striving not just to depict an arbitrary slice of the physical world but create an effective design that occupied the canvas in an aesthetically potent way. He would then fill in the shapes that described forms using combinations of colours that evoke the intensity of light that would be experienced in a certain place, such as Cadaqués in Spain, or to create visually stimulating chromatic contrasts of blue and orange, as in Fig. 1 (Livingstone, 2002). Mann’s technique allowed him to estimate allocentric spatial relations and combine these with egocentric tactile sensations to arrive at depictions of reality that are both highly readable and highly expressive.

This rigorously empirical approach to the problem of converting knowledge derived from sensation into painted images characterized his art, and allowed him to appreciate empirically derived insights from the vision sciences. He clearly gained much from reading James Gibson, as many artists of his generation had (Pepperell & Hughes, 2015) and in a late essay he favourably quoted a passage from Gibson’s *The Senses Considered as Perceptual Systems* (Gibson, 1966; see Mann’s essay ‘Perceptual systems, an inexhaustible reservoir of information and the importance of art’ in this issue). In it Gibson describes the world as a potentially ‘inexhaustible reservoir’ of perceptual information. Rather than our senses being ‘fixed capacity instruments, like cameras or microphones’, they are infinitely adaptable according to the needs of the sensing organism.

Gibson’s theories chimed with Mann’s conviction that seeing was an acquired skill that with training and practice one could become increasingly expert in. His early teachers, who included significant British painters such as Euan Uglow and Frank Auerbach, told him they could not teach him to draw or paint but they could help him learn how to see (Mann, 2015). Scrutinizing his visual experience and refining his sensibility were lifelong preoccupations, and became ever more central as his eyes deteriorated. His notebooks from the early 1960s describe observations and experiments on phenomena such as double vision, depth perception, visual ambiguity, and colour constancy (Mann and Mann, 2008; see also Pepperell and Ruschkowski, 2013). He describes experiments he carried out in the mid-1960s on willfully reversing the perceived orientation of a three-dimensional Necker cube (he later became aware of Richard Gregory’s work on this topic) and on the way the faces of an ambiguous white cube placed on a strongly coloured ground appeared to change colour depending on perceived orientation. He described Edwin Land’s *Experiments in Color Vision* in *Scientific American*
(Land, 1959) as ‘the most exciting reading experience of my life’ (Mann & Mann, 2005). Land compellingly demonstrated that the appearance of a local area of colour depends on surrounding colours and the frequency of the illuminating light rather than on the area’s intrinsic properties. This was a seminal discovery for Mann, and one that affected both his practice as a painter and his understanding of the colour effects achieved by others.

Mann’s honest and rigorous empiricism led him to many further revelations about perception of the world, how it can be represented, and how earlier artists had addressed the same problems. He realised, for example, that when viewing any scene (assuming normal vision) we can see not only directly in front of us but also to our left and right, and above and below, to an extent few people are aware of. Landscape painters, as Mann was, are more likely than most to appreciate the way an open space envelopes their field of view since they are so often confronted with the task of convincingly distilling that space into a fixed rectangular plane. The solution most commonly used by artists was to ignore the information in the wider field of view—to crop it out of the frame; vision scientists are not the only ones who have often overlooked the contribution of the peripheral field to our sense of visual space (Pepperell, 2012). Mann was one of the few artists who systematically incorporated peripheral visual information into his landscapes, and in doing so claimed to be following the example of painters such as Claude Monet (see Mann’s essay ‘Perceptual Systems, an inexhaustible reservoir of information and the importance of art’ in this issue).

Mann’s solutions to the problem of how to depict very wide angles of view (180 degrees or so horizontally) varied throughout his career. Sometimes he used wide-format canvases to create a panorama that approximates what could be seen as the eye or head turns to take in a vista, as for example in Fig. 3. In several of his late paintings he selectively compressed and expanded regions of space that corresponded to peripheral and central regions of the visual field, respectively. In these cases the head and eyes are notionally stationary, fixating on a given motif with central vision, but the artist attempts to transcribe the surrounding contents of the wider peripheral field. This can be seen in ‘Penny Reading above the Hidden Garden’ (1995) (Fig. 4) depicting an outdoor scene encompassing approximately 180 horizontal degrees, the main motif being the seated figure. To aid his failing eyesight Mann made a photomontage on the spot, stitched from a series of shots made while rotating the camera around a single viewpoint (see Fig. 5). The corresponding painting shows the same physical space but in this case organized around the central motif of the seated woman. To maintain the prominence of the figure within the composition the artist has significantly enlarged her compared to the photomontage, while at the same time greatly compressing the surrounding space, particularly the area that includes the white wall to the left. The same principle of central enlargement and peripheral compression has been observed in many other landscape painters, such as Canaletto, John Constable, Vincent van Gogh, and Paul Cézanne (Mather, 2015; Pepperell and Heartel, 2014). The application of this principle by artists over many years suggests this is not an arbitrary or purely expressive way to fit contents of the visual field within
a given picture space. Rather it must reflect something of the way our visual field is organized, and how it can be optimally represented in paintings.

Mann’s fascination with visual perception and how to depict it led him to conduct empirical research into Pierre Bonnard’s methods of representing visual space (Mann, 1991). Bonnard was one of the so-called ‘intimiste’ painters of the post-Impressionist period who were noted for their depictions of everyday domestic interiors, and was explicit about his desire to convey in paint what it was like to perceive a certain scene (“Let it be felt the painter was there seeing things in their own light”, he said—Bonnard, 1975). Through close study of his paintings and drawings, Mann intuitively understood that Bonnard had incorporated very wide fields of view into the limited scope afforded by a given canvas, and that this was particularly evident in the many studies Bonnard made of the interior of his house in southern France.

In the mid-1980s Mann, along with Frances and the artist Tom Espley, were granted access to Bonnard’s property and photographically documented many of the same viewpoints he had painted. Fortunately the house had changed little since Bonnard’s death in 1947, with much of the contents remaining in situ. The photographs allow us to compare the way Bonnard recorded a given viewpoint and how a camera (effectively a linear perspective device) does the same. In one of his examples, Mann demonstrates that the White Interior of 1932 (Fig. 6) covers around 130 degrees horizontally and about 75 degrees vertically, which is much wider than would be captured in a traditional still life painting. Artists have been long advised to restrict their angles of view to 60 horizontal degrees or less to avoid the compositional problems associated with wide angle views (Bärtschi, 1976). To incorporate the same space photographically with a wide-angle 17 mm lens on a 35 mm camera Mann and Espley needed to take three shots (Fig. 7) from the exact place in the room where Bonnard stood to make the view. (As measurements noted in Mann’s notebook show, the room is very small and there was little room for maneuver). The resulting montage depicts the same region of visual space, but in a geometrically very different way. Mann argues that Bonnard preserved the straightness of the vertical lines, necessarily skewed by the laws of optics in the photographs, in order to remain more faithful to actual experience (Mann, 1994). Note the relative prominence given to the radiator in the painting, which is in line with the central visual ray, and the relative diminution of kitchen objects in the peripheral foreground (which were carefully arranged by Mann and Espley to match their positions as Bonnard had painted them). The chair on the left is also rendered significantly smaller in the painting than the photograph. In organizing his depiction of visual space in this way Bonnard was subverting one of the cardinal rules of linear perspective, and indeed of optics generally, which is that objects subtend a larger visual angle as they approach the viewer and a smaller visual angle as they recede. Mann’s appreciation of Bonnard’s solutions to the problems of satisfyingly representing visual experience may have influenced his later experiments with organizing wide-angle visual spaces, discussed above.

The extraordinary facility Mann showed as a figurative artist in spite of his visual impairment attracted the attention of the neurobiologist Semir Zeki, who has a longstanding and deep interest in art and its relationship to the brain. Zeki was keen to carry out an fMRI study
with Mann as a subject in order to compare his neural activity when imagining a colour to that of normally sighted people (Adams, 2010). Mann feared, however, that isolating one variable within the complexity of his visual processing in this way would be "completely at odds with how we actually perceive things", and he never participated. Zeki also invited Mann to write an article for a special issue of Philosophical Transactions of the Royal Society that Zeki was editing. The piece, entitled Shared Experience (Mann, undated), was never published, but it contains perhaps the most complete summation of Mann’s artistic philosophy, much of which was informed by his reading of scientists like Gibson.

Mann’s argument, in essence, is that while there are many kinds of figurative painting there are two in particular that are radically different yet rarely distinguished. The first represents what he terms ‘common experience’, by which he means painting that shows what a viewer would see if he or she were looking at the same space seen by the artist. This can be thought of as the artist creating an objective record of a certain environment (putting aside the question of whether it is possible to achieve such objectivity given that all perception is by its nature subjective). Perhaps a photograph achieves this, or a painting that appears like a photograph. The second kind of painting represents ‘individual experience’ in which the artist shows what viewers would not ordinarily see were they looking at the same view because the painting conveys the artist’s personal vision, forged by his or her individual visual training and sensibility. This kind of painting can be thought of as recording something closer to the subjectivity or phenomenology of a particular person engaged in looking. What is crucial, Mann says, is that the painting affords an opportunity for a viewer willing to give it sufficient attention to grasp something of the unique experience of the artist. Studying the resulting work, he claims, can give rise to a ‘shared experience’ between artist and viewer, where aspects of the private experience are made publicly accessible. This is something that art (Mann would include poetry and music) is uniquely able to achieve.

Mann’s distinction between common and individual experience parallels the distinction drawn by the art historian Ernst Gombrich between paintings that show ‘what’ we see and those that attempt to show ‘how’ we see (Gombrich, 1972). Gombrich was skeptical about whether it was necessary or even possible to make work of the latter kind, and was dismissive of several artists who have tried (See also Gombrich, 1982a). For Mann, however, transmitting the highly refined visual sensibility of the artist was the main purpose of art. His theory of shared experience was grounded in scientific theories about perception, especially Gibson’s, in which the primary role of perceptual systems is to seek out biologically salient invariants in the environment on which our survival depends. This causes us to overlook or filter out subtle variants within the environment that are not immediately germane to our needs, for example the tints of blue and purple seen in shadows under certain conditions.

Artists train their visual systems to discriminate such fine differences in the same way wine tasters train their palates, and so can literally see things that others less trained can’t see. By skilfully representing those features in their work the artwork alerts the attentive viewer to their presence in their own visual perception, and so confers the sensibility of the artist, via the
work, to the viewer; it's sometimes said that no-one saw indigo in shadows before the Impressionists began to paint them (Gombrich, 1982b). In this sense, intimately engaging with a work of art, or many works of art over a long period, retrains the viewer's perceptual system to be closer to that of the artist whose works are studied.

For Mann this theory was informed by a lifetimes' experience of closely scrutinizing his perception of the world and way other artists had done the same. His passage to total blindness involved several stages of more or less sudden deterioration in his vision, and caused him time and again to relearn how to see, to make the best use of his gradually diminishing visual sense. This made him especially conscious of the plasticity of the visual system, its capacity to adapt to new demands and become ever more sensitive; he was very proud of his ability to detect subtle changes in his the condition of his eyes before the ophthalmologists (see Mann's essay 'Perceptual systems, an inexhaustible reservoir of information and the importance of art' in this issue).

Great art, according to Mann, is made not when artists illustrate the visual world but when they create what he called 'metaphors' for it. In Mann's application of the term, which is perhaps somewhat idiosyncratic when compared to its use by figures like Goodman (1969) or Wollheim (1980), artworks act as metaphors when they draw attention to their physical properties as much as to objects they represent. In the case of painting these physical properties include the flatness of the surface and the materiality of the paint. Some of the pleasure we get from art comes from the play between our awareness of the (absent) objects being depicted and the material the artwork is composed of, which is patently present. By drawing our attention to the artifice of the work's construction we, as viewers, are forced to mentally reconstruct the world being depicted, and this is more demanding than being presented with something that merely satisfies our common expectation, as would be the case with say an unremarkable photograph, which has no metaphorical power. By functioning as a metaphor the artwork prevents us falling into complacent interpretations of what we see and our visual awareness is heightened. Mann's theory has something in common with recent ideas about the importance of predictive coding in our visual negotiations with the world, and how artists often deliberately subvert expectations in order to achieve certain aesthetic effects (Van de Cruys & Wagemans, 2011). It also highlights the importance of what might be called the 'dichotomy' that exists in representational artworks between their material support and their depicted content, and how the conflict between these two aspects of a work can contribute to our appreciation of it (Pepperell, 2015; Pirenne, 1970; Wollheim, 1980).

Although justifiably renowned as a 'blind painter', we should be wary of defining Sargy Mann as such. His lifelong struggles with visual impairment taught, and retaught, him to see with more acuity and sensitivity than most. Arguably this process continued even into his period of total sight loss, where he managed to retain a vivid visual awareness, albeit supplemented by touch, intellect, and a well-trained memory. The work produced during his career, including paintings and drawings, articles, lectures, and art historical investigations, collectively testify to his passion for a process so many of us take for granted and which is still so poorly understood,
namely our capacity for visual awareness. The example of his extraordinarily tenacious struggle to maintain visual contact with the world teaches us that we should never stop learning to see.

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References


Figure 1. Sargy Mann, *Three figures by the sea*, oil on canvas, 2014 (sargymannarchive.com). This figure is published in color in the online version.
Figure 2. Left: Sargy Mann using blobs of Blu-Tack to mark key locations on the canvas. Right: Showing the measuring device used to calculate light paths from his subject to his viewpoint. Photographs © Peter Mann, 2007. This figure is published in color in the online version.
Figure 3. Sargy Mann, *Landscape*, 1976, oil on canvas. Photograph Robert Pepperell. Courtesy of the estate of Sargy Mann (sargymannarchive.com). This figure is published in color in the online version.
Figure 4. Sargy Mann, *Penny reading above the hidden garden*, 1995, oil on canvas (sargymannarchive.com). This figure is published in color in the online version.
Figure 5. Sargy Mann, photomontage for ‘Penny reading above the secret garden’, 1995. This figure is published in color in the online version.
Figure 6. Pierre Bonnard, *The White Interior*, 1932, oil on canvas, Musée de Grenoble. © ADAGP, Paris and DACS, London 2016. This figure is published in color in the online version.
Figure 7. Sary Mann and Tom Espley. Photomontage of the viewpoint for Bonnard’s White Room.