

# Synesthesia

## BRINGING OUT THE CONTOURS



Carol Steen, *Clouds Rise Up*, 2004-05, oil on canvas-covered masonite, 62.5 x 51cm.

*I made this painting last winter after I heard a musician play an untitled piece on his Shakuhachi flute. Unlike the fast-tempo songs I usually work to because I like to watch the colours change quickly, the song he played had a very slow tempo. I call this *Clouds Rise Up* because this is exactly what I saw as I listened to him play his flute. Each note he played had two sounds and two colours: red and orange, which is why the two colours you see move together as one shape on the slightly metallic green surface.*

Some extraordinary individuals breathe in colour and taste words. They have an altered perception of the world caused by a curious sensory malfunction. FRANCES MCDONALD explores synesthesia and its force in art.

PUT THE RED BERRIES ALL TOGETHER, GROUP THE BLUE ones over to the side, get an archway happening, smooth the lawn out. If a bloke's drab to look at, maybe a smart apartment can lure the girls. Acclaimed neuroscientist Professor V.S. Ramachandran was astonished when he first saw the beautiful homes Australian male bower birds make. There is symmetry, there is "grouping", there is colour contrast — all the aesthetic principles which we deploy in our art, only from a bird brain. Unlike most art historians, who study the variation imposed

by culture, Ramachandran is exploring the prevalence of aesthetic universals, fascinated by the question of 'What is art?' If you look at the history of the human species, most of the art is highly distorted, exaggerated, even abstract. "I mean, look at cave art," he said last year on ABC radio. "[Or] African art, which is more like cubism than representational art. And in fact was the inspiration for cubism. Look at much of Indian art, look at Chola Bronzes, look at Mogul miniatures — emphasis on play, whimsical play of colours. "How do artists

Carol Steen, *Runs Off in Front, Gold*, 2003, oil on paper, 105 x 70cm.

*This is based on an especially colourful photism that occurred while I listened to Santana's version of a song called Adouma. The colours I see are the colours of light, not the colours of pigment, and I played this song over and over again as I painted the moving colours. The advantage of sound visions, or photisms as the researchers call what we synesthetes see, is that I don't have to rely on my memory. I can replay the song as often as I want to watch the colours.*

*These moving colours will swirl around, one seemingly chasing the others and any previously seen blackness will be pushed all the way to the edge until the colours just explode in their brilliance like fireworks. The colours, for me, are triggered by the sounds of the instruments, including voices, not the sound of individual notes, with the exception of the Shakuhachi flute I heard that winter day. (I am hoping that one day I will know what notes are what colour, and if that ever happens then I will have perfect pitch, something I'd love to have.)*

*This painting was used for the cover of Dr Jeffrey Gray's book *Consciousness, Creeping Up on the Hard Problem*, published by Oxford University Press. You'll notice I use many of the same things that I often see in a photism: comma-like shapes, brilliant colour fields, and the layered swirling bursts of colour that appear very briefly before they vanish or change into other forms.*

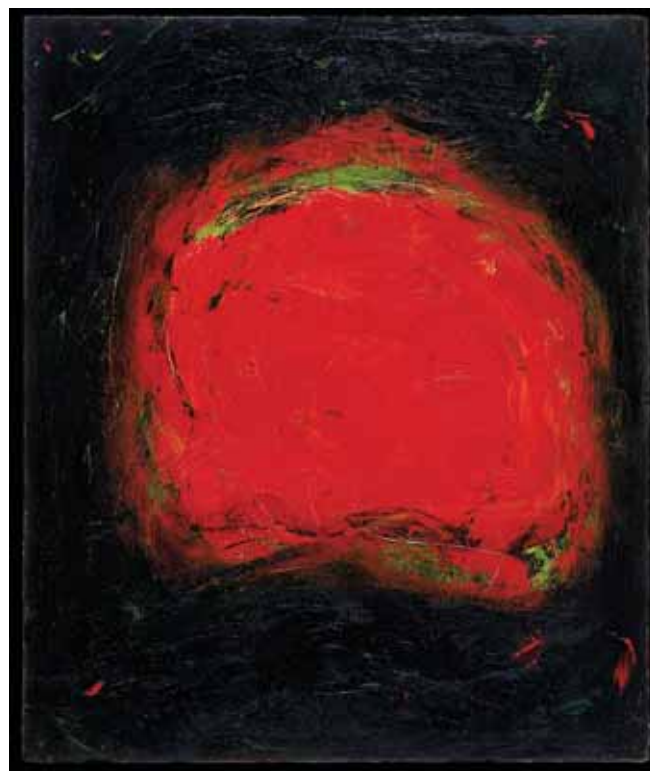


perceive their worlds then snap-freeze those perceptions into an artwork? Ramachandran suspects van Gogh's epileptic seizures contributed to his empathy for colour through a process called 'kindling', where the sensory input and its links to the emotional limbic core of the brain are heightened. He sees metaphor as the core to art and the artistic experience. We've been interested in metaphor because of a condition called synesthesia, where people get their sense muddled up. For example, every time they hear the tone C sharp...it's red. Synesthesia, defined by neurologist Richard Cytowic as an involuntary joining in which the real information received by one sense is accompanied by a perception in another sense, is thought to be eight times more common among artists, poets and novelists. A synesthete might taste certain words, see pictures during pain, or breathe in the colour of a smell. The work of New York painter and sculptor, Carol Steen, often springs from her synesthetic visions. "Imagine sunlight shining through a gemstone ... that's the type of colour I see,"

she says. Touch, for Steen, is a powerful synesthetic trigger, though as she explains in her paper, *Visions Shared: A First-hand Look into Synesthesia and Art*, smell, sound, taste and pain affect her perceptions as well. "I use the various visual perceptions from each in creating my art," she says. Previously, she worked with the images that acupuncture triggered in her mind - vibrant, swirling abstracts, beckoning to be recorded, but so speedy they eluded capture. "It was like watching an amazing movie, but you can't remember everything." Now, she likes her studio drenched in loud electronic music. "Because I'm working with sound, if I forget what it is I just saw, I just play that section over again." Steen's creative stimulation is in-built. Her work, she says, is only possible because of her synesthesia. "It is important for others to know that some people experience the world in ways which are contrary to commonly held assumptions about perception." Well-known neurologist, Oliver Sacks, had some of his own assumptions about visual perception broadened by discovering a surprising

variety in the ways people, deprived of sight later in life, experienced their worlds. He asks in a New Yorker article, "To what extent are we the authors, the creators, of our own experiences?" John Hull became completely blind at 48. Gradually his facility and his desire for visual imagery and memory faded. The idea of 'seeing' lost all meaning for him — he stored no images of even common things, discarded any concept of 'here' and 'there', had no use for a sense of tangible shapes. His non-visual senses heightened and assumed a new richness and power — discerning sound differences in the rain pattering on the path, beating on the grass, slapping on the driveway. "Rain," Hull wrote in his autobiography, "has a way of bringing out the contours of everything." He accepted his world of "deep" blindness as "an authentic and autonomous world, a place of its own". Moved by Hull's eloquent description of the realignment a mind makes after losing such a significant perceptive sense, Sacks believed this story to be typical, until he encountered intriguingly different experiences of blindness, where visualisation and imagery flourish. In some cases this was maintained with considerable conscious effort, but not for traveller and synesthete, Sabriye Tenberken, whose style of perception Sacks described as

Carol Steen, *Red Commas on Blue*, 2004, oil on paper, 16 x 16cm.  
*This painting was created when I listened to the song Show Me, played by Megastore. I loved watching the electronically altered, transparent blue voice in this song with its swift rotating movements. The red arcs were the drums.*



Carol Steen, *Vision*, 1996, oil on paper, 39 x 31cm.  
*One day, many years ago, I was having an acupuncture treatment and was lying flat on my back, on a futon, stuck full of needles. My eyes were shut and I watched intently, as I always do, hoping to see something magical, which does not always occur. Sometimes what I see is just not interesting or beautiful.*  
*Lying there, I watched the soft, undulating, black background I always see when I shut my eyes become pierced by a bright red colour that began to form in the middle of the rich velvet blackness. The red began as a small dot of intense colour and grew quite large rather quickly, chasing much of the blackness away. I saw green shapes appear in the midst of the red colour and move around the red and black fields. This is the first vision that I painted exactly as I saw it.*

"impulsive, almost novelistic" in its visual freedom. Tenberken's sensibility is strongly visual and pictorial. "When I need to recall on which day a particular event happened, the first thing that pops up on my inner screen is the day's colour." Blindness has intensified, rather than dulled, her enjoyment of visual imagery. Sacks concludes that it's not possible to know what is visual in our mental landscape and "what is auditory, what is image, what is language, what is intellectual, what is emotional — they are all fused together and imbued with our own individual perspectives and values". UK artist Luke Jerram's colour blindness motivates him to probe the blurred inter-connections of our perceptive facilities. Sometimes, as with *Retinal Memory Volume*, sculpting a three-dimensional, retinal after-image in a viewer's mind. At other times he creatively, subliminally, intrudes on the subconscious of people sleeping under his *Sky Orchestra's* flight path, a drifting metaphor for ways of perceiving — a vast spectacular performance and an intimate, personal experience.