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Declaration of Originality

I, Sanjane Dues..4. Oct..2012....(signature and date) hereby declare that the thesis here submitted for the degree of Doctor of Philosophy of the Australian National University is the outcome of the research project undertaken during my candidacy, that I am the sole author unless otherwise indicated, and that I have fully documented the source of ideas, references, quotations and paraphrases attributable to other authors.

ABSTRACT

Painting light, touching space: investigating how luminosity and the materiality of the surface of paintings create spatial illusions and contribute to the poetics of space.

Painting light, touching space researches the spatial and poetic effects of the luminosity and materiality of paintings. The work explores the interrelations between the formal and experiential aspects of painting from the perspectives of both painter and beholder. A study taking the form of an exhibition of paintings exhibited at the ANU School of Art Gallery from March 17 to 26, 2010 comprises the outcome of the Studio Practice component, together with the Exegesis which documents the nature of the course of study undertaken comprises 66%, and the Dissertation, which comprises 33% of the Thesis.

Colour, material and structural experimentation yielded new paintings demonstrating varied spatial, luminous and potential poetic effects for the receptive viewer. Three approaches to pictorial structure are employed: the grid, concentric geometries and eccentric shapes, each of which generate different opportunities for complex colour interactions, and a variety of pictorial dynamics. Informed by the observation of natural phenomena and the examination and analysis of relevant historical and contemporary paintings, these works are particularly distinguishable by ultra-high value colours using the principles of colour interaction, a subtle range of spatial effects conveyed by colour and the highly-tuned selection and handling of materials. The theoretical platform of the Studio Research is informed by a diverse range of historical and contemporary sources: writers including Susan Sontag and John Berger; theorists Julia Kristeva and Gaston Bachelard; architect Christopher Alexander; teachers Krishnamurti and Pema Chödrön, and artists Fra Angelico, J.M.W. Turner, Agnes Martin, Howard Taylor and Rosslynd Piggott.

The Dissertation addresses the methods of painting light, depicted and illusory, through material, colour and compositional means. While the painting of light has been described as paradoxical by a number of authors, their discussions and analysis have been under-developed. A sensory poetic model and approach is introduced to inform analysis and synthesis in the investigation of paintings. This research

demonstrates the benefits for art scholarship in the development of greater sensitivity to the role of painters' material processes in the generation of significant visual, spatial, kinaesthetic and poetic effects. This has involved contesting and clarifying accounts of painted light found in the scholarly literature. This research proposes that the sensory poetic approach, with its integration of subjective experience, is a model which may be usefully applied beyond this research.

The paintings of Fra Angelico and Mark Rothko are examined in response to literature linking their material surface and luminous qualities. This analysis demonstrates that the artists' approaches to constructing and composing paintings are highly significant in conveying the illusion of light. Pictorial structures are further investigated through close observation of the paintings of J.M.W. Turner, Giorgio Morandi, Agnes Martin, Mary Heilmann and Howard Taylor. This project reveals that colour, materiality and pictorial structures work in concert to produce luminosity and spatial effects with their myriad poetic associations. Materiality and luminosity are inextricably and simultaneously present, however, materiality is perceived at close viewing and luminosity at a middle distance where tactile details coalesce. Consequently, the direct phenomenological experience of paintings is revelatory.

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INTRODUCTION

Maybe all I am saying is that there can be in painting moments of perceptual experience so intense and so joyous that one has to think of the mystery of why this should be so – and of the mystery of our being that can respond with such intensity to matter.¹

“[A]mazing!” exclaims poet Howard Nemerov about the luminosity that seems to come from within particular paintings with the artists’ virtuosity of handling “colored dirt”.² Many of us know the experience of captivation and intrigue, as light appears to emanate from a painting, but is also bound by the sensual nature of the painted surface. My thesis investigates this paradox embodied by painting, and contends that luminosity and surface materiality convey spatial sensations and an apprehension of *the poetics of space* in the viewer, where *the poetics of space* refers to the work of Gaston Bachelard.³ As a painter, my objective is to offer insights into the relations between these pictorial and experiential factors within the Western tradition of painting.

My research has been guided by a set of framing questions: What precedents are there for this kind of enquiry?

How can I discuss the formal elements and the poetic response to painting in a way that is mutually informing, enriching?

How do materiality and luminosity generate illusions of pictorial space, affect the beholder’s space, and invite a receptive poetics of space or resonant experience?

Are the effects of materiality and luminosity complementary, paradoxical and/or conflicting?

Are the spatial experiences of materiality and luminosity distinctly different and, if so, what might the implications be?

Are other elements of painting important for the illusion of luminosity?

¹ Virginia Spate, “Concerning the Spiritual in Art. A Sceptical Essay,” in *Spirit and Place: Art in Australia 1861-1996*, ed. Ross Mellick and Nick Waterlow (Sydney: Museum of Contemporary Art, 1996), 79.

² Howard Nemerov, “On Poetry and Painting, with a Thought of Music,” in *The Language of Images*, ed. W.J.T. Mitchell (Chicago: The University of Chicago Press, 1980), 10.

³ Gaston Bachelard, *The Poetics of Space*, trans. Maria Jolas (Boston: Beacon Press, 1964).

In addressing these questions, I propose an interpretative model and develop a methodology to guide my explorations of the materiality and luminosity of paintings.

The phenomenology of how paintings are perceived and experienced is central to my thesis. I investigate it through the examination of primary sources that demonstrate painterly approaches to creating particular qualities of light. Selected paintings by Fra Angelico, Mark Rothko, J.M.W. Turner, Giorgio Morandi, Agnes Martin, Howard Taylor and Mary Heilmann are the vehicles used to address the enquiry.

The choice of painters enables me to explore a range of formal strategies and resulting spatial effects. Fra Angelico's frescoes bring together Medieval iconicity and luminosity with the spatial concerns of Giotto and the Renaissance, essentially, the depiction of realistic volume and depth. Turner was an obvious choice as forerunner to the Impressionists with his astounding command of colour creating luminous illusions of atmospheric space. The inclusion of Modernist artists in this dissertation is supported in the writing of William V. Dunning.⁴ Dunning notes that while Modern art rejected linear perspective and the modelling of forms through shading, modernist artists used the other traditional Renaissance devices to create illusions of space: "atmospheric and color perspective and the separation of planes."⁵ Although spanning a period of over five hundred years and different cultural contexts, all the paintings examined employ Renaissance devices for creating the effects of space and light.

Beholding paintings

In the following contextual research I define the key terms used throughout the Dissertation. The discussion is founded on the *beholding* of paintings. The two-dimensional object known as a painting, notes Julian Bell, is a kind of "human product" formed by marks and surface that distinguish it from other sorts of surfaces such as a piece of writing or a photograph.⁶ It is pointed out by Wollheim that a painting is created in order to be seen by a spectator or beholder.⁷ In this thesis I use the term 'behold' as it implies more than visual engagement and is appropriate for a topic

⁴ William V. Dunning, *Changing Images of Pictorial Space. A History of Spatial Illusion in Painting* (New York: Syracuse University Press, 1991), 210.

⁵ *Ibid.*

⁶ Julian Bell, *What Is Painting? Representation and Modern Art* (London: Thames & Hudson, 1999), 24-25.

⁷ Richard Wollheim, "The Work of Art as Object," in *Art in Theory 1900-2000 an Anthology of Changing Ideas* (Oxford: Blackwell, 1984), 803.

concerned with phenomenology. To behold is to observe and derives from the Old English *bihaldan* – to hold.⁸ Our attention can be held or focussed on an object with our vision, mind and body. Beholding implicates us in the experience of a lived sensual encounter. I have derived the usage of *beholder* from Michael Fried who observed that for Courbet beholding “profoundly implicates the body”.⁹ Courbet’s self-portraits, in which he is depicted with his eyes almost closed, emphasise the inner experience of the body, and the closeness of his subject to the picture plane imposes on the viewer’s space.¹⁰

Artists employ a range of compositional strategies to engage the viewer. Courbet compels the viewer not to come too close, however, as Michael Podro notes, those of Rembrandt implicate the beholder’s location in space as part of what is happening in the picture.¹¹ Another example is the seeming nearness of the central ‘figure’ in Rothko’s large Seagram paintings that appear to open inward or advance into the beholder’s space of reception. Shapes that relate to the passage of the body are also readily identified in Rothko’s paintings, such as the rough doorway shapes called “portals”.¹² The paintings, notes John Elderfield, invite “visual reach”.¹³ The artist consciously shapes the beholder’s engagement.

Rosalind Krauss identified “visual reach” as one of the essential visual features that implicate the beholder’s body, where focus on the horizontal is an extension of touch, through reaching outward.¹⁴ Krauss also named the other essential function as beholding, when “the gap” between the beholder and the object provides a space for the varieties of vision: “contemplation, wonder, scientific enquiry, disinterestedness, aesthetic pleasure.”¹⁵ While the gap is a physical space between the beholder and the

⁸ “The Concise Oxford Dictionary Ninth Edition,” ed. Della Thompson (Oxford: Oxford University Press, 1995), 116.

⁹ Michael Fried, *Courbet’s Realism* (Chicago: The University of Chicago Press, 1990), 6.

¹⁰ *Ibid.*

¹¹ Michael Podro, “Orientation in Rembrandt,” in *Depiction*, ed. Michael Podro (New Haven: Yale University Press, 1998).

¹² John Elderfield, “Transformations,” in *Seeing Rothko*, ed. Glenn Phillips and Thomas Crow (London: Tate Publishing in association with the Getty Research Institute, 2005), 107.

¹³ *Ibid.*, 108.

¹⁴ Rosalind Krauss, “Gestalt,” in *Formless: A Users’ Guide*, ed. Yve-Alain Bois and Rosalind Krauss (New York: Zone Books, 1997), 90.

¹⁵ *Ibid.*

painting necessary for engagement with the work, it is also an active and shifting space of experience, determined by the painting's scale, qualities, venue, lighting and the beholder's viewing choices. Viewing distance is how "the gap" is commonly referred to. I also refer to this phenomenological space as the space of reception.

In the mid-fifties, Rothko apparently said that the ideal distance from which to view his paintings was eighteen inches so that the beholder's experience was of being in the picture.¹⁶ Elderfield notes however that the shift in attention from the surface to film modes of colour is inhibited by awareness of the surface materiality of the work.¹⁷ Observation of the painted surface at close range integrates both the knowledge and limitations of touch. Merleau-Ponty points out that "touch cannot simultaneously cover more than a small amount of space" and thus "the tactile field has never the fullness of the visual."¹⁸ All the brush marks, cracks, lumps and residue which can be seen at eighteen inches, at a distance of two to three metres, or sometimes greater distances, seem to assemble themselves into coherent areas of colour with a much reduced awareness of surface materiality. My understanding of viewing distance and the impact of lighting, room size and the hanging height on the experience of surfaces and luminosity of paintings was heightened by my viewing of the exhibition of Rothko's late works at Tate Modern in 2008.

Pictorial space

Illusory space is also pictorial space, defined as "the apparent space behind the picture-plane, created by the use of perspective and other illusionist devices."¹⁹ Dunning, citing Erwin Panofsky (1965), notes that with Giotto the picture surface became synonymous with the picture plane, like a window beyond which infinite space could be depicted.²⁰ The Renaissance development of linear perspective the following century, was, states Panofsky, "a translation of psychophysiological space into mathematical space; in other

¹⁶ Thomas Crow, "The Marginal Difference in Rothko's Abstraction," in *Seeing Rothko*, ed. Glenn Phillips and Thomas Crow (London: Tate Publishing in association with the Getty Research Institute, 2006), 26.

¹⁷ Elderfield, "Transformations," 107.

¹⁸ Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (Oxford: Routledge & Kegan Paul, 1958), 260.

¹⁹ Edward Lucie-Smith, "The Thames and Hudson Dictionary of Art Terms," (London: Thames and Hudson, 1984), 146.

²⁰ Dunning, *Changing Images of Pictorial Space. A History of Spatial Illusion in Painting*, 27.

words, an objectification of the subjective."²¹ Does this imply that the psychophysiological and subjective are contained within linear perspective?

Certainly, linear perspective and the other means of indicating space embody far more than the logical. As a contemporary example, the central rectangle of the Howard Taylor painting *Halation* (Fig. 1) conveys a sense of space contrary to its actual material occupation of space as a thick layer of blue paint. Observing from four metres away, its material nature dissolves and appears to hover as a depth of colour within a concentrically modulated grey and brown ground. Is it a distant light source viewed from within a space of shadows? Perceptions of hovering or receding luminous colour generate metaphors and memories. The space of reception in which pictorial space is experienced, impacts on the beholder's imagined space. The poetic experience depends on the interconnection of these imagined, actual and illusory spaces.

Artists' depiction of light or luminous effects articulate pictorial space. There is an implied continuation of the trajectories of light within the painting and into the space of reception. The ambient light in the space of reception also interacts with pictorial light and its implied effects. John White notes that Giotto, in the Arena Chapel frescoes, shaded everything as if it were illuminated by light from a window on the entrance wall.²²

The depiction of light was comprehensively explored by the Romantic painters in their ambition to overwhelm the beholder with painterly renditions of the Sublime.²³ The Sublime experience is succinctly defined by curator Helen Carroll, as "the effect on the psyche of encounters that overwhelm the senses and emotions" explored in painting as the pursuit of representing the ineffable.²⁴ However, I needed to assign a term that could stand for the affective domain and encompass a greater range of experience than the Sublime. As experiences of luminosity and light-filled spaces, actual or illusional, can

²¹ Erwin Panofsky, *Perspective as Symbolic Form*, trans. Christopher S. Wood (New York: Zone Books, 1991), 66.

²² John White, *The Birth and Rebirth of Pictorial Space* (London: Faber and Faber, 1967), 58.

²³ William Vaughan, *Romanticism and Art* (London: Thames and Hudson, 1994), 33.

²⁴ Helen Carroll, "Introduction," in *Sublime 25 Years of the Wesfarmers Collection of Australian Art*, ed. Allan Watson (Perth: Wesfarmer Limited in association with the Art Gallery of Western Australia, 2002), 13.

affect us through metaphoric association, I adopted Bachelard's phrase and title: "[t]he poetics of space".²⁵

The poetics of space

My use of the poetics of space acknowledges Bachelard's poignant and intimate experiences of space in the domestic interior, and in the contemplation of natural forms, such as the shell and nest.²⁶ At its simplest, the poetics of space refers to an aesthetic experience. The term more comprehensively concerns the viewer's awareness or comprehension of the artist's intent.²⁷ The experiences, perceptions and associations made by a beholder when viewing a painting, link their mind with actual space and pictorial space. The Bachelardian collapse of the distinction between the actual picture and its spaces, both depicted and imagined, potentially offers the poetics of space. Nonetheless, while a painting provides the material, luminous and compositional conditions that make a spatial poetic experience possible, it depends entirely on the sensibilities and receptivity of the beholder.

The common usage of "poetics" in art writing may be due to its history in discourse as "visual poetics," almost as old as the tradition of painting itself. The term was first used by Aristotle and later translated from the Roman poet Horace's famous dictum *Ut pictura poesis*; "As in painting, so in poetry".²⁸ The difficulties in the comparison between poetry and painting are noted by Wendy Steiner in her citation of Svetlana and Paul Alpers (1972): "in order to make such comparisons, fixed likenesses must be assumed in such elusive and problematic phenomena as form, structure, and harmony".²⁹ However, as Howard Nemerov notes, "both painter and poet are makers of images".³⁰ Both use languages engaging the beholder in their thoughts, emotional life and imaginings.

The difficulties noted by the Alpers, and the uncertainty evoked by referring to the poetics of space is appropriate for the uncertain territory of subjective responses that occur in the beholding of paintings. In recent times *The Poetics of Space* was used as

²⁵ Bachelard, *The Poetics of Space*.

²⁶ *Ibid.*, 203.

²⁷ Nemerov, "On Poetry and Painting, with a Thought of Music," 9-10.

²⁸ Moshe Barasch, *Theories of Art from Plato to Winckelmann*, vol. 1 (New York: Routledge, 2000), 166.

²⁹ Wendy Steiner, *The Colors of Rhetoric* (Chicago: University of Chicago, 1982), xiii.

³⁰ Nemerov, "On Poetry and Painting, with a Thought of Music," 11.

the title for an issue of the literary journal *Southerly*, which featured a rich range of works presented as responses to the real and imagined spaces that people occupy.³¹ The editor, David Brooks asserts that the poetics of space “*is* a matter of architecture... It is a matter of visual representation. It *is* a matter of figuring and reconfiguring the manner in which we conceptualise space around us.”³² Beholding a painting is also a matter of negotiating space, the pictorial space, the space between one’s body and the painting, and the imaginative space into which we may enter.

The phenomenologist, Minkowski, from whom Bachelard studied the nature of the poetic image, used the term “reverberation”: an auditory, spatial and temporal metaphor to discuss the *élan* of the poetic image, imagined or realised.³³ Minkowski related the poetic to perceptions of space, time and sound through its “echoing” and having “sonority” affecting everything in its midst.³⁴ Bachelard’s discussion of the emanation of light from within Georges Rouault’s paintings suggests the same kind of spatial shift from source to receiver.³⁵ Consequently, we might speak of the apprehension of luminosity emanating from within a painting, reverberating or resonating through time and space as a poetic image.

Bachelard wrote about the poetics of the spatial merging of the inner experience with that of the immense outer world and illustrated his case with Milosz’s *L’amoureuuses initiation*, a poetic meditation about the uniting of expansiveness and focus; the vast and the intimate.³⁶ “[T]hrough their ‘immensity’”, Bachelard writes, “the space of intimacy and world space – blend. When human solitude deepens, then the two immensities touch and become identical.”³⁷ The act of contemplating a painting suggests a collapse of the space of reception and a merging of the beholder’s inner space with the pictorial space of the painting.

The connectedness inherent in Bachelard’s “intimate immensity” is the opposite to the concept of alienation introduced in his writing about the dialectics of outside and

³¹ David Brooks, "Editorial," *Southerly The Poetics of Space* 65, no. 3 (2005): 5.

³² *Ibid.*: 6.

³³ Minkowski cited by Bachelard, *The Poetics of Space*, xii.

³⁴ Minkowski cited by *Ibid.*, xii-xiii.

³⁵ *Ibid.*, xvii.

³⁶ *Ibid.*, 189.

³⁷ *Ibid.*, 203.

inside.³⁸ However, both concepts link with John Berger's theme of human connectedness in boundless space evident in his partial citation of Anna Akhmatova's poem:

You and I are a mountain of grief.
You and I will never meet on this earth.
If only you could send me at midnight
A greeting through the stars.³⁹

Akhmatova brings together the loss of *never* and the longing of *if only*, time (midnight) and place (earth), as real and poignantly impossible points of meeting. The poem is the place of meeting. Berger argued for this mix of the subjective and objective due to the suffering caused by the "empirical world-view".⁴⁰ By this, I suspect Berger means that if an experience such as loss cannot be observed, it does not matter or exist. He explained that poetry incited caring through bringing together the separations that life or violence have caused.⁴¹ The poetics of painting has the same humanising potential as poetry.

Can painting incite caring through re-integration? Painters Paul Cézanne (1839-1906) and Paul Klee (1879-1940) are different examples of this. With his fingers interlocked, Cézanne explained to Dr Gasquet (1921):

Everything that is scattered I bring together. All appearance is scattered, nature is always the same.... If the colour values on my canvas correspond to the planes before our eyes, good; my canvas has locked its fingers, it does not waver, it is true, it is close-knit, it is full.⁴²

Paul Klee reassembled through his vision of unity of "inside and outside, soul and nature" notes Werner Haftmann.⁴³ According to Haftmann, Klee brought together the

³⁸ Ibid., 211.

³⁹ Anna Akhmatova in John Berger, "The Hour of Poetry," in *Selected Essays John Berger*, ed. Geoff Dyer (New York: Vintage, 2001), 451.

⁴⁰ Ibid.

⁴¹ Ibid., 450.

⁴² Werner Haftmann, *Painting in the Twentieth Century an Analysis of the Artists and Their Work*, vol. Volume 1 (New York: Holt, Rinehart and Winston, 1965), 33.

⁴³ Ibid., 243.

ideas of the Orphists and the Blaue Reiter group with his insights on Romanticism to make “pictorial improvisation revolving round his lyrical experiences and states, a visual poem in fine formal metre.”⁴⁴ Haftmann does not elaborate on how Klee does this apart from noting Klee’s belief in the pictorial elements of line, structure, rhythm, volume, with space-time using tone and colour to make “far-reaching communications.”⁴⁵ I will further discuss the pictorial elements of surface materiality and colour as light.

On the surface

Surface and colour are strongly linked through language explains David Summers: “Surfaces are what face us, or may face us, *in vision*” and these are related to *superficies*, translated as the Greek *chroma* which initially referred to skin, then skin colour.⁴⁶ The meaning of the metaphor shifted from physical touch to “contact by sight.”⁴⁷ The surface is where the materiality of the paint qualities and kinds of marks coalesce and where light is “reflected, refracted, scattered and absorbed”.⁴⁸ John Gage points out that surface textures of paintings only became a specific aspect for aesthetic consideration in Russia early in the twentieth century.⁴⁹ A paper by the art critic Nikolai Tarabukin written just after World War I, he reports, signalled a shift in awareness of the material aesthetic value of the painted surface.⁵⁰ In Constructivism, “colour came to be regarded as a ‘material’ on the same constructive level as any other.”⁵¹ The materiality of the painted surface entered critical discussion.

Despite critical consideration of the materiality of the painted surface by the Constructivists, and later, the Abstract Expressionists, some modernist writers cast doubt on its significance. Philosopher Susanne Langer writing in 1957 about the visual

⁴⁴ Ibid., 243-45.

⁴⁵ Ibid.

⁴⁶ David Summers, *Real Spaces: World Art History and the Rise of Western Modernism* (London: Phaidon, 2003), 337.

⁴⁷ Ibid.

⁴⁸ Stephen Rees Jones, "A Note on the Transfer of Light into and out of Paintings," *Studies in Conservation* 38, no. 3 (1993): 174.

⁴⁹ John Gage, *Colour and Culture Practice and Meaning from Antiquity to Abstraction* (London: Thames & Hudson, 1993), 225.

⁵⁰ Ibid.

⁵¹ Ibid.

experience, excluded the materiality of colour altogether from her analysis.⁵² The picture, she asserts, is an “apparition,” not for the tactile or auditory senses but for the purely illusory visual experience.⁵³ I contend however, that there is more to the beholding of a painting than illusionism.

Richard Wollheim challenged the idea of the painting as an illusion distinct from its material nature, and emphasized the “material character of art.”⁵⁴ Wollheim chose to illustrate the significance of painted surfaces through three examples: *La Fenêtre Ouverte* (1913), where Matisse “charges the surface” so that our attention shifts easily from a sense of the painted floor to seeing it as the surface of the painting; Morris Louis’s *Alpha Phi* (1961) where one’s vision shifts between seeing shapes of colour to canvas, and Rothko’s *Red on Maroon* (1969) where he “uses the surface in a highly complex way.”⁵⁵ Oddly, Wollheim does not make explicit what he means by “complex”, nor does he describe the physical nature of the paintings’ surfaces. Yet, clearly, as Terry R. Myers articulates, “for Wollheim, *something* is there on or in the surface of the painting that ensures that something else will be felt.”⁵⁶ It is the “*something*” that I aim to investigate.

Our understanding of the surface appearances of paintings is informed by the experience of textures in the physical world. “Sight communicates directly with touch”, affirms Maurice Merleau-Ponty.⁵⁷ “The senses” he explained, “intercommunicate by opening on to the structure of the thing”⁵⁸ and consequently, synaesthesia is quite a normal experience due to the synergic nature of our perceptual functioning.⁵⁹ This is illustrated by Jane Dillenberger’s experience as relayed by James Elkins in his essay *Crying at Nothing but Colors*.⁶⁰ Dillenberger wrote “I felt as if my eyes had fingertips, moving across the brushed textures of the canvases” in response to the texture of the

⁵² Susanne K. Langer, *Problems of Art Ten Philosophical Lectures* (London: Routledge & Kegan Paul, 1957), 28.

⁵³ *Ibid.*

⁵⁴ Wollheim, “The Work of Art as Object,” 804.

⁵⁵ *Ibid.*, 807-09.

⁵⁶ Terry R. Myers, *Mary Heilmann Save the Last Dance for Me* (London: Afterall, 2007), 65.

⁵⁷ Merleau-Ponty, *Phenomenology of Perception*, 259.

⁵⁸ *Ibid.*, 266.

⁵⁹ *Ibid.*, 266-72.

⁶⁰ James Elkins, “Crying at Nothing but Colors,” in *Pictures and Tears. A History of People Who Have Cried in Front of Paintings*, ed. James Elkins (New York: Routledge, 2001).

painting's surface, not the colours, as Elkins suggests in his essay title.⁶¹ In the same way, I was touched by the humble material nature of the two vertical seams holding Velasquez's remarkable painting *Las Meninas* together. The resting of the vision on an area, or visual touching, recalls the appropriate physical experience of actual touch, with arguably all the emotional associations of that action.

Artists have long been aware of the potential of their paintings' surfaces to convey meaning as can be seen in the textured surfaces of Italian quattrocento paintings and described in Cennino Cennini's artists' handbook, originally published in 1437.⁶² Historian Marcia Hall described how Venetian painters experimented with a wide range of textured canvases, and found that the rough canvas surfaces, thinly applied with gesso, caused a diffusion of paint that enabled them to paint desired atmospheric effects, for example Titian's *Bacchus and Ariadne* (Fig. 2).⁶³ Titian realised that the layering of colours on a rough surface permitted luminous interactions of colour that could not occur on a smooth surface.⁶⁴ The support, with its greater surface area holds more visible layers and enables more colour interactions. Ambient and gallery lighting pass through and refract in many directions from the numerous hills and valleys of paint-laden weave. This scatter and refraction of light surely adds to the painting's glow.

Luminosity

The perception of luminosity, Arnheim notes, is dependent on the natural and artificial light, the beholder's neurophysiology and the amount of light an object can reflect (luminance).⁶⁵ "Luminous" describes qualities "full of or shedding light; radiant, bright, shining."⁶⁶ Luminosity of colour, however, means the brightness or lightness of colour. Faber Birren notes that while the two simplest ways to accent the luminous quality of a hue is to surround it with darks or its opposite, more subtle laws than these achieve

⁶¹ *Ibid.*, 3.

⁶² Cennino D'Andrea Cennini, *The Craftsman's Handbook "Il Libro Dell'arte"*, trans. Jr. Daniel V. Thompson (New York: Dover Publications, 1960).

⁶³ Marcia B. Hall, *Color and Meaning Practice and Theory in Renaissance Painting* (New York: Cambridge University Press, 1992), 209.

⁶⁴ *Ibid.*, 215.

⁶⁵ Rudolf Arnheim, *Art and Visual Perception a Psychology of the Creative Eye* (Berkeley: University of California Press, 1974), 305.

⁶⁶ "The Concise Oxford Dictionary Ninth Edition," 811.

greater luminosity.⁶⁷ For luminosity, Birren explains, “purity contrast, not value or hue contrast, is what is needed.”⁶⁸ This is explored further in Chapter One.

During the five hundred years from Renaissance Florence to twentieth century America and Australia, there have been many changes in the functions of painting, ideas about the nature of light and how colour might indicate the presence of light. It is an area of scholarship too vast to attempt to cover here. However, I will discuss some key art historical and scientific moments to provide contextual grounding for the work of artists chosen for further examination.

During the thirteenth century, Hills notes that light was understood as having substance or *lux*, *lumen* was its radiation, *color* was light materialized on opaque surfaces and *splendor* was the reflection of light from metallic surfaces.⁶⁹ A major metaphysical meaning of light identified by Hills is “the power of a luminous body to reveal itself at the same time as it reveals other things.”⁷⁰ Another is the “consubstantiality and indivisibility” of light, equated with the word of God, which emanates without loss of integrity and is able to reach everywhere while remaining one with its source.⁷¹ The reflection of light was considered a metaphor for understanding the truth indirectly, and the manifestation of light was considered in degrees of purity, the greater the brilliance the greater the beauty.⁷² The impact of a work of art’s shiny brilliance on the beholder was understood as a metaphor for spiritual illumination.⁷³ These tenets greatly influenced painters and their practices.

In 1436, Alberti in his treatise *Della Pictura*, drawing on classical optics described the rendering of linear perspective using the picture plane as a fixed frame, a consistent source of pictorial lighting and the consideration of the viewer’s location.⁷⁴ The painting as an iconic object of veneration providing illumination, literally and metaphorically in all directions, changed irrevocably. The artist monk Guido di Piero, known as Fra

⁶⁷ Faber Birren, *Creative Color. A Dynamic Approach for Artists and Designers*. (New York: Van Nostrand Reinhold Company, 1961), 79.

⁶⁸ Ibid.

⁶⁹ Paul Hills, *The Light of Early Italian Painting* (New Haven: Yale University Press, 1987), 11.

⁷⁰ Ibid., 13-14.

⁷¹ Ibid., 14.

⁷² Ibid., 14-16.

⁷³ Ibid., 18.

⁷⁴ Ibid.

Angelico (ca. 1395-1455) bridged both eras. From his early career making illuminated manuscripts, he would have well understood the illuminatory power of a work of art. In his paintings he demonstrated his awareness of Alberti's new methods. In the San Marco frescoes (c.1440), Fra Angelico demonstrated his modified application of perspective, also using elements of Medieval pictorial structuring. He showed ingenuity in the painting of light informed by the works of Giotto, Sassetta, theological teachings and the observation of natural phenomena.⁷⁵ It is likely that he was informed by Aquinas's teachings on light and intelligence, wherein light signified the illumination of the mind by God, as explained by Ronald H. Nash.⁷⁶ The painting of light has since been linked with the divine, the spectacle and the Sublime.

It can be seen from the painted light in the San Marco frescoes that Fra Angelico considered the interaction of natural light with depicted light. With reference to Giotto's frescoes of the Scrovegni Chapel, Hills notes that Early Italian painters were intrigued by the "interplay between surface and pictorial light, between light as actual and light as simulated."⁷⁷ Alastair Smart notes that Taddeo Gaddi's motivation to evoke both natural and supernatural light (almost blinding himself through watching a solar eclipse), led to his sustained investigations into the effects of light and how light might be painted in the Giottesque manner.⁷⁸ He achieved this in his remarkable fresco *Announcement to the Shepherds* (Fig. 3) where he developed an innovative approach to fresco using a brown ground so that the yellow light surrounding the angel appeared to be luminous.⁷⁹ The painting of light had shifted markedly from the symbolic medieval methods of using gold, haloes and linear rays.

Moshe Barasch notes that while artists demonstrated an avid interest in the observation and depiction of the phenomena of light, they also knew the power of colour and luminosity to suggest mood and evoke emotional responses.⁸⁰ According to Barasch,

⁷⁵ William Hood, *Fra Angelico at San Marco* (New York: BCA & Yale University Press, 1993).

⁷⁶ Ronald H. Nash, "Intellection, Three Interpretations of Illumination," in *The Light of the Mind. St. Augustine's Theory of Knowledge* (Kentucky: The University Press of Kentucky, 1969), 94.

⁷⁷ Hills, *The Light of Early Italian Painting*, 41.

⁷⁸ Alastair Smart, *The Dawn of Italian Painting: 1250-1400* (Oxford: Phaidon, 1978), 79.

⁷⁹ Ibid.

⁸⁰ Moshe Barasch, *Light and Colour in the Italian Renaissance Theory of Art* (New York: New York University Press, 1978), x-xi.

“moving the beholder” through the combination of colours and types of light in painting was widely understood.⁸¹ Barasch outlines two basic and opposing theories in Renaissance literature for the functions of light and colour in painting. The functional approach was based on rational attitudes where light and shadow are employed as means of illuminating and giving the illusion of form, and light and colour should be subdued, but remain pure and within the boundaries of the form.⁸² Alberti, as the primary example, recommended the sparing use of white for light and did not regard light as expressive, symbolic or aesthetic.⁸³ He advocated painting the illusion of texture by representing its reaction to light, or the illusion of gold through the use of colour.⁸⁴

On the other hand, Cennino Cennini in his *Libro dell'arte* advised the artist to physically simulate textures by, say, roughing the intonaco surface to give the texture of wool or using real gold for the depiction of gold.⁸⁵ This approach was one where bright light might obscure the shapes of figures.⁸⁶ Compared with Alberti's approach of adding black to colours for modelling of forms, the Cennini system used careful juxtapositions of pure colour to create brilliance and a sense of a higher reality.⁸⁷ Fra Angelico was clearly more interested in the luminosity afforded by Cennini's approach.

There are, Martin Kemp points out, fertile conjunctions of artists and theorists who attempt to relate colour in practice to the science of light.⁸⁸ Artists have long been informed about colour and luminosity through their masters' practices and their own observations and experiments. Painters discovered that all the main colours could be mixed from red, blue and yellow (first recorded in the seventeenth century), and artists such as J.M.W. Turner (1775-1851), demonstrated their awareness that the properties of light and those of artists' pigments were not the same.⁸⁹

Turner made luminous paintings well in advance of scientific explanations. He keenly studied natural phenomena, the luminous skies of Claude Lorrain and the work of

⁸¹ Ibid., ix.

⁸² Ibid., xii.

⁸³ Ibid., 13-16.

⁸⁴ Ibid., 21.

⁸⁵ Ibid., 9.

⁸⁶ Ibid., xiii.

⁸⁷ Hall, *Color and Meaning Practice and Theory in Renaissance Painting*, 14-15.

⁸⁸ Martin Kemp, *Science of Art Optical Themes in Western Art from Brunelleschi to Seurat* (New Haven: Yale University Press, 1990), 263.

⁸⁹ Ibid., 261-62.

theorists such as Goethe.⁹⁰ Birren notes that his skills with colour made Turner a true precursor to abstraction.⁹¹ Turner's paintings of light are thought to be a return to the medieval function of the painting as an iconic, luminous thing, if not for veneration, then for admiration and awe.⁹² The luminosity of Turner's paintings, in conjunction with their materiality and spatial effects will be further investigated.

The Impressionist painters created luminous paintings through juxtaposing patches of pure, often equiluminant colours. Consistent with the behaviour of bright illumination, they achieved a sense of the dissolution of forms through a lack of concern about the precise boundaries of objects. They were informed by the work of the dye chemist M.E. Chevreul who discovered and documented the effects of colour interactions known as simultaneous contrast.⁹³ Martin Kemp charts the continuous interplay between artists and scientists, noting that by the late nineteenth century, the writings of Herman von Helmholtz conveyed relevant ideas of optics research for artists.⁹⁴ Helmholtz showed the effect of complementary after-images, drew attention to the increased sensitivity to blue and decreased sensitivity to red at lower light levels, and discovered the additive system of mixing colours for light and the subtractive effect of mixing pigments.⁹⁵ Insisting that artists "paint with light",⁹⁶ scientist and painter Ogden Rood made this information available to artists through the publication of *Modern Chromatics* in 1879.⁹⁷ It is supposed that Rood meant that artists should understand the principles of colour research to create colour sensations and light in painting.

Georges Seurat (1859-1891) is known for his objective of making luminous paintings based on the scientific colour research conveyed by Ogden Rood.⁹⁸ According to Birren, Rood had correctly noted "visual mixtures of related colours formed rich and

⁹⁰ Faber Birren, *Color Perception in Art* (New York: Van Nostrand Reinhold Company, 1976), 9-10.

⁹¹ *Ibid.*, 11.

⁹² Ruth Waller, 28th July 2009.

⁹³ Birren, *Color Perception in Art*, 10-11.

⁹⁴ Kemp, *Science of Art Optical Themes in Western Art from Brunelleschi to Seurat*, 313.

⁹⁵ *Ibid.*, 312.

⁹⁶ *Ibid.*, 313.

⁹⁷ Ogden N. Rood with Faber Birren, *Modern Chromatics Students' Textbook of Color with Applications to Art and Industry*, ed. Faber Birren (New York: Van Nostrand Reinhold Company, 1973), 13.

⁹⁸ Faber Birren, "Neo-Impressionism," in *Modern Chromatics Students' Textbook of Color with Applications to Art and Industry*, ed. Faber Birren (New York: Van Nostrand Reinhold Company, 1973), 39.

luminous effects, while visual mixtures of complements cancelled each other and produced dull tones."⁹⁹ Seurat used small dots of pure colour of similar tones for modelling of forms aiming to cause a mixing of color to occur in the eye of the viewer.¹⁰⁰ Using the example of *Young Woman Powdering Herself*, John Willats observes that the dots are not small enough to fuse at a normal viewing distance, although he does not specify what this is.¹⁰¹ Birren proposes the opposite: that the optical mixing of red and green dots make brown, thus the areas of colour need to be larger to maintain vibrancy.¹⁰² Aspects of colour perception and luminosity are further clarified in Chapter One.

Twentieth century artists have had similar concerns with creating luminous effects. Mark Rothko judiciously determined gallery lighting levels to control the effects on his paintings.¹⁰³ Richard Anuszkiewicz focused on dynamics of colour under changing conditions of natural and artificial light.¹⁰⁴ Rosa M. Hessling, contemporary German artist, installed paintings in churches working with the play of ambient light (Fig. 4).¹⁰⁵ Sabine Muller notes the spatial effects of luminosity and the materiality of surfaces; the glowing effect of the fall of light on Hessling's painted surfaces, causing great depth and a sense of "transforming matter into light".¹⁰⁶

It is also worth noting the historical precedents underpinning the employment of luminous darks. Gage notes the depiction of light in mosaics where the 'light' weakens the further it extends from the light source, with the dark mandorla around Christ becoming lighter as it emanates from the sixth century apse mosaic, *The Transfiguration of Christ* (Fig. 5). Much later, Matisse admired the "luminous black" of

⁹⁹ Birren, *Modern Chromatics Students' Textbook of Color with Applications to Art and Industry*, 42.

¹⁰⁰ Ibid.

¹⁰¹ John Willats, *Art and Representation New Principles in the Analysis of Pictures* (Princeton: Princeton University Press, 1997), 144.

¹⁰² Birren, *Color Perception in Art*, 14.

¹⁰³ Briony Fer, "Rothko and Repetition," in *Seeing Rothko*, ed. Glenn Phillips and Thomas Crow (London: Tate Publishing in association with the Getty Research Institute, 2005), 164.

¹⁰⁴ Richard Anuszkiewicz, "Richard Anuszkiewicz," in *Abstraction Geometry Painting Selected Geometric Painting in America since 1945*, ed. Karen Lee Spalding and Beverly Fazio (New York: Harry N. Abrams in association with the Albright-Knox Art Gallery, 1989), 154.

¹⁰⁵ Sabine Muller, "Bodies of Light," in *Garden of Light Ii Rosa M Hessling* (Sieberg: Dr. Gabriel Uelsberg, Kunstmuseum Alte Poste Mulheim, 2002), 34-35.

¹⁰⁶ Ibid.

Manet's *Portrait of Zacharie Astruc* (1866) and said that he began to use black as light in his painting *Gourds* (1915-16).¹⁰⁷ After this time, Gage notes, Matisse used "black light" at intervals over the following fifty years.¹⁰⁸ Of the luminous darks of Mark Rothko's *Black-Form* paintings, Morgan Thomas notes Rothko dissolves, or almost dissolves "the distinction between darkness and light" in a cinematic way, similar to the "enfolding of light in darkness" that occurs in Hitchcock's film *Psycho* (1960).¹⁰⁹

The similarity of light and dark qualitatively, is in terms of their intensity of value. The powerful effect of employing extreme values may in part be explained by Langer's point that in early languages, descriptive words originally related to the intensity of feeling, so the same word was used for black *and* white, and their true opposite was grey.¹¹⁰

The paradox of painted light

The paradox of the material nature of painted light has been pointed out, but not investigated, by a small number of writers. Their discussions of the generally overlooked consideration of the inter-relations of materiality, colour phenomena and poetics have informed the development of my thesis.

Kathryn A. Tuma considers the tension between the materiality of Agnes Martin's painted surfaces and their colour effects as being "essential to the mechanisms of the work as well as to Martin's poetics of painting."¹¹¹ At the core of the psycho-perceptual operations of Martin's work are, Tuma claims, "[d]issonance and tension".¹¹² Tuma contests Kasha Linville's (1971) reading of the material and colour phenomena of Martin's paintings, claiming that Linville sees the qualities of material and colour as "operating at cross-purposes".¹¹³ However, on revisiting Linville's original text, I found this was not the case.

¹⁰⁷ John Gage, *Colour and Meaning. Art Science and Symbolism* (London: Thames and Hudson, 1999), 230.

¹⁰⁸ *Ibid.*, 240.

¹⁰⁹ Morgan Thomas, "Rothko and the Cinematic Imagination," in *Rothko*, ed. Achim Borchardt-Hume (London: Tate, 2008), 62.

¹¹⁰ Langer, *Problems of Art Ten Philosophical Lectures*, 171-72.

¹¹¹ Kathryn A. Tuma, "Enhancing Stillness: The Art of Agnes Martin," in *3 X Abstraction: New Methods of Drawing*, ed. Catherine de Zegher and Hendel Teicher (New York: The Drawing Center, 2004), 43.

¹¹² *Ibid.*

¹¹³ *Ibid.*

Linville notices her own difficulty in shifting focus from the atmospheric effects of Martin's painting to attend to the surface and explains her experiences of both; the experience of letting "it flow through you", and her enjoyment of the "delicacy of her [Martin's] line and surface".¹¹⁴ While Tuma ignores the location of the beholder, Linville notes the experiences of perceiving Martin's work at different locations.¹¹⁵ From Linville's observations it can be seen that while the paradox of painted light is present in the painting, its perception as either paint, depicted light *or* light occurs at different times and given different viewing distances.

Rosalind Krauss identifies and extends Linville's observations. On Krauss's translation of Linville's article, the "close-to reading" is where the beholder is engaged with the details of the weave of linen, strokes of gesso and the shifting intensities of the drawn line.¹¹⁶ Next, as she steps back, Linville's experience of the surface alters and "the ambiguities of illusion take over from the earlier materiality...the paintings go atmospheric."¹¹⁷ On stepping further back, the pictorial space of the painting becomes flat, and as Krauss notes, this third position "brackets the atmospheric interval of the middle-distance view".¹¹⁸

The paradox of light as material in painting is briefly discussed by Svetlana Alpers.¹¹⁹ Alpers examined the thick painterly surfaces of Rembrandt's paintings and noted the "paradoxical effect of this handling is to make the highest-lit areas of the painted world not the most ephemeral, with light erasing form as it often does in Western painting, but precisely among the most substantial."¹²⁰ Alpers related this puzzling feature to both Horace's *ut pictura poesis* and the context of the rough and smooth styles of Northern painting and the appropriate viewing distances for each; near viewing for the smooth

¹¹⁴ Kasha Linville, "Agnes Martin: An Appreciation," *Artforum* 9 (1971).

¹¹⁵ *Ibid.*: 72.

¹¹⁶ Rosalind Krauss, "The /Cloud/," in *Agnes Martin*, ed. Barbara Haskell (New York: Whitney Museum of Modern Art and Harry N. Abrams, 1993), 159.

¹¹⁷ *Ibid.*, 158-59.

¹¹⁸ *Ibid.*, 159.

¹¹⁹ Svetlana Alpers, "The Master's Touch," in *Rembrandt's Enterprise* (Chicago: University of Chicago Press, 1988), 16-17.

¹²⁰ *Ibid.*, 16.

surface and far for the rough.¹²¹ Alpers does not engage in further discussion of viewing distance.

The co-existence of materiality and colour phenomena is a current concern, exemplified in the work of New York painter Joseph Marioni. Rex Butler notes Marioni's objective is to achieve both strong depth of colour and material expression of paint (Fig. 6).¹²² Butler aligns his discussion of Marioni's paintings with Rosalind Krauss's discussion of the "optical" and "material" readings of Jackson Pollock's paintings, in response to the denial of their materiality by modernist critics.¹²³ Butler seeks to understand the "paradoxical quality" of the material and optical experience of Marioni's paintings noting that his paintings are neither ineffable colour fields nor material constructivist kinds of paintings "but the impossible bringing-together of both."¹²⁴ While Butler identifies the material/optical concern of my thesis, I am interested to know the effect of viewing Marioni's work from different locations.

Rarely do arts writers link the perception of materials and their impact. While there are examples in scholarly literature, links between the poetics of experience and the stuff of painting are under-developed, as can be seen in the following examples. Homi K. Bhabha discusses the experience of rapture as *aura* and suggests art is a bridge linking the ineffable with the *agora* or marketplace of daily negotiations.¹²⁵ How does art do this? Bhabha notes that art is able "to find a language for the high horizons of humanity itself and – in its finest selves, its inspired othernesses, its visionary styles, its vocabularies of vicissitude", but he elaborates no further on this language, which must consist of formal and material elements.¹²⁶

Victor Stoichita sets out "examining the early language of paintings, in an attempt to decipher the mechanism behind their functioning as paintings that communicate a visual

¹²¹ Ibid.

¹²² Rex Butler, "The Touch between the Optical and Material," in *Joseph Marioni Four Paintings*, ed. Rex Butler (Brisbane: University Art Museum, The University of Queensland, 2000), 26.

¹²³ Ibid., 25-26.

¹²⁴ Ibid., 26.

¹²⁵ Homi K. Bhabha, "Aura and Agora: On Negotiating Rapture and Speaking Between," in *Negotiating Rapture: The Power of Art to Transform Lives*, ed. Richard Francis (Chicago: Chicago Museum of Contemporary Art, 1996), 10.

¹²⁶ Ibid.

experience – a ‘vision’.”¹²⁷ In his concluding chapter 21 *Theses on the Representation of the Visionary Experience*, Stoichita links only two formal aspects of painting with the visionary experience – the “blotch” as technique and the “stylistics of uncertainty and vagueness”, but without mention of the painting of light which features in all of the paintings within the text.¹²⁸ While Stoichita discusses the significance of “the luminous cloud” as an important figurative object in the representation of the visionary experience, the colour and type of light of the cloud is described in his citation of Christopher Sorte (1580).¹²⁹ It is interesting to note that Sorte links colour, light and space in his advice for painters to use “soft and suave colours” and “divine things...are always bathed in a soft light and an (implied) perspective of distances”.¹³⁰ Stoichita adds no further discussion.

The lack of attention to light in painting is explained by art historian Paul Hills who notes illumination is so much a part of daily life, it is taken for granted and often not considered part of painting.¹³¹ Consequently historians have preferred to discuss perspective as a Renaissance achievement.¹³² While the presence of light is necessary for seeing, it can be depicted by the painting of illusional light and shadows and/or created by the interaction of ambient and artificial lighting with the paintings’ surface and pigments.¹³³

A poetic model

A poetic model for painting is not a new idea. The concept *ut pictura poesis* has been revised many times, as Michael Sage notes, by theorists as diverse as Barthes, Kristeva, Foucault, Lacan, and Derrida.¹³⁴ W.J.T. Mitchell explains its persistence: “The dialectic of word and image seems to be a constant in the fabric of signs a culture weaves around

¹²⁷ Victor Stoichita, *Visionary Experience in the Golden Age of Spanish Art* (London: Reaktion Books, 1995), 9.

¹²⁸ *Ibid.*, 198-99.

¹²⁹ *Ibid.*, 84.

¹³⁰ Christofero Sorte, 1580 *Ibid.*

¹³¹ Hills, *The Light of Early Italian Painting*, 4.

¹³² *Ibid.*

¹³³ *Ibid.*

¹³⁴ Michael Sage, "Introduction: Literature and the Arts: A French Perspective on Visual Poetics, Language and Artistic Representation," *College Literature* 30, no. 2 (2003): 73.

itself.”¹³⁵ We continue to talk about paintings, and there is a need, as Elderfield points out, for approaches

that allow us to speak without embarrassment or irony the words that Rothko spoke: words like *intimate*, *intense*, and *poignant*; *mystery*, *threat*, and *frustration*. Not to do so would be to give up prematurely on our attempts to understand his paintings.¹³⁶

Elderfield undertakes the difficult task of relating the colours, surfaces and spatial qualities of Mark Rothko’s paintings to the artist’s intent of making “miraculous” paintings.¹³⁷ The sensory poetic model, outlined in Chapter One, seeks to facilitate similar kinds of discussions.

The noticing of observations *and* one’s range of responses to a painting is arguably more illuminating than a strictly formal analysis. Daniel Goleman cites the neurological research of Antonio Damasio (1994) which showed that the parts of the brain concerned with emotion are as involved in reasoning as is the thinking brain; the choices involved in reasoning become impossible once areas concerned with emotion are damaged.¹³⁸ This finding is in accord with the ideas of the original theorist of aesthetics, Alexander Baumgarten (1735).

Csikszentmihalyi and Robinson cite Baumgarten’s claim that to exclude non-logical forms of experience was to “sacrifice valuable forms of consciousness on the altar of reason.”¹³⁹ A sensory poetic model allows for the range of responses, speculations and questions such as the authors found in their study on the aesthetic experiences of museum directors: perceptual, emotional, intellectual and cognitive, and mutually informing, responses which otherwise might not be raised for discussion.¹⁴⁰

¹³⁵ W.J.T. Mitchell, "Image and Word," in *Art in Theory 1900-2000. An Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Oxford: Blackwell Publishing, 2003), 1081.

¹³⁶ Elderfield, "Transformations," 113.

¹³⁷ Mark Rothko 1947/48 cited by *Ibid.*, 116.

¹³⁸ Daniel Goleman, *Emotional Intelligence* (London: Bloomsbury, 1995), 27.

¹³⁹ Mihaly Csikszentmihalyi and Rick E. Robinson, *The Art of Seeing. An Interpretation of the Aesthetic Encounter* (Malibu: J. Paul Getty Museum Getty Center for Education in the Arts, 1990), 6.

¹⁴⁰ *Ibid.*, 34.

Through the interweaving of observations, research and speculation, Berger suggests the possibility of more deeply understanding the complexities of painting.¹⁴¹ He investigates Francisco Zurbarán's *The House of Nazareth*, in terms of what is present and absent, the breaking of pictorial space, historic context and its contemporary relevance.¹⁴² Writer Linda Marie Walker compares Berger's writing to touch: "a touch which is light, like flight, upon one's invisible body."¹⁴³ I aspire to Walker's approach of "how to touch upon the affairs of the heart, how to touch what concerns one".¹⁴⁴ Despite criticism that has been levelled against Berger, particularly for his sensitivity and Marxist ideals, from an artist's perspective, his reflections are pertinent and valuable for this enquiry.¹⁴⁵

In Chapter One, I develop the sensory poetic model using questions derived from a series of John Berger's essays. This is further informed by addressing the research questions about how luminosity and materiality of surface operate in paintings, investigating technical, perceptual and metaphorical aspects of luminosity, materiality and spatial phenomena.

The sensory poetic model informs my observations, discussion and synthesis of information about paintings in Chapters Two and Three. Through the examination of paintings by Mark Rothko and Fra Angelico, who is said to have informed Rothko, I am able to present findings that show how colour was employed to create light and spatial phenomena.^{146 147} In Chapter Three I demonstrate the importance of pictorial structures to carry colour and convey luminosity, through examining paintings by J.M.W. Turner, Giorgio Morandi, Agnes Martin, Mary Heilmann and Howard Taylor.

An inherent limitation of this research approach is the deterioration of primary sources, that is, the paintings. While historians Paul Hills and Marcia B. Hall have noted the difficulty of working with the somewhat corrupted nature of early Italian paintings due

¹⁴¹ John Berger, "Art of the Interior," *New Statesman and Society* 1, no. 6 (1988): 34.

¹⁴² *Ibid.*: 33.

¹⁴³ Linda Marie Walker, "The Appearance of Love Affairs, Writing, Memory," in *What John Berger Saw*, ed. Nikos Papastergiadis (Canberra: Australian National University Canberra School of Art 1999), 41.

¹⁴⁴ *Ibid.*, 44.

¹⁴⁵ Peter Fuller, *Seeing through Berger* (London: The Claridge Press, 1988).

¹⁴⁶ Dore Ashton, "Rothko's Frame of Mind," in *Seeing Rothko*, ed. Glenn Phillips and Thomas Crow (London: Tate Publishing, 2005), 21.

¹⁴⁷ Sheldon Nodelman, "The Unknown Rothko," *Art in America* 96, no. 2 (2008): 98.

to the effects of time, damage and intervention, they insist on the worthwhile nature of such research.¹⁴⁸ ¹⁴⁹ The signs of age through surface cracking, bleaching of colours and other signs of wear can also evoke a sense of age that endows the work of art with a special kind of power. Changes in such works will be noted, where relevant, although I have endeavoured to examine works that are in good condition.

¹⁴⁸ Hills, *The Light of Early Italian Painting*, 1.

¹⁴⁹ Hall, *Color and Meaning Practice and Theory in Renaissance Painting*, 1.



Fig. 1. Howard Taylor, *Halation*, 1985, oil on canvas board, 22 x 31 cm, Private Collection.



Fig. 2. Titian, *Bacchus and Ariadne*, 1522, oil on canvas, 176.5 x 191 cm, The National Gallery, London.



Fig. 3. Taddeo Gaddi, *The Angelic Annunciation to the Shepherds*, 1327, Baroncelli Chapel, Santa Croce, Florence.



Fig. 4. Rosa M. Hessling, *Das Namenlose*, 1998 pigment/lacquer on cotton on wood, 45 x 45 cm.



Fig. 5. *The Transfiguration of Christ*, apse mosaic, sixth century Monastery of St Catherine, Sinai.



Fig. 6. Joseph Marioni, *Blue Painting*, 2002, acrylic on linen, 71.1 x 68.6 cm.

CHAPTER ONE: A sensory poetic model

The perception and poetics of painting

Formal analysis can be used to examine the materiality and luminosity that constitute painted light. However, this is unlikely to reveal how painted light creates spatial effects resonant with experiences of being in the world. To link the direct experience of a painting with perceptions of spatial, material, and colour phenomena, requires an extended method. In this chapter I develop an alternative way to explore relations between the beholder's experience and particular formal elements of painting.

Firstly, I use Berger's essays *Once in a Poem*, *Once in a Painting*, *Art of the Interior* and *The Hour of Poetry* to generate a set of enquiries to guide the examination of selected paintings.^{1 2 3 4} This framework of inquiry assists to negotiate the inseparable territories of perceptual and poetic experiences. It serves to investigate the research questions while not invalidating the idea that the studied works are, as Barnett notes, products of intention, within a particular socio-political environment with conscious or unconsciously conveyed meanings.⁵ Secondly, I explore the perceptual and phenomenological aspects of materiality of surfaces, colour as light and space in order to inform my subsequent analysis of paintings, and to lay the foundations for understanding how luminosity and materiality generate spatial sensations.

The paintings I find the most intriguing are also the most difficult to speak about. It seems they reflect, hold or touch something familiar. This kind of resonance or poetics is of a similar order to reading a poem and seeing in one's mind's eye the images and felt experiences it generates. I aim to develop an analytic model that permits the discussion of this kind of experience. Bachelard's concept, the poetics of space, is an apt phrase to refer to this kind of inexact experience, due to both its openness and

¹ John Berger, "Once in a Poem," in *And Our Faces, My Heart, Brief as Photos* (London: Bloomsbury, 1984).

² John Berger, "Once in a Painting," in *And Our Faces, My Heart, Brief as Photos* (London: Bloomsbury, 1984).

³ Berger, "Art of the Interior."

⁴ Berger, "The Hour of Poetry."

⁵ Sylvan Barnett, *A Short Guide to Writing About Art 9th Edition* (New Jersey: Pearson Prentice Hall, 2008), 117.

encompassing the domain of subjectivity, the intellectual and imaginative functions of the mind and the kinaesthetic experiences of an artwork.

A precedent for developing a model for the discussion of paintings, which considers perceptual and personal experience, is Hubert Damisch's *Perceptive, Technical and Symbolic Models* as described by Yves-Alain Bois.⁶ Damisch suggests that the model for looking at painting is in fact suggested by the painting.

The *Perceptive Model* allows Damisch to focus on the details, textures and (disruption of) the figure-ground relationship and thus compare the paintings of Jackson Pollock and Piet Mondrian.⁷ In his *Technical Model*, applied to the work of Pollock, Damisch considers "the real space set in play by these canvases" and the processes of making the work through gesture and dripping, in this case, and the "thickness" of layers of the painted surface.⁸ Damisch thinks of painting as similar to science or language, and consequently his *Symbolic Model* makes connections, for example, between mathematics and painting.⁹ The model I am proposing encompasses the perceptive by considering how colours and surfaces interact, the technical in terms of how this is able to occur, and the symbolic or poetic, through the metaphoric possibilities of painting.

A counter approach has been taken by vision scientists, V.S. Ramachandran and William Hirstein. The authors present a science of art as "eight laws of artistic experience" suggesting a common neural wiring or set of laws that govern viewer response to a work of art.¹⁰ Their described laws include the "peak shift effect" which involves exaggerations which draw the attention of the viewer, such as the flushed cheeks of Boucher's nudes; the law of "Contraction Extraction" which discards "redundant information" and extracts contrasts in texture and colour, and "Symmetry" as "predator, prey or mate are symmetrical".^{11 12 13} The laws presented by the authors, however, are very general and only useful in rudimentary discussions about art.

⁶ Yves Alain Bois, "Painting as Model," in *Painting as Model an October Book* (London: The MIT Press, 1990), 246.

⁷ Ibid., 247-49.

⁸ Ibid., 249-51.

⁹ Ibid., 252-54.

¹⁰ V.S. Ramachandran and William Hirstein, "The Science of Art: A Neurological Theory of Aesthetic Experience," *Journal of Consciousness Studies* 6, no. 6-7 (1999).

¹¹ Ibid.: 27.

¹² Ibid.: 18.

Ruth Wallen notes that these laws are biased toward representational art, and cannot account for "Rothko colour field paintings, which derive their visual power...from the intensity and subtle contrasts in a single colour field."¹⁴ Ramachandran and Hirstein also de-value the power of the visual metaphor. In their final 'law', "Art as Metaphor", they suggest that metaphor may operate as a code, rather than as rhetoric, as paintings evoke an emotional response long before the metaphor is made explicit by an art critic.¹⁵ Aside from the odd assumption that the beholder awaits the translation of a metaphor by a critic, this reasoning denies the metaphor as a multi-layered poetic structure which "gives us a flash of perception of relationships that has the kick of experience in it."¹⁶ The authors ignore the metaphoric capacities of colour, form and surface to impart meaning.

In replying to Ramachandran and Hirstein's article, Ernst Gombrich notes that the authors' idea of 'art' is not what most people consider art to be and suggests they visit an art gallery to see how "few of the exhibits conform to the laws of art they postulate."¹⁷ The laws of Ramachandran and Hirstein are based on the biology of survival, and as such are about innate neurological systems. Pascal Mamassian, also a vision scientist points out that the authors do not consider that the visual arts play with ambiguities of visual perception that allow the observer to interpret and contribute to his or her own personal experience.¹⁸

An integrated approach

Why develop a model you may ask? Sylvan Barnet explains that formal analysis of a painting is a separation of parts "in order to understand the whole" for the purpose of "seeking to account for your experience of the work".¹⁹ I argue however, that the description of isolated elements is insufficient for comprehensive interpretation,

¹³ Ibid.: 25.

¹⁴ Ruth Wallen, "Response to Ramachandran & Hirstein," *Journal of Consciousness Studies* 6, no. 6-7 (1999): 69.

¹⁵ Ramachandran and Hirstein, "The Science of Art: A Neurological Theory of Aesthetic Experience," 30-31.

¹⁶ M.L. Rosenthal and A.J.M. Smith, "The Elements of Poetry," in *Problems in Aesthetics*, ed. Morris Weitz (London: The Macmillan Company, 1970), 548.

¹⁷ E.H.Gombrich, "Concerning the 'Science of Art'," *Journal of Consciousness Studies* 7, no. 8-9 (2000): 17.

¹⁸ Pascal Mamassian, "Ambiguities and Conventions in the Perception of Visual Art," *Vision Research* 48 (2008): 2152.

¹⁹ Barnet, *A Short Guide to Writing About Art 9th Edition*.

investigating the beholder's experience of painting, or discussing the poetics of space. While Barnett points out that analysis includes synthesis, "the combination of the parts into the whole", he gives minimal attention to the difficult question of how to synthesise or interpret this information.²⁰ Barnett's analysis focuses on the parts of the painting: subject matter, materials used, scale, format, texture, colour and compositional devices, contextual information and the artist's intent, and assumes that dissection will yield the "meaning made visible".²¹

A further imperative is the continuing use of polarised pairs in analysis to describe the elements of painting originally described by Heinrich Wölfflin (1915) as outlined and employed by D'Alleva.²² For example, D'Alleva asks

Where are the brightest colours? The darkest colours? Is there a wide range of colours or a narrow range of colours? Do the colours contrast or blend? Do the colours create a sense of calm or a sense of drama and excitement?²³

While these kinds of questions are useful initially, they exclude consideration of subtleties, interrelations between formal, material and semiotic elements.

In formal analysis, the beholder's experience of the painting is ignored or appended as a tacked-on-at-the-end question about the 'mood' of the work. As an example the final question in Mary Acton's Appendix *Some questions to ask yourself when standing in front of a painting* is: "How does the subject-matter, or lack of it, affect the way you see the picture?"²⁴ If, as Barnett notes, analysis is made to account for one's experience, then it is important to say what that experience is.

The beholder's response is central to the research of Csikszentmihalyi and Robinson.²⁵ Significantly, the authors found that over ninety percent of museum professionals reported an appreciable level of emotional involvement and for one quarter, it was the

²⁰ Ibid., 47.

²¹ Ibid., 55.

²² Anne D'Alleva, *How to Write Art History* (London: Laurence King Publishing Ltd, 2006), 34.

²³ Ibid., 30.

²⁴ Mary Acton, *Learning to Look at Paintings* (New York: Routledge, 1997).

²⁵ Csikszentmihalyi and Robinson, *The Art of Seeing. An Interpretation of the Aesthetic Encounter*.

primary response when engaging with works of art.²⁶ The beholder's experience can be very useful for informing and directing discussion about paintings.

In describing his experience of the photograph as an object and an image, Roland Barthes links what is seen using "the voice of banality" with the certainty and *élan* of his felt response as "the voice of singularity".²⁷ David Freedberg recommends Barthes' approach as a way to respond to all images.²⁸ In part, Barthes' experience of the poetics of the photograph is mediated by the *punctum*, which he describes as "that accident which pricks me (but also bruises me, is poignant to me)" and also as disturbing of the general area of interest, the *studium*.²⁹ Although the singular voice reports the *punctum*, it may be resonant with the experience of others.

On the other hand, the experience of the beholder depends on personal factors, as noted by Jenefer Robinson: "artworks can manifest emotions either by analogy with the person who is expressing an emotion or by mirroring the way the world appears to a person in an emotional state."³⁰ Nevertheless, immediate or 'gut' responses to paintings have served as fruitful starting points for writers such as Siri Hustvedt in her investigative essays on paintings.³¹ Hustvedt notes "Visceral responses to an image...are inevitably avenues to meaning."³² Similarly, Joseph Marioni advises painters that "[t]o understand a painting we must first translate our sensation of the painting into information about the painting."³³

John Elderfield's writings on Matisse (1992), also began with his immediate response. Elderfield's approach was acknowledged and employed by Terry R. Myers in his essay on the paintings of Mary Heilmann.³⁴ Curiosity about their immediate response to a

²⁶ Ibid., 34.

²⁷ Roland Barthes, *Camera Lucida*, trans. Richard Howard (London: Fontana Paperbacks, 1981), 26-27.

²⁸ David Freedberg, *The Power of Images: Studies in the History and Theory of Response* (Chicago: The University of Chicago Press, 1989), 430.

²⁹ Barthes, *Camera Lucida*, 26-27.

³⁰ Jenefer Robinson, "The Emotions in Art," in *The Blackwell Guide to Aesthetics*, ed. Peter Kivy (Oxford: Blackwell, 2004), 181.

³¹ Siri Hustvedt, *Mysteries of the Rectangle Essays on Painting* (New York: Princeton Architectural Press, 2005).

³² Ibid., xx-xxi.

³³ Joseph Marioni, "Socrates and the Alligator," in *Abstract Painting between Analysis and Synthesis*, ed. Elisabeth Madlener (Vienna: Ritter-Klagenfurt, 1992), 73.

³⁴ Myers, *Mary Heilmann Save the Last Dance for Me*, 2.

work has proved useful for a number of writers to inform their analysis. I consider it a valid means of also informing my research.

Drawing from John Berger

I now draw on several considerations from Berger's essays. Berger describes the poem as a "shelter" within which the fragile nature of a transient experience might be housed and through so doing prevents its disappearance and brings "a kind of peace".³⁵ Visual language can also do this. Berger's "shelter" becomes the physical place (surface) and illusional space (through composition, colour and tonal modelling or shifts) for an idea to be explored and delivered through painting. This enquiry is concerned with the nature of the experience sheltered, revealed and/or concealed by the painting and the visual language used to give it enduring form and meaning.

Writing about Francisco de Zurbarán's *The House at Nazareth* (Fig. 7), Berger begins by noting how the painting shelters "Mary imagining the future" while Jesus makes a crown of thorns.³⁶ The visual language of the painting is figurative, visionary and symbolic. Every object in the painting stands for something else, but Berger notes, "the image's emotional charge" is about space:

Painting first has to convince us...of what is there, of the reality of what it depicts... Any painting which is powerful first offers this certitude. And then it will propose a doubt. The doubt is not about what is there; but about where it is.³⁷

The uncertainty of where it, the subject, is in time and space Berger sees as highly significant. The question of "where", Berger states, is not concerned with linear perspective, but with aspects "material and symbolic, for every painted image of something is also about the absence of the real thing."³⁸ All elements of the painting are present for something that is not. Painting's doubt about *where* it is in time and space, Berger continues, is manifested in the breaking of pictorial space, which occurs in a way that depends on the historical period.³⁹ Berger believes that in all great paintings

³⁵ Berger, "Once in a Poem," 21.

³⁶ Berger, "Art of the Interior," 33.

³⁷ Ibid.

³⁸ Ibid.

³⁹ Ibid.

the continuity of pictorial space is disrupted.⁴⁰ His examples include Cezanne who “miraculously exchanges the far for the near.”⁴¹ This led me to ask how pictorial space is broken, what this signifies and how it affects the beholder’s experience of pictorial and phenomenological space. For example, where does the beholder want to move and stand to view the painting? Responses to these questions bring together the phenomenology of perception and the poetics of experience as the poetics of space.

In arguing for the significance of the relations between words Berger considers the juxtaposition of two texts that use the same language but are distinctly different—an annual report and a poem.⁴² Although somewhat contentious given the specificity of language, the point to make is that a painter might use the same visual language as advertising, and the painting will be different. Berger notes: “the sum total of all these possible relations depends upon how the writer relates to language, not as vocabulary, not as syntax, not even as structure, but as a principle and a presence.”⁴³ My question is concerned with how painting transforms visual language through the painter’s approach toward elements of visual language, given the painter’s investigations and understandings of those elements. What elements of painting does the artist employ and what parameters or rules do they apply or break? What evidence is there of the artist’s decisions and presence?

Berger considers time and timelessness: “the poet approaches language as if it were a place, an assembly point, where time has no finality, where time itself is encompassed and contained.”⁴⁴ In a painting, time is contained in the aggregation of marks; in the rhythms established through compositional form and colour choices; in the cyclical processes of returning to certain themes or approaches or in the monumental or personal scale of the painting.⁴⁵ In these ways the surface of a painting is an assembly point.

In asking how time might be implied in the work and what this might mean for the beholder, I include not only the linear, cyclical and infinite kinds of time, but also

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Berger, “Once in a Poem,” 22.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ Berger, “The Hour of Poetry,” 450.

Minkowski's (as discussed by Bachelard) "reverberation" of the poetic image and how this implies an expansive sense of rhythm and resonance.

A model for painting

For guidance in these explorations, I have synthesised the following information from Berger's essays to form a **sensory poetic model** of painting:

A painting has material, luminous, temporal and spatial qualities, which may give rise to sensory perceptions and poetic resonances in the viewer. Pictorial elements and depictions are present for objects or intangible aspects that are absent. The painting shelters an experience of some kind, even if that is painting itself. The uncertainty of where this is in time and space imbues the painting with poetic power. The spatial break is a manifestation of this uncertainty, and has implications for the meaning of the painting and is particular to the time of its making. The artist's presence and approach to visual language is evident in the choices of pictorial elements and the methods and parameters they have employed in using them.

This synthesis generates a range of questions:

What is there?

What absences do the presences stand for? What are the metaphors, suggestions and associations of what is present formally and pictorially?

What is the painting about; what is the experience sheltered by the painting?

Where is it in time and space?

How is time embodied in the painting?

How is pictorial space broken? What are the implications of the tempo-spatial relations?

What is the artist's approach to visual language?

What pictorial rules does the artist seem to follow, and what can be said about the artist's presence?

From this distillation of Berger's essays, two factors have become clear. Firstly, each question regards *the spatial*: the painting as place of surface and illusional space, presence and absence, the making and breaking of pictorial space. Secondly, each question involves the consideration of *pictorial elements*. Consequently, in applying the

model specific aspects of surface materiality, space and luminosity are considered in order to recognise and comprehensively describe what I am seeing in the paintings I have chosen to study. The above questions will be further augmented by the following discussions on materiality, luminosity, pictorial space and the space of reception.

The materiality of the painted surface

How does one describe the surface of a painting? James Elkins, in *What Painting Is* asks how the substances of painted surfaces seem to communicate so much.⁴⁶ In his speculations Elkins compares the alchemical triad with the materials of painting: the free-flowing mercury to solvent; the brightness of sulfur to pigment and salt as residue and suggests that they convey so much because we have a bodily knowing of substances.⁴⁷

Elkins' ideas of fluidity and salty residue may be useful to discuss the evocative qualities embodied in the surface of a painting. As an example, the salty, craggy surfaces of Rembrandt's late self-portraits suggest to Robinson the poignant melding of wisdom and bodily deterioration.⁴⁸ However Elkins' alchemical model, does not consider the inseparable material and luminous properties that derive from the chemical composition of paint that may, for example enhance pigments, or generate fluorescence and iridescence. As an example, M.G. Martindill explains that orange photoluminescence, (the accurate term for fluorescence) operates by reflecting orange light and absorbing most of the others, but unlike usual orange, its glow is due to quick emission of absorbed energy as orange light.⁴⁹ Martindill notes that iridescence operates quite differently; it is the "refraction of light through translucent media resulting in discrete spectral shades."⁵⁰ In these cases light is created because of the paint's structural qualities, which may be emphasised by colour interactions.

Every surface mark and texture can be read as a sign, Elkins notes, basing his rationale on Charles Peirce's (1974) definition of a sign as "something which stands to somebody

⁴⁶ James Elkins, *What Painting Is* (London: Routledge, 2000), 101.

⁴⁷ Ibid.

⁴⁸ Robinson, "The Emotions in Art," 188-89.

⁴⁹ M.G. Martindill, "A European Eye on Luminescence: Flourescent and Phosphorescent Colours for the Visual Artist," *Leonardo* 21, no. 2 (1988): 187.

⁵⁰ Ibid.: 190.

for something in some respect or capacity.”⁵¹ Siri Hustvedt also considers the significance of seeing and feeling mark-making as the still record of the artist’s gestures and “rigors of thought”.⁵² The energy and scale of the mark-making contributes to the energy and relationships of scale in the painting; large marks on a small canvas will bring the marks forward, small marks will create more distance, a combination will create a sense of shifting space. Degrees and variations of surface texture, together with the interaction of light, will also have spatial effects. The making of marks imparts the time of making, the layering, the moving of the canvas, and the impact on the viewer. As an example, Jeffrey Weiss addresses the disorientating effect where Rothko’s drips appear to travel upward.⁵³

The spaces of reception, perception and poetic experience

In the beholding of a painting, one can attend to the materiality of the flat surface of the painting, or, enter into the illusion of the paintings’ pictorial space. This is described by Wollheim as “seeing-in”, an essential perception of the beholder; a kind of perception which happens when the surface is “differentiated”.⁵⁴ Although Wollheim does not specify what he means, one assumes that the differentiated surface is not flat, rather it is activated by brush-marks or shifts in colour opacity and texture.⁵⁵ The simultaneous awareness of seeing into and onto the surface Wollheim terms “twofoldness”.⁵⁶ He explains this as two aspects of an experience, and notes that one aspect of the experience may, usually temporarily, take precedence over the other.⁵⁷ However, where the beholder stands and how they move in relation to the painting’s surface is crucial for seeing into or onto the surface.

Depending on where the beholder views the work, the perception of either colour phenomena or the materiality of the painted surface may be more dominant. Linville relates how the viewer’s perception of the surfaces of Agnes Martin’s paintings alters

⁵¹ James Elkins, *On Pictures and the Words That Fail Them* (Melbourne: Cambridge University Press, 1998), 3.

⁵² Hustvedt, *Mysteries of the Rectangle Essays on Painting*, xix.

⁵³ Jeffrey Weiss, “Dis-Orientation: Rothko’s Inverted Canvases,” in *Seeing Rothko*, ed. Glenn Phillips and Thomas Crow (London: Tate Publishing in association with the Getty Research Institute, 2005).

⁵⁴ Richard Wollheim, “What the Spectator Sees,” in *Visual Theory*, ed. Norman Bryson, Michael Ann Holly, and Keith Moxey (Cambridge: Polity Press, 1991), 104.

⁵⁵ *Ibid.*, 105.

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

between three distinct viewing distances.⁵⁸ When close to the painting, Linville observes how one engages with the surface materiality such as the details of the linen, the thickness of gesso and the pressure inherent in the drawn lines.⁵⁹ In moving away from the surface, the painted surface becomes atmospheric in its affect, and in moving back further, the painting becomes flat.⁶⁰ Linville does not specify distances, as naturally this varies from painting to painting, and beholder to beholder. It is worthwhile noting the effects of these different viewing distances on experiences of the painting's luminosity and surface materiality.

In my experience of Martin's and other artists' paintings, the middle viewing region is especially rewarding through its reach of film colour appearing to extend from within the painting into the space of reception. The atmospheric affects produced suggest Bachelard's merging of the immensity of intimate space with the world space.⁶¹ More specifically in the shift between close-up and middle ground viewing there is a location of uncertain beholding, where it is possible to be aware of the "twofoldness" of space and surface that Wollheim described.⁶² At this locus a kind of alternating occurs between the perceiving of a cohesive pictorial space and the materiality of the surface.

The brain in perceiving paintings, uses different areas to deal with *what* is there and *where* it is; however, it is the *where* function area that is required to make separate readings of flatness and space.⁶³ While observing Martin's paintings, my awareness shifted between the illusion and how it appeared there in paint. I could not fully attend to surface and illisional space simultaneously, but could consciously switch between the two at a viewing distance of around three metres.

Lois Swirnoff, for the perception of pictorial space, lists "characteristic visual clues" as defined by Gestalt theorist J.J. Gibson (1950) as including: linear perspective, apparent size, overlapping shapes, as objects diminish in size they seem further away, atmospheric perspective where the distant objects have less clarity, contrast, higher

⁵⁸ Krauss, "The /Cloud/," 159.

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Bachelard, *The Poetics of Space*, 203.

⁶² Wollheim, "What the Spectator Sees," 105.

⁶³ Margaret Livingstone, *Vision and Art: The Biology of Seeing* (New York: Harry N. Abrams, 2002).

value and tend towards blue; relative brightness and the relation of light and shade.⁶⁴ Other spatial cues listed by educator Alan Pipes include transparency where deeper layers can be seen; vertical depth where the higher an object is on the picture plane the further away it is; two-point perspective where all the verticals are parallel but all other lines converge on lateral vanishing points and three point perspective where the verticals converge to a point upward, or downward from a bird's-eye view.⁶⁵ Significantly, Pipes notes that line, shape, texture, value, and colour have spatial properties and gives the example of how a modulated line can evoke the same depth of space as a line in perspective.⁶⁶

The spatial properties of colour are of particular interest. Warm, bright or saturated colours appear to advance when surrounded by the opposite while cool colours contract and recede.⁶⁷ These effects can be subverted by surface qualities; a glossy surface will appear lighter and affirm the surface as it reflects more light, like a mirror. A matte surface will refract and diffuse light and readily permit seeing into pictorial space.

Richard Etlin has explored the response to art involving a bodily and spatial sense of self.⁶⁸ Etlin notes it is the spatial self which is largely engaged in the sublime experience of "transport and transcendence."⁶⁹ However Bachelard's sense of merging of the inner space with the outer world, seems to be more relevant here. Where Etlin's description has a sense of moving beyond the body, Bachelard's is a sense of expansion of the spatial self to include both inner and outer, an experience of connectedness with the infinite.⁷⁰ This is also the kind of experience suggested by Robert Rosenblum in his linking of paintings by Abstract Expressionists with those of the Romantic painters.⁷¹ In beholding a Rothko painting, Rosenblum believes the viewer replaces the depicted spectator in a painting by J.M.W. Turner or Caspar David Friedrich (Fig. 8); where the tiny figure functioned as "a bridge of empathy" between viewer and grand landscape,

⁶⁴ Lois Swirloff, *Dimensional Color* (New York: W.W. Norton and Co., 2003), 18.

⁶⁵ Alan Pipes, *Foundations of Art and Design*, Second ed. (London: Laurence King Publishing, 2008), 80-98.

⁶⁶ *Ibid.*, 108.

⁶⁷ *Ibid.*, 168-69.

⁶⁸ Richard E. Etlin, "Aesthetics and the Spatial Sense of Self," *The Journal of Aesthetics and Art Criticism* 56, no. 1 (1998): 1.

⁶⁹ *Ibid.*

⁷⁰ Bachelard, *The Poetics of Space*, 203.

⁷¹ Robert Rosenblum, "The Abstract Sublime," *Art News* 59 (1961): 40.

the beholder of a Rothko painting has a more direct experience without the intermediary (Fig. 9).⁷²

Turner and Friedrich present landscape vistas in which tiny figures are located, indicating to me a great traversing of pictorial space by the beholder across the space of reception, to the figure and infinitely beyond. The figures are like ciphers in immense spaces, signs to look beyond. In Rothko's paintings, the viewer is presented with a room-like scale with large forms. While the velvety dark fields of the *Seagram paintings* suggest temples and portals rather than landscapes, some of the *Black-Form paintings* are akin to standing in front of a closed door. In both examples, Rothko's architectonic forms are near the picture plane and command participation rather than spectatorship. Minimal pictorial space from the picture plane to the 'figures' suggests an immediacy of presence, like meeting a façade, followed by a timeless, depthless space and as much time as one desires to negotiate the void. Compositional structures therefore provide spatial cues and suggest pictorial distance which may affect the time taken to negotiate pictorial space and thereby influence the viewer's experience.

Rothko's paintings suggest the ways, other than by the depicted imagery, that pictorial space might be disrupted in a painting. Close observation of the material methods in which spatial phenomena are evoked in paintings can reveal where and how Berger's break in pictorial space occurs. From my observations, I have compiled a list of some spatial causes and effects:

- The three-dimensional thickness of the painted surface creates highlights and shadows and appeals to the sense of touch.
- Real space is created by the layering and juxtaposition of different paint qualities and mediums and evokes a deeper three-dimensional space.
- Two-dimensional space of the area within the edges of the painting relates to the beholder's body as being large or small, or comparable and in rapport.
- Format might suggest a rectangular horizontal stretch, an upward reach, or the stability of the square.
- A sense of illusionary space may occur through the means of colour interactions causing the appearance of luminosity.

⁷² Ibid.

- Luminosity seems to move outward from within a painting and inwardly too, permitted by a satin or matte surface and prevented by a highly reflective surface or problematic lighting.
- The quality of blurred edges shifts things further away whereas crisp edges clarify and advance.
- Compositional strategies informed by the traditions of perspective implicate the beholder allowing for their visual entry from an ideal viewing position.
- The modelling of forms and use of shadows tells of light, time and space.
- Hanging height, lighting and room size influence luminosity, and the movements of the viewer.

All of these experiential elements operate in the world, implicate the beholder and indicate further areas for discussing experiences of spatial illusions generated through painting.

Philosopher Alex Potts links beholding and space, in three main points arising from the theories of phenomenologist Maurice Merleau-Ponty (1908-1961).⁷³ Firstly, in the beholding of an artwork, "situated viewing" occurs; the focus is no longer just on the artwork but the viewer's encounter with it as a process occurring in a larger environment.⁷⁴ Secondly, the viewer responds simultaneously subjectively and objectively, bodily and mentally, with interplay between the kinaesthetic, tactile and the visual.⁷⁵ Consequently, beholding is about the interactions between one's body and the world, and in this case, the painting. Thirdly, seeing is a dynamic process: "a constantly changing apprehension of things unfolding in time, shaped by our bodily movements."⁷⁶ These are vital conditions for the poetics of space, providing useful considerations for its discussion. However, Merleau-Ponty assumed that these responses were not compatible with a cognitive one.⁷⁷ In applying my model and in the discussion of my responses as a beholder, researcher and painter, I necessarily take an alternative view.

⁷³ Alex Potts, "Maurice Merleau-Ponty (1908-1961)," in *Key Contemporary Thinkers*, ed. Diarmuid Costello and Jonathan Vickery (Oxford and New York: Berg, 2007).

⁷⁴ *Ibid.*, 134.

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*, 135.

Luminous sensations

"[C]olour is only a *sensation*", asserted Rood, "generated by the action on the eye of coloured light".⁷⁸ The sensation of luminosity refers to both the two and three-dimensional phenomena of colours on the surfaces of some paintings appearing to hover forward or away from the picture plane. Birren lists luminosity as one of several kinds of perceptions of colour where he describes different phenomena for the colour red, or "modes of appearance": as filmy and atmospheric like a sunset, as volume like a glass of wine, transparent like cellophane, luminous like a red light, dull like suede, lustrous like silk, metallic like a Christmas bauble or iridescent like a jewel.⁷⁹ In describing the luminosity of paintings, the terms surface, volume and film colours have been employed: "*surface colours*" as those on the picture plane, whereas atmospheric "*film colours*" and "*volume colours*" appear to have three-dimensional boundaries.⁸⁰ Birren's citation of David Katz's (1935) definition of luminosity describes spatial effects: "Colors which appear filmy or voluminous must exceed their surroundings in brightness if they are to produce the impression of luminous color."⁸¹

The apparent dissolution of Rothko's paintings, while they remain material, is the shift between the two modes of colour phenomena that John Elderfield described as "the tug-of-war that occurs between perception of Rothko's paintings in the surface and film modes."⁸² The perceptual co-existence of the real surfaces in painting and the spatial illusions of film modes of colour that are employed are examined further in subsequent chapters. At this juncture my question concerns the surface conditions needed to create luminosity.

Birren uses the painting of James McNeill Whistler to illustrate the spatial effects of luminosity. Birren observes that Whistler was able to create a sense of film and volume colour through painting surface colours of bright scintilla on areas of soft coloured greys.⁸³ He goes on to say that J.M.W. Turner achieved luminosity in his paintings, by

⁷⁸ Ogden N. Rood, "On the Abnormal Perception of Colour, and on Colour-Blindedness," in *Modern Chromatics*, ed. Faber Birren (New York: Van Nostrand Reinhold Company, 1973), 139.

⁷⁹ Birren, *Creative Color. A Dynamic Approach for Artists and Designers.*, 60-61.

⁸⁰ Birren, *Color Perception in Art*, 35.

⁸¹ *Ibid.*, 53.

⁸² Elderfield, "Transformations," 110.

⁸³ Birren, *Color Perception in Art*.

his use of pure tints beside subtle greys.⁸⁴ These paintings relied therefore on the contrast of pure colour with grey to create the required luminosity.⁸⁵ This is also known as a variety of simultaneous contrast identified and described by the French dye chemist M. E. Chevreul in 1839.⁸⁶

In his discussion of the teachings of Kandinsky, Clark V. Poling describes simultaneous contrast as the juxtaposing of two colours of different hue and value, to make them tend toward their opposites; the lighter colour will appear lighter still, and the hue will tend towards the complement of its neighbour.⁸⁷ The spatial effects of simultaneous contrast described in Kandinsky's writings are irradiation and animation.⁸⁸ The perceptual psychological term irradiation indicates the seeming spread of colour into surrounding areas beyond where the pigment is contained.⁸⁹ Animation is a dynamic of colour interaction where blue, for example, seems to contract (concentric) and yellow appears to move outward (eccentric).⁹⁰ Thus luminosity may be described in terms of light and material; as the film colour which emanates and casts its light over adjacent areas, as irradiation or eccentric animation and the hue and value of colours juxtaposed from which light appears to emanate.

While sensations of luminosity in paintings can be perceived through the actions of simultaneous contrast on the visual system, different qualities of luminosity can also be achieved through other kinds of colour contrasts and approaches to the modelling of forms. In investigating and describing these other approaches I consider the work of Johannes Itten, Margaret Livingstone and Rudolph Arnheim.^{91 92 93}

⁸⁴ Ibid., 9.

⁸⁵ Ibid., 54.

⁸⁶ Kemp, *Science of Art Optical Themes in Western Art from Brunelleschi to Seurat*, 306.

⁸⁷ Clark V. Poling, *Kandinsky's Teaching at the Bauhaus. Colour Theory and Analytical Drawing* (New York: Rizzoli, 1986), 55.

⁸⁸ Ibid., 53.

⁸⁹ Ibid.

⁹⁰ Ibid., 53-54.

⁹¹ Johannes Itten, *The Art of Colour*, trans. Ernst van Haagen (New York: John Wiley & Sons, 1973).

⁹² Livingstone, *Vision and Art: The Biology of Seeing*.

⁹³ Arnheim, *Art and Visual Perception a Psychology of the Creative Eye*.

Relevant methods of modelling forms in painting include chiaroscuro, the colour saturation system and colour change.⁹⁴ Hall describes the colour saturation system as instructed by Cennino Cennini (1437), as a technique which “placed pure tones in the shadows and modelled up by the addition of white through the midtones to the lights.”⁹⁵ “Colour change” or *cangiantissimo* is where shadows, midtones and lights are created by shifting to another hue of higher or lower value.⁹⁶ John Shearman explains Michelangelo’s employment of colour change for the garments of the Sistine Chapel figures where he created a “gradient of tone” so that the yellow was high value, red and green mid-value and blue of low value; modelling worked by change of colour employed as tone.⁹⁷ This technique was recommended by Cennini for the painting of drapery and was used in garments to great effect by Fra Angelico (Fig. 10).⁹⁸ The colour juxtapositions, in effect, create luminosity through simultaneous contrast.

Margaret Livingstone makes several useful distinctions for observing and generating luminosity and colour in paintings.⁹⁹ Firstly, “Luminance, or what artists refer to as value, is perceived lightness...determined by how sensitive our eyes are to that color of light.”¹⁰⁰ Luminosity depends on ambient and artificial light levels.¹⁰¹ This is well illustrated by T.J. Clark writing about his examination of Poussin’s paintings at the J. Paul Getty Museum, Los Angeles.¹⁰² Clark noted that he had “good mornings” when the sky was overcast as there was a “sober, appropriate top light” for a short time without the blaze of lamps.¹⁰³ Clark comments that this enabled him to see the quality of painted back lighting in *Landscape with a Snake* (Fig. 11).¹⁰⁴

Lighting is a highly relevant consideration for the beholding of paintings, as chief conservator at the Courtauld Institute Stephen Rees Jones noted; light which illuminates the painting is reflected, refracted, scattered and absorbed on its path inward and

⁹⁴ Itten, *The Art of Colour*, 17.

⁹⁵ Hall, *Color and Meaning Practice and Theory in Renaissance Painting*, 16.

⁹⁶ *Ibid.*, 20.

⁹⁷ John Shearman, “The Functions of Michelangelo’s Color,” in *The Sistine Chapel a Glorious Restoration*, ed. Pierluigi De Vecchi (New York: Harry N. Abrams, 1994), 85.

⁹⁸ Cennini, *The Craftsman’s Handbook “Il Libro Dell’arte”*, 53-54.

⁹⁹ Livingstone, *Vision and Art: The Biology of Seeing*.

¹⁰⁰ *Ibid.*, 37.

¹⁰¹ *Ibid.*, 45.

¹⁰² T.J. Clark, *The Sight of Death. An Experiment in Art Writing* (New Haven: Yale University Press, 2006).

¹⁰³ *Ibid.*, 123.

¹⁰⁴ *Ibid.*

outward through layers of varnish, medium and pigments.¹⁰⁵ Light rays are reflected from the smooth surface at the same angle at which they strike, otherwise light is diffusely reflected.¹⁰⁶ Refraction is when light changes speed and bends as it enters the painted surface.¹⁰⁷ Reflection and refraction occur at each interface of the painted surface and vary depending on the paint qualities.¹⁰⁸

Secondly, Livingstone discusses the dynamic effect of equiluminant colours. The juxtaposition of colours with the same value (or tone) appear to have unstable boundaries and jostle or flicker due to the perception of value and hue by different parts of the brain.¹⁰⁹ While the cerebral area responsible for perceiving colour senses the hue distinction, the area responsible for determining *where* the colours are in space recognises value, but not hue.¹¹⁰ When the values of contrasting colours are similar, the brain perceives them as being both lighter and darker than each other and they appear to move.¹¹¹ The *where* system is sensitive to value shifts for the perception of shapes and depth, although with low contrast this system will use shading and perspective cues.¹¹² The increasing or decreasing size and thickness of marks provide spatial cues in addition to the effects of shimmering light on the water in Alfred Sisley's paintings of the *Welsh Coast at Penarth* (Fig. 12), viewed while on temporary exhibition at the National Gallery, London (2008).¹¹³ When such cues are not present, areas of colour may appear to hover forward or back from the picture plane depending on their warmth/coolness, thickness and size of marks and sheen of their surfaces in relation to those adjacent. Thus, the unstable flickering of colour produced by equiluminance has spatial effects determined by materiality.

Livingstone also argues that the visual perceptions of colour and luminance are more sensitive to abrupt shifts rather than gradual changes.¹¹⁴ Rembrandt's *Meditating*

¹⁰⁵ Rees Jones, "A Note on the Transfer of Light into and out of Paintings," 174.

¹⁰⁶ <http://physics.bu.edu/~duffy/PY106/Reflection.html>, "The Reflection and Refraction of Light. Rays and Wave Fronts," (1999).

¹⁰⁷ *Ibid.*

¹⁰⁸ Rees Jones, "A Note on the Transfer of Light into and out of Paintings."

¹⁰⁹ Livingstone, *Vision and Art: The Biology of Seeing*, 38.

¹¹⁰ *Ibid.*, 66.

¹¹¹ *Ibid.*

¹¹² *Ibid.*, 133.

¹¹³ Ann Sumner, "Sisley's Views of Wales Lost and Found," in *Sisley in England and Wales*, ed. Christopher Riopelle and Ann Sumner (London: National Gallery, 2008).

¹¹⁴ Livingstone, *Vision and Art: The Biology of Seeing*, 58.

Philosopher (Fig. 13) illustrates his mastery of “combining gradual background changes in luminance with abrupt local changes to produce the appearance of greater shifts in luminance than are actually there.”¹¹⁵ Arnheim’s explanation for Rembrandt’s luminosity might also go some way toward explaining the phenomena of the luminous darks mentioned in the Introduction.

An object appears luminous...by surpassing the average brightness established for its location by the total field. Thus the uncanny glow of rather dark objects comes about when they are placed in an even darker environment. Furthermore, luminosity results when brightness is not perceived as an effect of illumination. To this end, shadows must be eliminated or kept to a minimum.¹¹⁶

In this way, Rothko’s dark rectangles appear to glow in an even darker ground. Writer Sue Hubbard describes the sense of immersion in Rothko’s *Black-Form* paintings that “appear to radiate with an intense luminosity”.¹¹⁷ On examination of his *Black-Form* and *Seagram* paintings, the different degrees of tone, surface quality and temperature of darkness are significant for the beholder’s experience of spatial phenomena. The simplest way to achieve luminosity, Birren affirms, is to surround the colour with darker tones, however, the real power of luminosity is achieved by purity of colour contrast.¹¹⁸

The contrast of colour purity leads to the consideration of other kinds of contrasts involved in the perception of luminosity. *Contrast of hue*, notes Itten, occurs where at least three undiluted colours are used and is especially strong with the combination of red, yellow and blue; Itten gives the examples of Fra Angelico and Matisse, who based their colour compositions on contrasts of hue.¹¹⁹ Zurbarán’s paintings illustrate *light-dark contrast*, the strongest being the contrast between black and white.¹²⁰ *Cold-warm contrast* is that created by the apposition of cool and warm colours where red-orange is considered the warmest and suggests nearness, dryness, stimulation and density, and blue-green is the coldest and associated with shadow, sedation, transparency, distance

¹¹⁵ Ibid., 125.

¹¹⁶ Arnheim, *Art and Visual Perception a Psychology of the Creative Eye*, 325.

¹¹⁷ Sue Hubbard, "A Space to Daydream," *New Statesman* (2008): 40.

¹¹⁸ Birren, *Creative Color. A Dynamic Approach for Artists and Designers.*, 79.

¹¹⁹ Itten, *The Art of Colour*, 37.

¹²⁰ Ibid., 46.

and moisture.¹²¹ *Complementary contrast* occurs where two opposite colours are used side by side, to create maximum brilliance in each, as in the paintings of Jan van Eyck.¹²² *Contrast of saturation*, as in the paintings of Georges de la Tour, creates contrast between pure colours and diluted colours.¹²³ Finally, *contrast of extension* occurs between the contrast of two or more areas of colour one large, one small, such that the minor colour becomes more vivid.¹²⁴

The generation of a luminous area in a painting depends on colour relations. The identity of a colour is determined by relation or by what colours are juxtaposed, thus Arnheim describes the colour contrasts in terms of interaction and assimilation.¹²⁵ The strongest interaction is that of complementary colour contrast which “serves to heighten it [the colour] where it already exists...or to modify colours in the direction of such complementarity if they are reasonably close to it.”¹²⁶ Arnheim illustrates his case with Josef Albers’s *Interaction of Colour*.¹²⁷ The opposite, assimilation, occurs due to a merging of similar juxtaposed hues of small areas.¹²⁸ Assimilation is seen in some of Albers’ paintings and creates luminosity through surrounding pale tertiary greys with more pure colours (Fig. 14). In these conditions there is both assimilation and simultaneous contrast, as the “contrast of purity”.¹²⁹

Assimilation is more commonly seen in the kinds of atmospheric perspectival effects of colour as summarised by Willats: “the tonal distances between objects are reduced with distance, colors become cooler (that is, they tend more toward the blue end of the spectrum), colors become less saturated, and the contours of objects become less sharp.”¹³⁰ This can be seen in Turner’s *Sun rising through Vapour: Fishermen cleaning and selling Fish* (Fig. 15). The technique of painting subtle tonal transitions for atmospheric effects is also called *sfumato*. In many of Turner’s paintings it is employed to create a spacious ground on which higher value buttery paint becomes the luminous edges of clouds and illuminated ripples in water.

¹²¹ Ibid., 65.

¹²² Ibid., 78.

¹²³ Ibid., 96.

¹²⁴ Ibid., 104-06.

¹²⁵ Arnheim, *Art and Visual Perception a Psychology of the Creative Eye*, 362.

¹²⁶ Ibid., 363.

¹²⁷ Ibid.

¹²⁸ Ibid.

¹²⁹ Birren, *Creative Color. A Dynamic Approach for Artists and Designers.*, 79.

¹³⁰ Willats, *Art and Representation New Principles in the Analysis of Pictures*, 232.

This chapter notes the limitations of a strictly analytical approach for discussing paintings. A sensory poetic model, based on the art writings of Berger and an enquiry framework has been developed. Aspects of colour theory, materiality of surface and spatial considerations were investigated to more comprehensively inform the discussions of paintings in later chapters. Through this process some of the spatial effects of both luminosity and materiality of surface are clarified. Colour employed as light may behave like film and volume colour, especially created by contrast of colour purity and simultaneous colour contrast. Other interactions and assimilations of colours can create luminous atmospheric effects. Surface materiality in terms of mark, thickness and quality of paint, and the reflection and refraction of ambient light all create pictorial spatial cues and affect seeing into or onto the surface.

All this makes for a range of considerations reflecting the complexities of painting, as Potts notes, experience of a painting is phenomenological, that is, tactile, kinaesthetic and visual in a way that unfolds through time with the beholder's movement.¹³¹ These kinds of experiences will be conveyed in Chapter Two along with discussion of luminosity, materiality of surfaces and spatial effects, though examining paintings by Mark Rothko and Fra Angelico.

¹³¹ Potts, "Maurice Merleau-Ponty (1908-1961)," 134.



Fig. 7. Francisco de Zurbarán, *The House at Nazareth*, c. 1631-1640, oil on linen
165 x 230 cm, Cleveland Museum, Ohio.



Fig. 8. Caspar David Friedrich, *Monk by the Sea*, 1808-10, oil on canvas, 110 x 171.5 cm,
Alte Nationalgalerie, Berlin.



Fig. 9. Mark Rothko, *Untitled*, 1969, acrylic on canvas, 206.4 x 236.2 cm,
Collection of Kate Rothko Prizel.



Fig.10 Fra Angelico, *The Presentation*, 1440, fresco, Cell 10 San Marco Museum, Florence.



Fig. 11 Nicolas Poussin, *Landscape with a Man killed by a Snake*, 1648, oil on canvas, 118.2 x 197.8, The National Gallery, London.



Fig. 12 Alfred Sisley, *The Cliff at Penarth, Evening, Low Tide*, 1897 oil on canvas, 54.4 x 65.7 cm, The Museum of Wales.



Fig. 13 Rembrandt van Rijn, *Philosopher in Meditation*, 1632, oil on wood, 28 x 34 cm
Musée du Louvre, Paris.

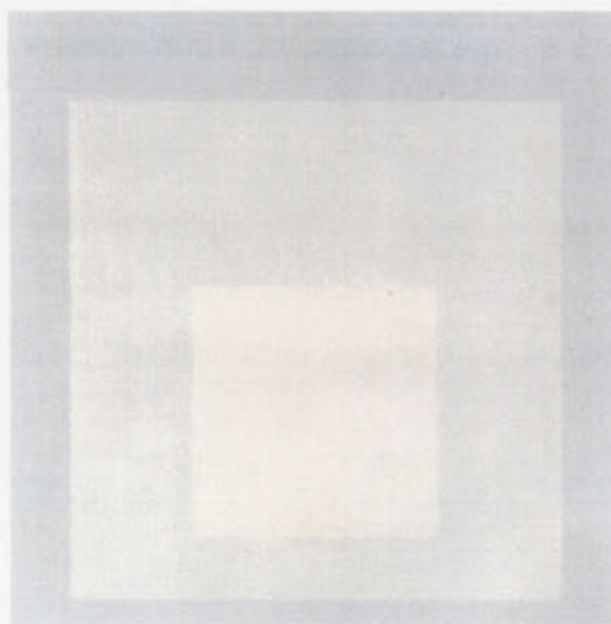


Fig.14 Josef Albers, *Homage to the Square: Dimly Reflected*, 1963
oil on masonite, 61 x 61 cm.



Fig. 15 J.M.W. Turner, *Sun rising through Vapour: Fishermen cleaning and selling Fish*, 1807, oil on canvas, The National Gallery, London.



Fig. 16 Fra Angelico, *The Transfiguration*, 1441, fresco, 181 x 152 cm, Cell 6, San Marco Museum, Florence.

CHAPTER TWO: Investigating the spatial and poetic effects of luminosity and materiality in paintings by Fra Angelico and Mark Rothko

In this chapter I analyse the luminous and material surface qualities of selected paintings by two artists renowned for the luminous quality of their works, fifteenth century painter Fra Angelico (ca. 1395-1455) and Abstract Expressionist painter Mark Rothko (1903-1970). The examination of specific paintings from Fra Angelico's San Marco fresco cycle and Mark Rothko's late works, seeks to elucidate ways in which luminosity and materiality create pictorial space and affect phenomenological space, and speculate on how these spatial effects might be experienced. Specific perceptual, technical and poetic aspects of their works are considered using the *sensory poetic model* outlined in the previous chapter.

Fra Angelico's and Rothko's paintings were awe-inspiring. My first-hand experience of these artists' paintings was entirely different to the book-sized or screen-sized images that I was familiar with. I realised that my physical presence was a critical dimension, in experiencing the different environments of convent cell and spacious gallery, and the effects of luminosity within and beyond each of these artists' paintings. Merleau-Ponty raises the relevant point about the significance of "situated viewing", as discussed in Chapter One, in which the architectural environments where each artists' work is located affect beholding in different ways.¹

Rothko visited the San Marco frescoes (Florence, about 1438-1450) in 1959 and 1966. The likely influence of them on his work has been conceived in the literature in three related ways: his preference for the single beholder, the intention of evoking transcendence and the creation of luminous, austere paintings. These points are central to the concerns of my thesis through linking the feature of luminosity, the phenomenology of beholding and the poetic experience.

Giovanni Carandente documents the huge impact of the frescoes on Rothko and asserts "what impressed him [Rothko] most was the relationship between the frescoed scene

¹ Potts, "Maurice Merleau-Ponty (1908-1961)," 134.

and the single viewer for whom they were intended."² The phenomenological relationship sought might be conducive to poetic reverie as described by Bachelard where the "senses awaken and fall into harmony"³ The lone beholder is also reminiscent of Friedrich's *Monk by the Sea* (1809), and Robert Rosenblum's suggestion that in the viewing of Rothko's works the beholder becomes the monk.⁴

This was literally the case for the beholders of Fra Angelico's frescoes in the San Marco cells. Like the weighty Medieval crucifixes of Florence, their powerful presence commanding veneration, the frescoes continue to suggest that they are for private acts of contemplation. While the reverence for the paintings and negotiating the encounters of others occurs in both gallery and convent, the spatial experiences of each are quite different. The life-size figures of the cell frescoes suggest a rapport with the viewer. This kind of personal experience and the actual frescoes are protected by the cells. Viewed from ancient doorways, beholding is intimate, slow and mostly solo compared with my experience of Rothko's enormous Seagram paintings. Temporarily exhibited in a vast gallery designed for large viewing audiences, the movement of people might be likened to attending the Stations of the Cross in the Catholic tradition.

Didi-Huberman, in accounting for Fra Angelico's work, agrees with Michael Baxandall (1972) that he would have referred to the theology of Thomas Aquinas regarding the "devotion" of his painting practice. Aquinas's devotion was not a simple matter according to Didi-Huberman, but rather a state caused by *contemplatio*, an extreme and difficult discipline where one aimed to see God in oneself.⁵ Fra Angelico would have aspired to this in his practice as a painter.⁶ Significantly, Fra Angelico's intention "to reach the inner life of the heart and mind" of the beholder through his light-filled paintings, symbolic of illuminating divine light, is in accord with Thomist theology.⁷

² Giovanni Carenente, "Mark Rothko's Three Italian Journeys," in *Rothko*, ed. Oliver Wick (Milano: Skira, 2007), 38.

³ Gaston Bachelard, *The Poetics of Reverie. Childhood, Language and the Cosmos*, trans. Daniel Russell (Boston: Beacon Press, 1969), 6.

⁴ Rosenblum, "The Abstract Sublime," 40.

⁵ Georges Didi-Huberman, *Fra Angelico Dissemblance and Figuration*, trans. Jane Marie Todd (Chicago: The University of Chicago Press, 1995), 24.

⁶ *Ibid.*

⁷ Hood, *Fra Angelico at San Marco*, 165.

As neither wall nor object resting on its surface, the San Marco frescoes possess an ephemeral quality in addition to their luminosity and interaction with ambient light. While Rothko's paintings evoke the gravitas embodied by the crucifix, the making of light in his paintings was also of primary importance. Elderfield notes that he made his paintings for the beholder for whom "[p]ictures must be miraculous" and with the aim "to deliver transcendence".⁸ Rothko, informed by his experiences in theatre, saw light as the means to achieve this.⁹ Mood, Rothko believed, could be conveyed through light. He saw it as introducing humanity and sought to connect individual emotion with the universal, as Rembrandt had succeeded in doing through his use of light to create form, depth and ambience.¹⁰

The American critic Peter Schjeldahl suggests that Fra Angelico's employment of colour was "advancing" as he used it to assist in the creation of pictorial depth.¹¹ Fra Angelico's choice of colour was, however, also for symbolic, educative and inspirational purposes as evidenced through the scholarship of William Hood.¹² Marcia Hall notes that Fra Angelico formulated his own convincing visual language merging depictions of closely observed objects and natural phenomena, with evocations of divine, "supernatural" light.¹³ Fra Angelico achieved this through his continued employment of the vibrant systems of saturation modelling and colour change, even though the realism of the Albertian system, as mentioned earlier, was more fashionable. In effect, he was using colour interactions to create luminosity.

Fra Angelico employed painted light in ways that both articulate and flatten pictorial space. For example, the mandorla of light around the Christ figure in *The Transfiguration*, is so intense that it almost seems solid (Fig. 16). This has the effect of projecting the figure forward of the picture plane into the viewer's space of reception. Fra Angelico also created a sense of indefinite atmospheric space with penumbra of

⁸ Elderfield, "Transformations," 116.

⁹ Mark Rothko, *The Artist's Reality Philosophies of Art*, ed. Christopher Rothko (New Haven: Yale University Press, 2004), 34.

¹⁰ Ibid.

¹¹ Peter Schjeldahl, "Fra Angelico," in *Let's See Writings on Art from the New Yorker*, ed. Peter Schjeldahl (London: Thames & Hudson, 2008), 187.

¹² Hood, *Fra Angelico at San Marco*.

¹³ Hall, *Color and Meaning Practice and Theory in Renaissance Painting*, 43.

coloured light and cloud forms in *The Coronation* (Fig. 17). Subsequently I will show that Rothko also evoked atmospheric and intense forms of luminosity.

The San Marco frescoes and Rothko's paintings are both known for their ethereal sense of light.¹⁴ Diane Cole-Ahl describes the resonances of the San Marco frescoes in Rothko's paintings: "[i]n the austerity, subtle yet luminously tinted hues and dry textures that typify the floating rectangular fields of Mark Rothko..., such as *Untitled*, there are distinct echoes of the frescoes of San Marco" (Fig. 18).¹⁵ Cole-Ahl suggests two significant features through her use of the terms "luminously tinted hues" and "dry textures". Often mentioned in the literature, the generation of luminous effects and seemingly dry surfaces in the works of both artists demands further explanation.

Dore Ashton more accurately informs the reader that in his frescoes:

Fra Angelico scaled down his colors to their faintest values, taking advantage of the soft white ground of fresco to create an evenly flowing, unnaturally pale light.... He conjures a space that knows no limits and yet flows tangibly before one's eyes.¹⁶

While invoking both spatial and tactile qualities, Ashton notes that Rothko was especially moved by the frescoes in terms of their "austere power" and their "air of immateriality" and suggests these memories were with him as he made the three different cycles of the Seagram commission.¹⁷ However while Fra Angelico's frescoes are light, Rothko's Seagram paintings are dark, and it is surprising that Ashton does not mention this contrast.

Before discussing Rothko's luminous darks, there is a point of contention to address in Ashton's and others' essays – a troubling disassociation of colour and light. These critics write as if value, the degree of lightness of a colour, is independent of colour. Value, however, is defined as a dimension of colour.¹⁸ While Ashton relates high value

¹⁴ Ashton, "Rothko's Frame of Mind," 21.

¹⁵ Diane Cole-Ahl, *Fra Angelico* (London: Phaidon, 2008), 224.

¹⁶ Ashton, "Rothko's Frame of Mind," 21.

¹⁷ *Ibid.*

¹⁸ William Charles Libby, *Color and the Structural Sense* (Englewood Cliffs, New Jersey: Prentice-Hall, 1974), 8.

colours with Angelico's unnatural light, later in her essay she notes "[l]ight, not color was for him [Rothko], as it was for Fra Angelico, the transcendent quality."¹⁹ Although both artists used colour to create luminosity with great discernment, Rothko's use of paint mediums has been given as a major reason for the appearance of light emanating from within his paintings.²⁰

Several authors consider the significance of Rothko's unconventional use of mediums. Dana Cranmer reports on Rothko's paint as highly diluted with a variety of mediums as a reason for their luminosity by allowing light to enter the layers of paint and be reflected back.²¹ Carandente notes that the luminosity of Rothko's paintings is created primarily by his use of a combination of oil, acrylic and egg-based media.²² Through microscopic and chemical analyses, Carlyle, Boon, Bustin and Smithen reveal the different mediums and paints used by Rothko, and mention the importance of visual interaction between layers for the luminosity to occur.²³ In one of the *Seagram* paintings, the authors report that the maroon background is made of ultramarine blue, lithol red, iron oxide and cadmium red and the figure is painted with the same reds and coated with a glossy glaze made with whole egg.²⁴

Carlyle et al attribute the "dynamic effect" of Rothko's late series works to small differences in pigment combinations and the surface play of matte and gloss as can be seen in Figure 19.²⁵ They do not describe the dynamism of the illusion of reversal of the figure-ground relations often experienced when beholding Rothko's *Seagram* paintings, depending on the lighting, the viewer's movement and location of beholding. This spatial dynamic was easily experienced despite the mild fading of red in the Tate's

¹⁹ Ashton, "Rothko's Frame of Mind," 21.

²⁰ Leslie Carlyle et al., "The Substance of Things," in *Rothko* (London: Tate Publishing, 2008).

²¹ Dana Cranmer, "Painting Materials and Techniques of Mark Rothko: Consequences of an Unorthodox Approach," in *Mark Rothko 1903-1970 Revised Edition* (London: Tate Gallery Publishing, 1999), 92.

²² Carandente, "Mark Rothko's Three Italian Journeys," 36.

²³ Carlyle et al., "The Substance of Things," 84.

²⁴ *Ibid.*, 81.

²⁵ *Ibid.*

Seagram murals; the fugitive nature of lithol red and its negative chemical interaction with ultramarine have been reported by conservator Harriet Standeven.²⁶

Christopher Rothko notes that for his father, light was readily linked with the “sensual experience” and his expressive use of it was achieved through *sfumato* and *chiaroscuro*, as conceived by Leonardo da Vinci.²⁷ On examination, however, the luminosity in Rothko’s paintings includes not only the light-dark contrast of *chiaroscuro* and the subtle colour shifts of *sfumato*, but several kinds of colour contrast delivered by the juxtaposing and layering of translucent colours. Rothko’s choice of colours creates the perceptual effects of equiluminance, assimilation and simultaneous contrast. Gillo Dorfles refers to this as an “explosive ‘tonalism’ of colour” (the same as equiluminance, as described in Chapter One) enabled by Rothko’s compositions of floating rectangular shapes of similar value colours that interact to create an unsteady dynamic between figure and ground.²⁸ Tonal colour interactions may appear to glow or hover as the visual brain has difficulty determining their locations on the picture plane.

Light appears to emanate from both Fra Angelico’s and Rothko’s paintings through the laying down and juxtaposing of transparent or translucent pigmented liquid mediums on supports that allow the entry, reflection and refraction of light. Although Rothko (1957) claimed that he was not interested in colour relations and to focus on this was to “miss the point”,²⁹ his mixing of the perfect colour was of utmost importance as described by his studio assistant William Scharf (in the James E.B. Breslin Research Archive on Mark Rothko).³⁰ Nevertheless, a painter who has not missed the point is likely to be curious about Rothko’s paintings’ material luminosity.

I will now more specifically discuss the spatial and poetic aspects of these material interactions through the examination of a selection of Fra Angelico’s and Rothko’s

²⁶ Harriet A. L. Standeven, "The History and Manufacture of Lithol Red, a Pigment Used by Mark Rothko in His *Seagram* and *Harvard* Murals of the 1950's and 1960's," *Tate Online Journal Research Tate Papers*, no. Autumn (2008).

²⁷ Christopher Rothko, "Mark Rothko's the Artist's Reality: Philosophies through an Italian Lens," in *Rothko* (Milan: Skira, 2007), 29.

²⁸ Gillo Dorfles, "A Song without Words... an Encounter with Mark Rothko," in *Rothko* (Milan: Skira, 2007), 42.

²⁹ Rothko cited by Elderfield, "Transformations," 101.

³⁰ Scharf cited by Carlyle et al., "The Substance of Things," 75-76.

works. My method relies on the direct experience of these paintings which I studied in Florence and London.

The frescoes of Fra Angelico

On a cold winter morning mid-November 2008, I visited the Dominican Convent of San Marco in Florence to view the fifteenth century frescoes of Fra Angelico. The following documents my observations and experiences there taken from my journal entries.

I walk along the cloister alongside the garden of St Anthony (Fig. 20) and arrive at the fresco *Christ on the Cross adored by St. Dominic* (Fig. 21). The kneeling life-size figure of St Dominic, level with my torso, at the foot of the crucified Christ seems to suggest that I also kneel. Fra Angelico's attention to life-like details are arresting, such as the veins in St Dominic's hands and the making of tiny holes in the *intonaco* (the fresco surface layer) to indicate the pores of his skin where the stubble of Dominic's beard was returning. There is a sense that the saint has been kneeling here for a long time, but there are no clues as to the time or location. It is a shadowless place, distinguished only by its deep-blueness.

St Dominic's postures or modes of prayer were documented in the instructional *De Modo Orandi*, as noted by Victor Stoichita (Fig. 22).³¹ As an example to the monks in training, Fra Angelico pictured St Dominic as he would have imagined himself praying in one of the nine modes.³² The viewer is privy to the inner life of the saint.

In the eternal moment of this depiction of prayer, the still silence of the blue ground is unaffected by a sudden breeze, signified by the gentle lifting of drapery. As I behold the painting from around two metres away, the marks making up the blue area appear to be compressed and active. The effect is one of the sky pushing forward, slightly oppressively, from behind the figures. As I step back, the blue field appears to recede and expand into deep space, reminiscent of the ultramarine heavens of the fourteenth century Spanish altarpieces in the Catalunyan Museum of Art in Barcelona.

³¹ Stoichita, *Visionary Experience in the Golden Age of Spanish Art*, 186-89.

³² William Hood, *Fra Angelico: San Marco, Florence* (New York: George Braziller, 1995), 55.

The blue 'sky' is luminous through its fluctuations in hue saturations from bright blue to glimpses of the earth pigment that lies beneath. As a field that has both surface and depth and links all of the elements in the painting, the depicted sky can be interpreted as a metaphor for a timeless and infinite space in which any narrative might be imagined. Large red-brown droplets of blood are suspended in the blue field, the momentary held in a sense of monumental time, each as tangible as the other.

A panoramic crucifixion scene stretches across the main wall for more than nine metres in the Chapter Room also linked by a differentiated blue sky (Fig. 23). The azurite is worn away in many places so that the strongly material presence of the layered marks contrast with the finely painted, well-preserved figures. The presence of the sky is ominous with its red-brown ground emerging from beneath the patchy azurite blue. The red earth colour and blue interact and tend to be more vibrant through their contrast. Tonally the red-brown is slightly brighter causing mild fluctuations in value across the surface, darker than appears in reproductions. With ten to twelve metres space of reception, the affect is atmospheric.

I stand several metres away from *The Crucifixion* at the arched entry to the Chapter Room. This location is, I propose, the equivalent place of beholding described by Linville in relation to Agnes Martin's paintings, where the surface appears to shift into atmospheric effects.³³ The red-blue sky seems to meld and swirl with energy currents due to the directional brushmarks of each *giornata* (the area of fresco prepared and painted in a day). As I observe the entire fresco from the archway, I notice that the areas and directions of marks of each *giornata* are balanced on each side, directing the beholder's gaze toward the central crucifix. The marks of the painted sky are large, unlike anywhere else in the fresco and suggest a monumental spaciousness as if it were a void that was built. This structured sky holds the gathering, in a similar kind of universal, dark narrative space as the St Dominic fresco. Rothko's *Seagram* paintings seem to have a strong relation with this fresco in terms of the grandiose scale, the layers of varied marks activating the surface and the employment of interacting colours to

³³ Linville, "Agnes Martin: An Appreciation," 73.

form luminous, dark spaces. These darks reference a timeless and infinite space, holding possible narratives or voids.

While the symbolic location of the fresco scene is Golgotha, by placing Dominican saints there, Fra Angelico suggests that the Dominican observant imagine himself there also. Thus the question *where am I?* seems to be of greater significance than *where* it is in time and place. As in the previous fresco, it is in a timeless place, the encompassing presence of Medieval heaven. The direction of pictorial light appears to come from the doorway, illuminating the outermost folds of garments and flesh. Fra Angelico shows the under sides of the horizontal beams of the crosses and along with the attending crowd slightly higher and thus further away from my body, he implicates my location with them beneath the crosses. The orthogonals indicate depth but there is no vanishing point and only the slightest of shadows anchor the figures to the ground. The minimal shadows enhance the luminous interactions of colours.³⁴

Half way up the stairs to the first floor where the cells are, I turn ninety-degrees on the mezzo-landing and am surprised by the north corridor's *Annunciation* (Fig. 24). The scene appears high enough on the wall for it to almost fill one's visual field from twelve steps below. The figures in this version of *Annunciation* are life size at this viewing distance of around eight metres. The architectural setting of the painting is the same palette and construction as the convent; at the upper part it is ambiguous as to where the fresco ends and where the real architecture begins. All of the architectural elements are the same as in San Marco, something I could not have realised from the textbook image.

The use of architectural elements in common strongly suggests that the *Annunciation* was envisioned here at San Marco. I see the way that real light from the left window illuminates the wall of the fresco in the same direction that Fra Angelico represented it. This reinforces the painted light in the morning. The depicted cell and the morning light from the window upstairs are set in the garden and cloister downstairs. Imagined with existing elements, the depicted space and occupants suggest to the viewer that here in San Marco this visionary experience is reality.

³⁴ Birren, *Creative Color. A Dynamic Approach for Artists and Designers.*, 80.

At the top of the stairs, the fresco is approximately three metres away. My continued upward gaze reflects the veneration required by Fra Angelico. Two spotlights, located on each side, one metre above and back approximately six metres from the fresco, provide an even light. Painted bars pass between the cloistered arches, articulating the space with their severe orthogonals. At close viewing I notice that brush marks suggest the physical nature of things in the world: stone is painted with the irregularities of stone, wood with painted wood grain and fabric with softly flowing lines.

Fra Angelico also conveyed a sense of the other worldly using materials in a way that must have been very unusual for his time. He mixed silica with his paint for the angel's wings such that they "wink and sparkle" with the reflection of light.³⁵ The sparkling is suggestive of the divine, or numinous; feathers do not normally behave in this way. Mary's chair also sparkles. An intriguing and unstable presence of tiny points of light capture my attention, it is a quality that attempts to link the sacred and the ordinary.

I walk back and forth at the top of the stairs to observe the flickering. If I move quickly, I experience a sense of the angel just landing, wings shimmering. If I move slowly, there is a sparkle or two and then no more. But I cannot stand still. Even with the slightest movement of my head, a single point shines. I am delighted by Fra Angelico's game for the observant, the silica a shiny surprise for those moving through a space that is between places. For the beholder, the flickering contains successive moments of time and motion, of arrivals and departures, echoing the fresco's narrative.

The fabric of Archangel Gabriel's gown silently ripples as the many folds appear to billow and shift with assimilation and mild colour change from pale pink to the colour of flushed cheeks, darker pink, plum to mauve. The contrasting ochre of the floor permits the luminous simultaneous contrast with the angel's gown. In comparison, Mary's dense blue garment is almost without modelling, most likely lost over time. The colours here operate by saturation of contrast, where the pure pigment seems much brighter due to the surrounding less vibrant colours of blue mixed with brown, ochre and earth green. The effect now is strangely atmospheric.

³⁵ Hood, *Fra Angelico: San Marco, Florence*, 48.

The pillar between Mary and the angel divides pictorial space, separating angelic from human form. This is the angel that the beholder is permitted to see, but perhaps it is not Mary's vision; their eyes do not meet. Mary appears to look at something not present with an attitude of humility and omniscience. She seems to know all at once that the news was written, is happening and will be, thus the moment contains the immensity of extending back and forward in time. The divided space is echoed in Mary's divided time between her presence before the angel and her seeing beyond. A very similar narrative split occurred two hundred years later, as noted by Berger; Francisco de Zurbarán depicted Mary looking past the young Christ in *The House of Nazareth* (Fig. 7), into the future: "We are looking at two spaces. She confined to one, *knows*."³⁶ Mary's paused moment of knowing, into time beyond the depicted moment, is held in a circular dynamic by the arches of the cloister. The point to make here is that Fra Angelico's architectural compositions convey this narrative and implicate the beholder through seeming to extend the space and ambience of the pictorial space into the space of reception.

In the Cell 3 *Annunciation*, the repeated arches of the depicted cloister ceiling can be said to relate to Minkowski's concept of reverberation (Fig. 25).³⁷ Fra Angelico's spare compositional employment of these architectural elements also function to hold the main figures and the beholder, and focus my attention on the area of light between the figures. I will discuss this area later.

I notice a shift in my experience from a realisation of the space of the cell and the pictorial space of the fresco as separate spaces, to a momentary sense of dissolution of the boundaries between the real and the depicted spaces, despite the arched shape of the fresco with its painted frame. I suspect this is because of the presence of the arched window and door, the fresco is like another window that implicates looking through. The arched format only reinforces the represented architecture as it appears to breathe through the dynamic intersection of cloistered arches. The pictorial space seems to open out towards me, surround and thus include me; an effect of the continuance of the painted shapes with the same curves and colours of light and shadows of the real vaulted ceiling.

³⁶ Berger, "Art of the Interior," 34.

³⁷ Bachelard, *The Poetics of Space*, 203.

The fresco could not have this inclusive quality without the painting of light. There is a clarity and beauty of light and colour only realised through experiencing the *Annunciation* fresco in Cell 3. It seems far less flat than in reproductions, its scale and format is intimate, easy to relate to. I experience a powerful sense of gentleness transmitted by the fresco; its presence fills the room. This moment reminds me of Benjamin's concept of *aura*; "the authenticity" and "the essence of all that is transmissible", that which is lost through mechanical reproduction.³⁸ This *aura* then, is also an intense experience of the poetics of space.

Cell 3 is a room for one person. While standing in the doorway, one or two others look over my shoulder briefly, respectfully, as if I might be praying. Perhaps the focus of looking intently is quite similar to praying or meditating. Leaning against the crimson cord across the doorway of the cell, I imagine myself two metres to the left in front of the scene, as a monk lying on a palette beneath, looking up at the fresco as the early morning light reflects from the opposite wall. I imagine myself elsewhere because Fra Angelico's approach to perspective does not dictate where I should be in the room. While the orthogonals of the stool, doorway, columns and edge of the loggia do not neatly fit into the Albertian perspectival system, they sufficiently emulate it to construct a convincing space, a kind of open room that is between outside and inside, and implicates my presence.

While entranced by the ways paint is employed to suggest fabric, feathers, skin and the behaviour of light, I am drawn to negotiate the dark fissures disrupting the surface. While linear brush marks of varying widths and lengths reveal the movements of the painter's hand: parallel, rhythmic, methodical and careful, the random cracking across Mary's hands provokes a degree of tension. I almost expect to see blood ooze from a fissure, as the breaching of skin of exemplar saints with their stigmata and various wounds is common in the fresco cycle. My experience shifts between the visual touching of the faintly undulating crazed, slightly gritty surface and seeing into the

³⁸ Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Walter Benjamin Illuminations*, ed. Hannah Arendt (New York: Schocken Books, 1968), 223.

painted light that seems to grow more intense as I look, reinforced by the light streaming in from the adjacent window.

Fra Angelico employed colour as light to articulate the pictorial space using a range of pale tints of pink and ochre toward the front of the depicted room and cooler green glazes in areas toward the rear wall and ceiling. Thus, he used cold-warm contrast to create depth. Simultaneous contrast between the greys and pinks of the architecture creates luminosity especially in the high tone areas; the rose becomes more vibrant and the grey becomes greenish especially near the Mary figure. While there is clarity and solidity of opaque colours employed in the figures, the surrounding architectural composition holds subtle shifts of translucent colours, evoking a sense of the ineffable.

Light appears to emanate from behind the angel toward the Mary figure, from the left to the middle of the composition in front of the loggia wall, through contrast with the angel's rose-pink gown to the left and the cool greenish grey architectural above. This luminous, pale pink-cream area has been noted and discussed from prosaic through to mystical viewpoints. Hood describes the area of luminosity as a "cascade of gossamer pastels", and suggests that the light depicts the natural light in the cloister.^{39 40} It seems to me, however, to have a greater function than pure depiction.

Georges Didi-Huberman writes of the mysterious luminous space between the figures that is also material and "powdery".⁴¹ He initially names the "white patch of wall" as "nothing" and then as "white something".⁴² It is not white, however, and he does not distinguish between the wall of the fresco and the represented wall. These distinctions are important and contribute to the answer of what is there, what its presence stands for, and where it is in space. I will now clarify these distinctions and their significance.

³⁹ Hood, *Fra Angelico: San Marco, Florence*, 48.

⁴⁰ Hood, *Fra Angelico at San Marco*, 233.

⁴¹ Georges Didi-Huberman, *Confronting Images: Questioning the Ends of a Certain History of Art*, trans. John Goodman (Pennsylvania: The Pennsylvania University Press, 2005), 17.

⁴² *Ibid.*

Firstly, the painting of high value colours causes the perception of luminosity and the articulation of space, indicated by the illumination of the room. The light is painted on the represented wall, the main structure that stops the passage of light and defines the space by reflecting light back into the room, thus allowing the beholder to “see the light”. The central area of light is made up of hundreds of tiny brush marks of high value, almost-white colours and brilliant white on a cream ground.⁴³ Fra Angelico juxtaposed the palest tints of ochre, pink, green, grey and aquamarine which assimilate through their similar tones and interact through simultaneous contrast. He created the illusion of luminosity through this judicious use of colour.

The central placement of the luminous area may have the dual functions of referring to Mary’s inner and outer illumination, that is Aquinas’s illumination of the mind by God, and the implied happening in the light of revelation originating from beyond the depicted scene.⁴⁴ ⁴⁵ Didi-Huberman explores the theology of the day and likens the luminous area to the white page of Mary’s prayer book, “a surface of contemplation”, and of “expectancy”.⁴⁶ His approach is contextual and symbolic and does not yield any findings on materiality. While the paradox of co-existent “chalky” materiality and luminosity and the mystery of its meaning is identified by Didi-Huberman as his concern, he does not further explore the technical or material aspects of painted light.⁴⁷

Concluding his investigations and speculations, Didi-Huberman asks again how this “*mystery made paint*” might be so and answers: “Fra Angelico simply used the *presentation* of the white...in the fresco – to ‘incarnate’ on his level something of the unrepresentable mystery”.⁴⁸ Thus the purpose of the paradox of material light is to convey mystery. While Didi-Huberman’s “*mystery made paint*” opens up informative investigations, I am interested in the question of how the painted area in question evokes a sense of mysterious light. Didi-Huberman describes the fresco surface as “powdery”, but this is actually an illusion. I intend to analyse this illusion and

⁴³ Hood, *Fra Angelico: San Marco, Florence*, 48.

⁴⁴ Nash, “Intellection, Three Interpretations of Illumination,” 94.

⁴⁵ Hills, *The Light of Early Italian Painting*, 13-14.

⁴⁶ Didi-Huberman, *Confronting Images: Questioning the Ends of a Certain History of Art*, 20-23.

⁴⁷ *Ibid.*, 17-18.

⁴⁸ *Ibid.*, 23-24.

demonstrate how the painted surface has significant bearing on the material light that Didi-Huberman and I are both concerned with.

As I could not get close enough to examine the fresco surface in Cell 3, close inspection of the North corridor *Annunciation* revealed that it is firmly bound without particles appearing to lift from its surface in a powdery manner. Rather, the surface has a slight satin sheen and looks as though it was smoothed by hand. Cennini described the technique of preparing the fresco surface for the day. He advised: “with a little block the size of the palm of your hand, proceed to rub with a circular motion over the surface of the well-moistened plaster, so that the little block may succeed in ... evening up your plaster nicely.”⁴⁹ Cennini’s advice to then “rub over the plaster with the point of your trowel” may well have compacted and polished the surface.⁵⁰ While the illusion of powdery dryness is not present at close quarters, Didi-Huberman does not say at what distance he viewed the fresco. Viewing distance, however, greatly influences the beholder’s experience of the painting, as described in Chapter One.

Through observations and research findings, I have identified several possible factors which may contribute to Didi-Huberman’s perception of a powdery fresco surface. If he was standing in the doorway of Cell 3, it would be a middle distance viewing where the material details of the surface blur and atmospheric effects occur, as described in Chapter One by Linville, and might thus be perceived as powdery.⁵¹ Secondly, along with viewing distance, the differentiation of the surface by numerous brush-marks provides suitable conditions for seeing into the pictorial space. Countless diagonal parallel lines stream across and downward in an arc toward Mary through this area. Curiously, while William Hood describes the area of light as a “cascade”, Didi-Huberman does not mention the directional marks that significantly flow across and downward toward Mary.⁵² Neither scholar considers the shape of the space between the figures. The angel’s body curves outward in the giving of news and Mary’s body curves inward in a receptive manner. Between them, the light curves outward with the same kind of bulge as pregnancy, and thus the space of a third being.

⁴⁹ Cennini, *The Craftsman's Handbook "Il Libro Dell'arte"*, 44.

⁵⁰ Ibid.

⁵¹ Linville, "Agnes Martin: An Appreciation," 73.

⁵² Hood, *Fra Angelico: San Marco, Florence*, 48.

After looking at the Cell 3 *Annunciation* for a long time, I found its location on the wall's surface uncertain. As it creates film colour, the fresco has an illusion of depth that is unrelated to the construction of pictorial space. Although the hue saturations are low in the luminous area, there are sufficient variations in colour purity to create luminosity and its irradiation as film light by simultaneous contrast. The equiluminance, or equal colour brightness of high value colours, as described in Chapter One, has the effect of tints appearing to advance *and* recede in relation to each other. This perception, while creating the illusion of spatial ambiguity, might create the illusion of powderiness also. While the suppression of shadows helps with the creation of luminosity, the tonal and temperature contrasts of the warm, light area within the slightly darker, cooler surrounding areas provide the conditions for the illusion of its advance and hence its depth.

Perhaps the illusion of a dry, powdery surface might also be partly due to the subtle undulations on the surface that lend their soft irregularities to the curves of flesh and fabric and thus meld with the represented image. My eyes must reach an approximate focal length where multiple parts of the image are in focus and parts of it are not. Another possible reason for the perception of a dry fresco surface is the reflection of light from the intonaco, the fresco's plaster surface made with marble dust, along with the absorbed paint made mostly of lime white and medium of glue and limewater.⁵³ In terms of surface materiality, there are no thick marks of paint to arrest the passage of light. While the juxtaposition of colours is important for the creation of luminosity, the smoothed intonaco is a surface with luminance properties of its own; it refracts and reflects light back through the transparent colours absorbed into the surface. The reflections would occur more strongly where the paint is palest, due to the capacity of lime white to reflect light also.

Consequently, I propose that the experience of the surface as powdery is an effect of light refraction and reflection from the intonaco and high value lime-white based pigments of fresco, augmented by the uneven surface. Our perceptions of the surface qualities are also affected substantially by viewing distance, colour interactions and

⁵³ Ibid., 47.

surrounding contrasts, and a differentiated surface of brush-marks that encourages seeing into the pictorial space from where light appears to radiate. The perception of luminosity also depends on the material qualities of the surface, colour contrasts and phenomenological space. At the level of the painted surface, actual light and materials integrate to make the mystery, in this case, the apparently empty space is full of striations of flooding light.

I recall Norman Bryson's essay *The Gaze in the Expanded Field* and his example of Ch'an painting, also of the fifteenth century, and its major concern with *shunyata*, the embodiment of nothingness in the visual field (Fig. 26).⁵⁴ The luminous area of painted light in Fra Angelico's *Annunciation* is a surprising link with the Buddhist principle of *shunyata*, or emptiness full of potential, and with Rothko's voids. The empty space full of vibrant luminosity suggests the presence of the numinous.

On my fourth and final visit to the San Marco Museum, it is overcast and the light of the day is diffused. The artificial lighting seems subdued and I am more aware of the softly radiant quality of the frescoes. Mesmerised by the tiny luminous white flowers in Cell 1, *Noli me Tangere* (Fig. 27), I reflect on the hours I have spent in the doorways of the worn stone cells leaning against the same doors that Fra Angelico had walked through. Taking time with his frescoes, I had seen into distant trees and infinite skies; along cloisters and into rooms and scenes bathed with ethereal light, luminosity integrated from the artist's observation of natural phenomena, his imagined or visionary experience and the illumination of ambient lighting. I often found myself gazing entranced into the expressions of figures and the spaces between them. I saw the uneven creamy intonaco surfaces and how the paint is in, not on it, except for the azurite painted *a secco*. Fra Angelico found a visual language to inspire awe and contemplation through his concern for the inner life, his understanding of human nature and being informed by natural phenomena.

⁵⁴ Norman Bryson, "The Gaze in the Expanded Field," in *Vision and Visuality*, ed. Hal Foster (Seattle: Bay Press, 1988), 101.

The late series paintings of Mark Rothko

I visited the major exhibition *ROTHKO: The Late Series* at Tate Modern on two consecutive days early in December 2008. The lighting of the main gallery was terrible. Light bounced off and bleached the darks from the upper left sides of the paintings when viewed in the usual frontal viewing position. This prompted my moving several metres left of the works in order to avoid the glare. I made the following observations while viewing the works.

A large rectangle with curved inner walls occupies most of a maroon field in *Red on Maroon Mural Section 2* (Fig. 28). This painting hangs approximately one metre from the floor of this hall-sized gallery. The first thing I notice is how enormous the work is. Secondly, the painting conveys a sense of constraint despite its scale, and thirdly, the colours appear to shift markedly as I move. Inspecting the surface of this painting at close range, the monumental scale is overwhelming; more than two metres of the painting extends way above my head, and it seems heavy, with blood-stained darkness. This is a sublime experience. Six metres away and the painting still looms very large; my visual field is consumed and I want to move away. At around twelve metres, I experience a powerful sense of space activated by being able to see the whole work. The painting, at different points in time and space delivers different experiences. I think of Rothko and the pulley system in his studio, raising and lowering the painting to the right place to see the work. Perhaps he sat where I am in relation to the canvas, quizzically evaluating the interplay of colour and light.

A large curved, roughly rectangular and hollow figure floats in the centre of a maroon field. My first impression is that this floating shape is an ephemeral portal, a way into, or out from, an indefinite space. This central area has no references; there are no solid forms to grasp. Many multidirectional marks and layers coalesce to form a dense atmosphere. On the outer part beyond the portal, the maroon is a denser matte that stabilises the composition. The seeming solidity and its holding most of the large figure/space, gives a sense of its closeness to the picture plane. Entry through it is suggested into another space, where the air is thick and heavy and warm.

The shape of the figure is suggestive of the stage, the festoon of curtains that hang at each side and link across the top. I recall the draped red fabric holding the scene in Caravaggio's *Death of a Virgin* by the depth of red and the similar employment of contrast of saturation (Fig. 29). The figure is a lighter tone with luminous areas of redness distinguishing its edges and slightly shiny surface compared to the ground of the painting. The figure seems like a living thing. A heart-sized area of redness glows in the centre of its lower bar. The ruby redness flows in thinner 'arteries' laterally along the base of the figure and subtly up each side, its luminosity operating through contrast of saturation. Heat rises from this central space as a subtle triangular infusion of redness, only vaguely visible in reproduced images.

The edges of the lower bar of the figure tend to assimilate into the ground, especially as one beholds the work from ten to twelve metres away. The effect is one of the figure sinking back, and then as I attend to it more closely, it floats forward. It is made of different stuff – areas of thicker paint, small areas of salt-like residue and layers of red with an oilier medium that reflects the light. Midway up the curved sides of the figure the tonal contrast increases and the bars tend to incline towards me. The lower part of the figure projects beyond the picture plane, its materiality suggestive of a visceral easing way to a softer lightness in the upper half. Floating, glowing, pulsing, shifting, rising, sinking...the painting is a metaphor for actions of the body. There is a definite upward lift, a lightening, as if flesh gives way to spirit, as if spirit is leaving the earthy, bloody, pulsing body. This must be the transcendence that Rothko aimed for.

The painting hung to the left of this one *Untitled* of 1959, has the same composition but very different sense of space and ambience (Fig. 30). Something appears to be in process for the figure, the hollow shape that provides a space, a portal of maroon on a maroon ground. It is less active, less warm; there is a sense of the moment of transition either as becoming or disappearing. This is perhaps what the previous painting will develop into, or, could be a precedent for. The lower band of the floating rectangle has the look of congealed blood. It is more like the glowing coals of a burnt tree with its luminous red extending along each edge with intermittent darker gaps. The shifts in tone between figure and ground are subtle in places creating an equiluminance such that the figure threatens to disappear. Despite the density of materiality in terms of marks and layers of colour, there is a sense of transparency as if matter is becoming spacious. I

am reminded of the space-matter of quantum physics where matter is spacious and space contains matter.

While the seeming transparency of the figure evokes the sense of being spent, its luminous edges lift it from the ground from which it also seems to be made, operating strongly through a contrast of saturation. The edges of this shape travel and interrupt vibrantly like broken skin. The ground of varied shades of maroon gives a sense of waves of warmth passing through it. This is the work of a painter who has mastered his visual language; the presence of Rothko's intention is strongly embodied in his work.

The upper band has an upper edge of intermittent red, creating a tension between it and the upper edge of the canvas only a few centimetres away. The band seems to want to push beyond the confines of the canvas mostly darker than the ground. The left panel is edged with red with pools of red near the centre and lower third. It is perplexing, as I cannot place the figure spatially, one moment it is figure, the next it is ground, depending on where I am in relation to it. It breaks with conventions of pictorial space, and thus suggests, quite strongly, the certainty of being and not being.

This deep red, thick walled hollow rectangle on a mauve-on-maroon ground is a mass of mostly large vertical brush-marks in Rothko's *Red on Maroon Mural, Section 4* (Fig. 31). The red shape forms a kind of portal with a soft grey fog appearing to move through. This painting operates through tonal and simultaneous contrast with the ambiguous colour – a bluish, grey-mauve that is luminous against the maroon. The figure is painted with an oily medium, which contrasts materially with the thinly painted matte blue-grey on the fuzzy surface of unprimed canvas. Like a luminous cloud it seems to rise and fades out in the lower quarter of the painting; its ephemerality heightens the materiality and weight of the figure.

The figure in maroon tends to merge into the maroon ground in its lower region. It seems to convey the sense of a threshold of suffering. The thick brush-marks of the figure are applied vigorously in mostly vertical and lateral strokes with varying amounts of medium which creates an active surface contrasting with the cloudy atmospheric effects of the lighter colour. The heavy red strokes suggest bodily struggle, or struggle

of spirit embodied. The vertical format is like a small room, a hallway and the inner shape exactly that of a doorway. There is a sense of passage through, but the way is not easy with its seemingly unstable edges and the trail of paint evocative of blood.

Rothko's five dark works from the sixties are known as the *Black-Form paintings*. The curiously titled *No. 6 (?)* features one large, vertical matte, very dark black rectangle, floating upward inside another dark rectangle formed by the edge of the canvas (Fig. 32). This work towers above me; it confounds, confronts and overwhelms. It is a commanding work and I stay with its starkness, the monumental nothingness of it. I notice my awe shifting to curiosity and begin to explore. Where the central figures of the other *Black-Form paintings* are like closed doors, this space is open. I am captivated by the subtle difference in figure and ground such that the figure appears and disappears, and with the merging one enters the deep space of the painting. This is like the dark void of Francisco de Zurbarán's (1598-1664) St Francis paintings; it has the same warmth, spaciousness and ease of entry with the spatial illusion of the figure just behind the picture plane (Fig. 33).

The lighting of the *Black-Form* paintings is better in this room. Two spotlights are positioned around five metres up, toward the outer corners of the paintings. A viewing distance of four to five metres seems to allow entry into painting *No. 6 (?)*. Light is absorbed into its darkness rather than being reflected as it is in each of the other dark works in this room. Far less oily medium is employed in the figure here, although an increase in sheen is noted at the lateral edges. The figure has subtle shifts in its surface with the occasional lump of pigment and one dribble that I can see; it is a far more homogenous surface with far less visibility of marks compared to the Seagram studies and Rothko's paintings of the late fifties. The luminosity of the *Black-Form* paintings comes from subtle differences in tone and operates through variation of mediums where a difference between absorption and reflection of light between the figure and ground occurs, making shiny blacks, grey and matte darks, darker. I have a sense that light is on the other side.

I try again to allow a kind of submersion into the encompassing darkness...but there are too many people. I want to be alone with the paintings. Instead, I move around. At close

viewing, the centre is darker, from around six metres away the ground is darker. It is as if Rothko paints the timelessness of the mirror and the void. At a certain place of viewing, between four and six metres back, both collapse to flatness, denying everything, like the solid wall of the wardrobe in *The Lion the Witch and the Wardrobe*. It is thoughtfully crafted magic. The hand-drawn edges of the figure glow with the suggestion of red. As I move, a garnet-like spark appears to flicker at a lower left intersection of the figure/ground, like a sign of life. The intermittently, faintly glowing edge belongs at one place to the figure, at another to the surrounding ground. The figure looks as if it might have just burned and fallen through. It is the edge of the emerging figure too, as if cut out with a knife. The switch between space of void, to space of something solid, and vice versa, is sudden and unnerving. Things are not as they seem; the rug is no longer under one's feet, so to speak, rather it is the abyss.

In the *Black-Form* paintings, Rothko employed a broad range of irregular mark-making and range of paint qualities as noted by Oliver Wick: “[a] play of glossy and matte, opaque and translucent surface treatments gradually emerges after some time spent gazing at the seemingly impenetrable blackness, in which deeper layers, nuances and an interplay of reflections become apparent.”⁵⁵ Through his intricate technique, Rothko reveals the conundrum of mystery as itself; mystery is here but you cannot know it, because it is unknowable. The seemingly vast, empty fullness of the unknowable is both void and opaque in his paintings. What is it that I would have to ask, to receive such replies as these paintings give? Answers come immediately: What will happen when I die? What will happen if I surrender to what is? Rothko's *Black-Form* paintings evoke the certainty of not knowing, a persistent and discomfiting poetics of space.

The poetics of space may include the experience of invitation into an architectonic composition with the beholder's sense of being both welcomed and also required to attend, similar to that required by the iconic presence. Other poetic experiences might include the sensation of advancing, encompassing warmth of atmospheric colour, the suggestions of a visceral materiality, and the unsettling ambiguity of the spatial flip from the definite touch of the material surface into the non-touchable void. Through visual entry into the abyss, there is a sense of timeless being. Awareness is drawn into

⁵⁵ Wick, 2007, 23.

the expansive illusional depths of the painting, and with the smallest bodily movement, collapses back into the thin slice of the picture, and the present moment.

Discussion of observations

Through the preceding observations of Fra Angelico's and Rothko's paintings, it can be seen that luminosity and materiality of surface contribute to spatial phenomena in ways that may evoke a poetics of space for the viewer. Rothko's careful use of colour mixes and mediums, to create luminous surfaces, interact with the gallery lighting and cause spatial phenomena that alter with the viewer's movement. What appears to occur around the edges of Rothko's juxtaposed edges is a flipping of pictorial space. The edges of the figures operate as axes around which the phenomena of rapid spatial shifts occur, from flatness to depth of both figure and ground. This experience depends entirely on where I am, and where I look at the painting.

The strong spatial dynamic of Rothko's *Black-Form* and *Seagram* paintings is balanced by the weightiness of monumental scale, heavy colours and the colour contrast of saturation skilfully employed, also carrying the weight of tradition of Rembrandt and Caravaggio. Contrast of saturation functions in Rothko's dark works where small areas of brighter colours assume the luminosity of jewels, and where large painted areas fluctuate in tone and saturation of hue, becoming atmospheric and softly luminous. Rothko's *Seagram* fields are reminiscent of Fra Angelico's enormous Chapter Room Crucifixion fresco with its deteriorating azurite sky over red earth ground (Fig. 23). I propose that for the *Seagram* paintings, Rothko may have been more informed by Fra Angelico's large crucifixion fresco than by the cell frescoes, as has been suggested.⁵⁶ From a viewing distance of ten to twelve metres, luminous effects from the simultaneous contrast of dark reds and blues occur in both artists' paintings, suggesting the illusion of infinite space within the picture.

Rothko's approach to manipulating surface and colour derived from his ideas about the spatial effect he called "breathingness" or "plasticity" of two kinds – tactile and visual (also referred to as illusory).⁵⁷ He noted that plasticity is achieved by a sense of moving

⁵⁶ Ashton, "Rothko's Frame of Mind," 21.

⁵⁷ Wick, 2007, 16.

into the pictorial space, and also outward from that space, into the beholder's space.⁵⁸ Historian Sheldon Nodelman remarks on Rothko's preference for the tactile means of achieving plasticity, although he used both tactile and illusory forms.⁵⁹ While neither Rothko nor Nodelman explain exactly what they mean, I suspect that Rothko's tactile means involved building up a material surface to interact with light in specific ways. The illusory relates to the spatial effects of relative size of shapes, and the temperature and tone of colours. While Rothko's "breathingness" came from his interactions of layers of thin films of colour, the sense of the breath in Fra Angelico's Cell 3 *Annunciation* came from the combination of colour employed as light and the compositional repetition of arches (Fig. 25).

The luminosities created by Fra Angelico and Rothko depends on the techniques of juxtaposing and layering of colour glazes. These largely operate through the perceptual effects of simultaneous contrast and contrast of saturation. Both artists varied the opacity of their paint to permit the interactions of light. Rothko's paint was attenuated by mixtures of mediums that allowed light entry and refraction, while accelerating the deterioration of his surfaces.⁶⁰ Fra Angelico juxtaposed and layered washes of colours, of varied opacities, in ingenious ways not previously seen in fresco painting.⁶¹ Their paintings were constructed three-dimensionally, in the sense that layers contribute substantially to their luminous qualities. Long before visiting San Marco, Rothko had experimented with the application of translucent paint on white plaster grounds that left brush marks on the surface.⁶² The mark making evident in the work of both artists contributes to being able to see into the pictorial space at a viewing distance which privileges a vision of the whole and offers the accompanying atmospheric effects.

Both Rothko's and Fra Angelico's methods create suggestions of uncertain, luminous pictorial depth within structured compositions, directly or indirectly referencing

⁵⁸ Mark Rothko, Edited and with Introduction by Christopher Rothko, *The Artist's Reality. Philosophies of Art*. (New Haven and London: Yale University Press, 2004), 47.

⁵⁹ Sheldon Nodelman, "Reading Rothko," *Art in America* 93, no. 9 (2005): 45-51.

⁶⁰ Cranmer, "Painting Materials and Techniques of Mark Rothko: Consequences of an Unorthodox Approach," 192.

⁶¹ Hood, *Fra Angelico: San Marco, Florence*, 46.

⁶² Oliver Wick, "Do They Negate Each Other, Modern and Classical? Mark Rothko, Italy and the Yearning for Tradition," in *Rothko* (Milan: Skira, 2007), 12.

architecture. While Wick describes Rothko's mural paintings as "architectonic", Fra Angelico employed perspective in a functional sense so that his repetition of arches and severe orthogonals created illusions of space, without dictating the single ideal place of viewing.⁶³ This enables the beholder to be affected by the painting from any number of locations. The point to be made here is that Fra Angelico especially constructed compositions with strong orthogonals for the articulation of pictorial spaces that implicate the passage of the beholder. Luminosity and composition operate interdependently; the light needs the architecture or structure to hold it, and the structure needs the effects of pictorial light for the articulation of its pictorial space.

The beholder's sustained viewing is highly significant for the perception of the spatial effects of fresco painting. With prolonged viewing, Fra Angelico's frescoes appear to project in front of the surface of the wall due to the interactions of light with the *intonaco* surface and high value colours. This of course is also dependant on the location and time of beholding.

The beholder's engagement is influenced by the scale and permanent nature of the paintings. The personal scale, fresco technique and location-specific design of the frescoes suggests the intimacy and continuity of the fresco within the room space. It is as if the aura of the narrative, or at least the devotion with which it is painted, is being held and reverberated within the room. Alternatively, Rothko's room-sized paintings seem to implicate the beholder's presence within their boundaries.

The analysis of paintings made by Mark Rothko and Fra Angelico support my contention that luminosity and materiality of surface in paintings are both highly significant in creating spatial phenomena, which in turn may evoke a poetic experience for the beholder. Both painters employed high or low value palettes to create luminosity by colour interactions and assimilations, with mediums or surfaces with reflective and refractive properties, and varied brush-marks that provide the right conditions for seeing into pictorial spaces.

⁶³ Achim Borchardt-Hume, "Shadows of Light: Mark Rothko's Late Series," in *Rothko* (London: Tate Publishing, 2008), 20.

What has become clear through the examination of these paintings is firstly, that the spatial phenomena of luminosity and materiality depend on the beholder's interactions and place of beholding. Perception of the materiality of the surface occurs through the visual-touch of small areas at close range, and at greater distance is viewed as colour, employed as light at its most luminous and atmospheric. Secondly, the perception of a painting's luminosity depends on colour juxtapositions and mediums, and is interdependent with its surface materiality determined by how and with what it is made. Thirdly, compositional strategies are vital for the carrying of colour as light, for its juxtapositions and interactions, as well as for the provision of spatial cues. The role of pictorial structures employed in the making of paintings with a range of luminous qualities will be further investigated in Chapter Three.



Fig. 17 Fra Angelico, *The Coronation*, c. 1441, fresco, 171 x 151 cm, Cell 9 San Marco Museum, Florence.



Fig. 18 Mark Rothko, *Untitled*, 1950, oil on canvas, 188.6 x 101 cm Tate Modern, London.



Fig. 19 The oblique photograph shows the gloss of the figure and the matt of the ground of Rothko's *Red on Maroon Mural Section 2*, 1959.



Fig: 20 The Garden of St. Anthony and cloister, San Marco Museum, Florence.

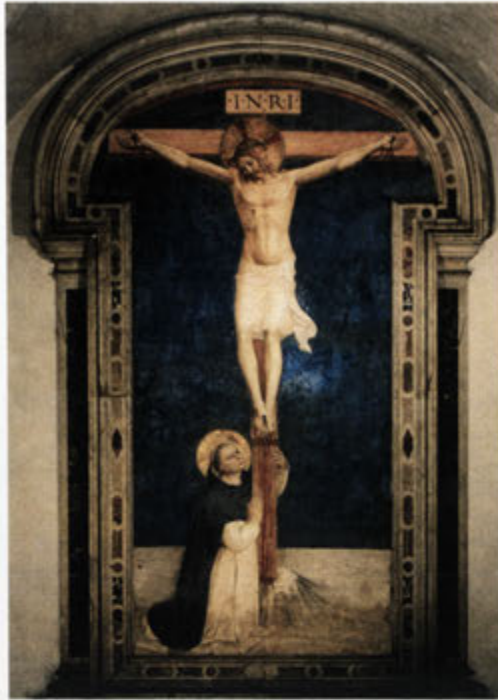


Fig. 21 Fra Angelico, *St. Dominic with the Crucifix*, fresco, c.1440, 340 x 206cm
San Marco Museum, Florence.

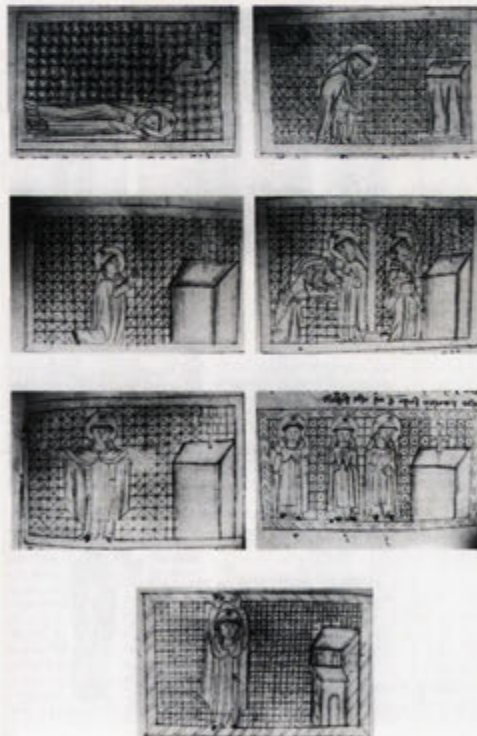


Fig. 22 *De Modo Orandi* The First Seven Modes of Prayer of St Dominic,
illustrations for *Los nueve modos de orar*, 14th Century
Monasterio de Santo Domingo el Real, Madrid.



Fig. 23 Fra Angelico, *The Crucifixion*, (in the chapter room), c.1441-42, fresco, 550 x 950 cm, San Marco Museum, Florence.



Fig. 24 Fra Angelico, *The Annunciation*, 1450, fresco, 230 x 297cm, North Corridor, San Marco Museum, Florence.



Fig. 25 Fra Angelico, *The Annunciation*, c. 1441, fresco, 176 x 148 cm, Cell 3, San Marco Museum, Florence.



Fig. 26 Ch'an painting example by Sesshu Toyo, 15th C, Muromachi Period painted on paper, hanging scroll painting, 63.5 x 31.7 cm.



Fig. 27 Fra Angelico, *Noli me Tangere*, c.1450 fresco, 166 x 125 cm, Cell 1 San Marco Museum, Florence.



Fig. 28 Mark Rothko, *Red on Maroon Mural Section 2*, 1959, mixed media on canvas, 266.7 x 457.2 cm, Tate.



Fig. 29 Michelangelo Merisi da Caravaggio, *Death of the Virgin*
1601-1605-6, 369 x 245 cm, Musee du Louvre.



Fig. 30 Mark Rothko, *Untitled*, 1959, mixed media on canvas, 266.1 x 453.8, Kawamura Memorial Museum of Art, Sakura.



Fig. 31 Mark Rothko, *Red on Maroon Mural, Section 4*, 1959, Mixed media on canvas, 266.7 x 238.8 cm, Tate.

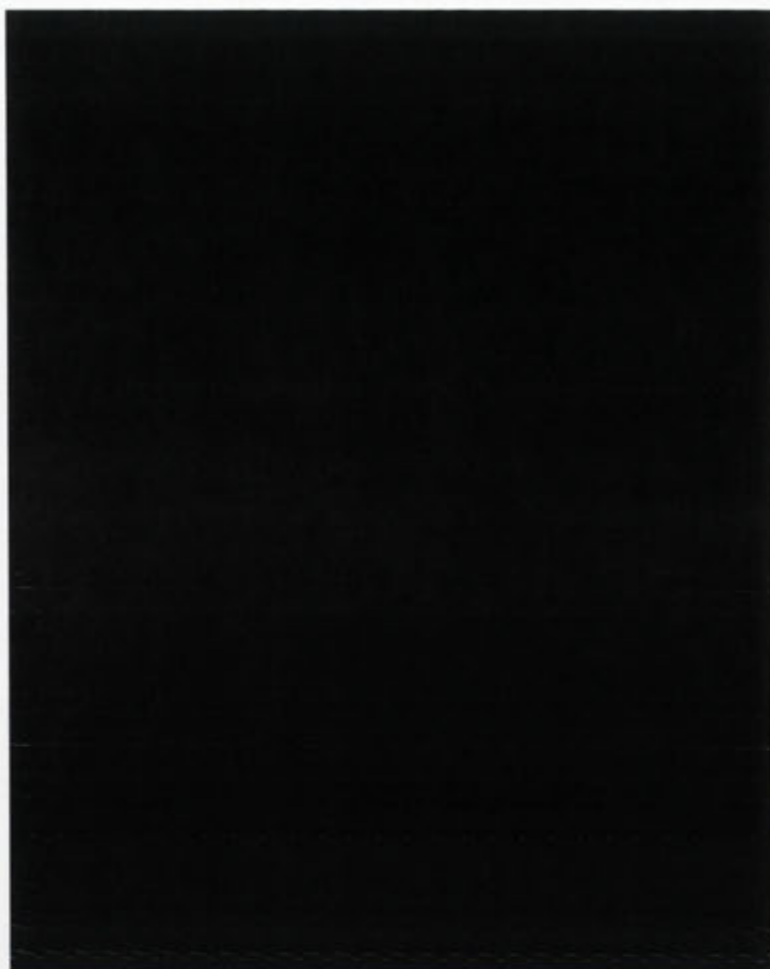


Fig. 32 Mark Rothko, *No. 6 (?)*, 1964, Mixed media on canvas, 236.2 x 193 cm
National Gallery of Art, Washington.



Fig. 33 Francisco de Zurbarán, *St Francis in Meditation*, 1639
oil on linen, 162 x 1137 cm
The National Gallery, London.

CHAPTER THREE: Investigating the pictorial structures that contribute to the perception of luminosity in paintings

In the previous chapter, my close examination of paintings found that the materiality of the surfaces of colour employed by Fra Angelico and Rothko to create luminosity also generate illusions of space. In his *Annunciation* frescoes Fra Angelico's representation of architecture articulates the passage of light and creates pictorial space. Rothko references architecture through his portal-like forms, which allow for the dynamic operation of colour and material contrasts. The corners, parallel lines and decreasing size of shape in Rothko's employment of the centric rectangle act as cues suggesting the planes of linear perspective. These findings suggested another direction in which to investigate how luminosity occurs in paintings.

Colour, arranged by the painter, results in spatial and luminous illusions. While the luminosity in painting suggests pictorial space because of our understanding that light moves away from its source, particular pictorial structures and methods play a substantial role in the creation of illusions of light and space. What are the methods and structures used to deliver both luminosity and pictorial space, and potentially the poetics of space?

From the Renaissance up until Modernism, the illusion of three-dimensional space in Western painting was constructed using the methods of linear perspective, but in this chapter I aim to investigate other pictorial structures. To advance the discussion about how coloured pigments and mediums can be organised to create luminosity and suggest spatial effects, I consider works from five artists whose work has intrigued me for their different approaches to the use of colour and composition: J.M.W. Turner (1775-1851), Giorgio Morandi (1890-1964), Agnes Martin (1912-2004), Howard Taylor (1918-2001) and Mary Heilmann (1940-).

J.M.W. Turner

Turner was a Romantic painter whose main reference point was nature. Historian Barry Venning notes that, like William Blake and Caspar David Friedrich, he "exalted

imagination, experience, originality and expressive power.”¹ Canadian curator Katharine Lochnan notes that his paintings embody *ut pictura poesis*, influenced by the poetry of Shelley.² Turner composed his paintings initially using thinly blended colours, and constructed further layers, always juxtaposing different colours, to make luminous tracts with a surprising range of materiality, brushed, scumbled, splattered, buttery, lumpy and scraped. His compositions often place the beholder level or at a high vantage point with a commanding view deep into the illusion of atmospheric space. I examined the works of Turner at Tate Britain, London early in December 2008.

Turner’s greatest compositional tool for constructing both luminosity and pictorial space was the layering and juxtaposition of colours using a range of opacities and marks. His luminous atmospheric effects were informed by Claude Lorrain’s skies, the observation of natural phenomena and the colour theory of Goethe.³ Simon Schama notes that Turner, informed by Goethe, “believed that when seen through air or water (the only way we receive them), those colours [of nature] bled and blurred along their edges to form intermediate zones, like visual grace notes.”⁴ In music, a grace note is described as a small note before a regular note that ornaments the melody and can be omitted or added to a performance without fundamentally changing it.⁵ However, where grace notes are dispensable, Turner’s “intermediate zones” in clouds, mist, rain and sunshine are not. At these zones luminosity is created through colour interactions, without which the painting would be fundamentally different.

The strong material presence of Turner’s surfaces add further dimension to the luminosity created by colour, as shown in the following examples. Turner’s *Lake Lucerne: the Bay of Uri from above Brunnen* (Fig. 34) hangs above *Sunset from the top of the Rigi* (Fig. 35). The paintings are the same size, and both are glazed and framed with plain gilt. They reflect a bar of light from the covered fluorescent lights above. Disregarding this distraction, the heavy materiality of the painted surface grounds the

¹ Barry Venning, *Turner* (London: Phaidon Press, 2003), 8.

² Katherine Lochnan, "Preface," in *Turner Whistler Monet*, ed. Katherine Lochnan (London: Tate Publishing, 2004), 13.

³ Birren, *Color Perception in Art*, 9.

⁴ Simon Schama, *Power of Art* (London: BBC Books, 2006), 269.

⁵ W.L. Windsor, Desain, P., Honing, H., Aarts, R., Heijink, H. and Timmers, R., "On Time: The Influence of Tempo, Structure and Style on the Timing of Grace Notes in Skilled Musical Performance," in *Rhythm Perception and Production*, ed. P. Desain & L. Windsor (Lisse, NL: Swets & Zeitlinger, 2000), 217.

sense of dissolution of the landscape by Turner's dynamic atmospheric effects. I see that very smooth faintly modulated areas sink back behind thick overlying vigorous marks to create the illusion of pictorial space.

Lake Lucerne and *the Rigi* are relatively small landscape paintings of large vistas, evocative of the Sublime. By following the horizontal juxtapositions of paint I find my vision extending further into pictorial space. The blurring of paint seems to cause an equivalent blurring of my vision, until I discover a small cabin emerging from the mist in *Lake Lucerne*, perched on the side of a mountain. At the place of middle distance viewing, the cabin appears to be overwhelmed by boundless space and light suggesting the insignificance of the human presence.

The ambience of the light emanating from each work is different. Where *the Rigi* has a sense of spring warmth with its rose-streaked sky, *Lake Lucerne* is cold. *Lake Lucerne* initially appears as a collection of light-coloured marks on a brilliant white ground. After several seconds of looking from around four metres away, I am able to read a vaporous sunrise with cloudy streaks of lemon, white and mauve. At close quarters, the view falls into bands of mauve, white, cream, mauve, pink, lemon, cream, mauve, white, lemon, white, mauve. Turner's sandwiching of greys and pure tints creates luminosity through simultaneous contrast.

I experience the sensation that I can almost touch the clouds of *Lake Lucerne*; the painterly construction of its nearest layers suggests the action of reaching out. Turner has located himself, and the beholder, in the clouds; he must have had a high vantage point for the making of this painting, as he confers his elevated view of the valley on the beholder. Clearly the spatial phenomena of Turner's luminous materiality are two-fold: thick edged and textured marks extend into my space, break pictorial space and bring my vision in to touch, while the grey, softened marks take me in further, implicating the distant view.

My sensation of visual touching the painted surface and then passing through it, into the immensity of atmospheric space, is a poetic experience. I recall being on Mt Pilatus above Lake Lucerne looking into the nothingness of morning fog and returning from reverie to the fence, the snow and a cold nose. Becoming engrossed in luminous effects and returning to the surface's ridges and valleys of paint is like that.

The text on the Tate's wall informs me that Turner had not been to *the Rigi*, a high platform affording celebrated views of Lake Lucerne and the Alps; rather he used topographical prints after other artists to make this painting.⁶ Consequently, the symphony of formless, coloured marks seem like the representation of an idea of a place; the painting appears quite non-objective at close viewing. Around two to three metres away, there is an illusion of shallow space dominated by the texture of thickly applied, multi-directional marks of light-coloured paint over a smoothly blended mauve-grey ground. Even at close viewing there is the illusion of spatial depth, although it appears to be compressed into a few centimetres behind the picture plane. As I move back and forth, my experience shifts between the illusional and the material, from seeing into and seeing onto the painting's surface.

A translucent rose glow over mauve dominates the central area of the painting with darker horizontal strokes of rose, and shorter vertical strokes in the central region. In the lower part of the painting is an area of yellow-green with thick residue of paint indicative of foliage, with nearby pale pink marks and chaotic dabs of grey on mauve. I see that yellow-green beside rose, over mauve and swipes of white, illuminate the sky and strokes of thick cream add even further dimension. After moving back five to six meters, I experience a sense of great spatial depth in *the Rigi*. The thick active marks assimilate into a lyrical, rose light-filled landscape. Opaque clouds appear to advance from the left dissolving the density of land and filling the valley, and I am implicated in the effects of atmospheric action.

The materiality of Turner's painted surfaces plays a substantial role in the beholder's experience of spatial phenomena in several ways. At close range, Turner's marks and textures affect the real space of the beholder, impacting on a physical level, they engage the beholder's sense of touch and suggest relative physical presences in space. Paint thickness asserts the closer presence of sunlit clouds, relative to the smooth, distance-inducing effect of *sfumato*.

Ambient lighting highlights Turner's superficial marks and produces shadows, breaking with pictorial space through creating an actual spatial depth beyond the picture plane.

⁶ "Wall Text for J.M.W. Turner's Painting 'Sunset from the Top of the Rigi,'" (London: Tate Britain, viewed 2008).

The generation of luminosity through careful juxtapositions of colour projects the illusion of light forward of the picture plane and back into it, the illusion of pictorial depth created by our knowledge of light's movement in all directions. High value tints sufficiently dissolve and obscure forms so that the landscape is partially visible behind, which also implies depth.

Turner's marks coalesce to fill the visual mind with illusions of natural phenomena, such as light filled fog, and rain with wind. The sweeping sensuality of the paint suggests the feeling of hair flying in the breeze, the sharp inhalation with the touch of an icy raindrop, or walking in the fog, feeling the faint warmth of the squint-inducing sun. Did Turner know of the poetic spatial effects of his paintings? It seems likely, as historian Barry Venning notes that associations and metaphors were very much ingrained in his thinking.⁷ These examples show that Turner's varied materiality, his building up of layers and juxtaposition of pure tints and greys are essential strategies for his method of creating and conveying luminosity and illusions of space.

Giorgio Morandi

Working between and after the world wars, Italian painter Giorgio Morandi was neither Romantic nor Symbolist, rather, Maria Cristina Bandera notes he was influenced by the French painters, especially Cézanne.⁸ Gianfranco Marianello, Director of the Museum of Modern Art in Bologna, suggests that an analysis of Morandi's still-life paintings should consider his approach as similar to that of Martin Heidegger who was driven by his need to construct a language for that which is most near to us.⁹ It is as if Morandi painted Heidegger's *presencing*, where "every presence arrives with absences" illuminated in an unstable universe.¹⁰

I visited the New York Metropolitan Museum's exhibition *Giorgio Morandi 1890-1964* three times during my visit in December 2008. The paintings, beneath perspex, were hung either on a blue-grey wall or a surface covered in Belgian linen. Diffused lighting

⁷ Venning, *Turner*, 284.

⁸ Maria Cristina Bandera, "Giorgio Morandi Today," in *Morandi 1890-1964*, ed. Maria Cristina Bandera and Renato Miracco (Milan: Skira, 2008), 26.

⁹ Gianfranco Marianello, "Foreword," in *Morandi 1890-1964*, ed. Maria Cristina Bandera and Renato Miracco (Milan: Skira, 2008), 18.

¹⁰ Jeff Collins and Howard Selina, *Introducing Heidegger* (Cambridge: Icon Books, 1999), 122.

from around five metres above the paintings simulated the subtlety of early morning light. Brighter than they appear in reproductions, Morandi's still life paintings employ the shapes of objects and the spaces between them to create subtle luminosities through colour purity contrasts (or simultaneous contrast), and contrasts of extension with minimal shadows. Pale blue, straw yellow, warm pink and muted green forms become gently luminous in the presence of the complex range of greys, browns and creams. The imperfections of these softly coloured forms suggest a relation to the hand-made, and organic objects such as bones and plants.

Both palette and composition of centrally arranged objects on a table or shelf, present the shallow spaces of the mid-twentieth century domestic interior and the quiet of usually unnoticed utilitarian things. The iconic structure of Morandi's compositions suggests an intimacy of beholding for the solo viewer. The initial ordinariness observed, however, becomes strange, even extraordinary with sustained viewing.

In Morandi's *Still Life*, 1960, a vase, canister and bottle are arranged in front of each other and seem to merge and reform themselves (Fig. 36). A mandorla shape of salmon pink is a space between objects and yet appears to belong to the canister placed behind. A tiny touch of the same pink sits above the vase on the left side, seeming to belong to and also lift away from it, like an accent. In the surround of greys and browns, its luminosity is like a flash of lingerie between suit-coats.

The warmth of the pink shape appears to swell outward at its curved sides. It advances, contradicting the pictorial cues about its position behind other objects. The varied treatment of the surface also generates contradiction. While Morandi conveys that the vase is made of smooth, inert ceramic, its painted surface is rugged, textured with brush-marks; its edges are blurred and suggest mobility. Is the object coming or going? Is it painted on the picture plane or in pictorial space? Both illusion of objectness and the assertion of the painted thing is there. The variety of marks merge and dissolve and enable seeing into pictorial space from two to three metres away, but at close range provide an actively marked material surface suggesting that matter and space are made of the same stuff.

Morandi's paintings of the 1950s with the pink canister are striking. The blush-coloured canister alongside restrained ochre and grey objects, also feature in Morandi's

watercolours, for example *Natura Morte* of 1960 (Fig. 37). The pink provides a provocative tension between its suggestion of fleshy aliveness, and the palette of stone-bone-and-dust colours. Morandi allowed the white paper to form a luminous ground in his spare watercolours, which appear to be informed by Chinese ink and brush techniques. This is very likely, as he had books on the paintings of Ancient China, and, as Bandera notes, Morandi's interest in the colours of precious Chinese ceramics led to his lighter palette and simplified compositions with larger areas of space during the 1950s.¹¹

Edges of forms appear to fade in the work *Natura Morte*. Painted areas of colour seem to have independent energies, not contained by the drawn shapes of their forms, but contracting or extending beyond these boundaries. Space floods form and form moves into space. Light reflects from the white paper ground through thin washes applied with a limited number of highly considered marks. The gestural and translucent materiality of watercolour on paper conveys a sense of immediacy and lightness quite different from the oil paintings. They might have just been painted and might just as easily become unpainted, such is my sense of their brevity of existence and ephemerality. Morandi's watercolours are paintings of the essence of things, and in this way, are abstractions.

In *Still Life* an eggcup lies on its side nudging against a robust vase. It is made of shades of coloured greys using a range of mid-tones to white (Fig. 38). The subtle luminosity of this intense little painting is provided by small areas of white in and outside the eggcup and on the vase's neck, body and base near where shadows mark its resting place on a surface. Bandera describes the illusion of luminosity thus: "silvery light strikes and slithers over the forms".¹² While modelled by this painting of light, the figures seem shaky at their boundaries as if they have just materialised from, or may be subsumed by, their surroundings.

Brush strokes follow the forms inside and outside their boundaries in *Still Life*, as if the air has been disrupted just beyond the figures (Fig. 38). Through mark-making, their forms are often echoed in the surrounding painted space. Vertical marks alongside the

¹¹ Bandera, "Giorgio Morandi Today," 42.

¹² Maria Cristina Bandera, "1940-1951," in *Morandi 1890-1964*, ed. Maria Cristina Bandera and Renato Miracco (Milan: Skira, 2008), 220.

neck of the vase give a sense of its elongation, almost of growth. Often Morandi's strokes are horizontal and surprisingly long with striations left by the coarse brush marking the space around the forms. The ground is painted with active marks of thicker, oilier paint that suggests greater significance, however, Morandi balances the solid space by outlining the edges of his figures in grey.

In variations between the still life paintings, Morandi's inquiring approach is evident. While his scale and format are consistent, he considers the effects of ordering objects in relation to each other, the spaces between, the lighting, the kinds of marks, and subtle variations in colour of objects and surrounding areas. Painted vases and boxes appear to shift, lean, tremble or almost jostle to occupy the space in which they are painted. Sometimes Morandi's box or vase edges overlap in both directions at once, or abut and seem to merge. These perplexing happenings have the effect of suggesting that time has accumulated in the painting from different times of observation. The occasions and duration of times of seeing by the painter, suggest sustained and repeated beholding.

Morandi paints the poetics of space as an object; he methodically paints space with a brush-load of paint. His paintings embody paradox in terms of this materiality of depicted space, the ambiguities in form and location of apparently stable objects and his repeated and intense investigations of the usually overlooked.

Morandi uses and challenges our perceptual cues for reading pictorial space. The small scale of Morandi's still life paintings suggests a close beholding. However, seeing into the shallow, stage-like pictorial spaces of the paintings at close range is diverted by the tactility of one purposefully painted mark after another. It is as if Morandi builds space and forms with marks, where each mark is a measure of time. He asserts the picture plane with these marks, however, models the forms sufficiently for the perception of both surface and pictorial space.

I think Morandi meant us to see onto *and* into his paintings, to see the materialisation of light and space on, and around forms. That Morandi makes Wollheim's "two-foldness" possible, or almost possible, is a remarkable feat, as easily overlooked as his utilitarian source material.¹³ The poetry in Morandi's still-life paintings is in the easy, if unusual, co-habitation of the familiar and the unstable, the surface and the illusion of space,

¹³ Wollheim, "What the Spectator Sees," 105.

space and matter, between what we experience in the world, what we know might happen at an infinitesimal level and what appears to happen in the world of Morandi's paintings. The neck of a vase twists, a box jiggles and his decisive brushstrokes reassuringly co-exist.

Agnes Martin

Canadian-born Agnes Martin was a geometric abstract painter and contemporary of the Abstract Expressionists, although her grid-based paintings were received in the 1960s as Minimalist works.¹⁴ I examined her works during three visits to the Museum of Modern Art (New York) in December 2008 and the National Gallery of Australia during 2007 and 2008.

In the Museum of Modern Art, New York, Martin's three large paintings are hung a short distance from the floor, near the works of Sol le Witt, Donald Judd, Robert Ryman and Eva Hesse. Although unevenly lit from approximately two metres back and at a height of around five metres, the spatial effects of *Red Bird* and *The Tree* are vastly different. How do Martin's linear compositions convey luminosity?

The luminosity of Martin's paintings is created by the reflection of light from rough surfaces of gesso and translucent, unevenly drawn lines and painted fields of high value colours. "[T]he underlying tension that pervades and unifies her work in its ideas" McEvelley attributes to the "interplay" between the stability of Martin's large square format, and change, embodied in her sensitively drawn lines.¹⁵ Those fluctuating lines also facilitate the different qualities of light in Martin's paintings, experienced at middle-distance beholding.

The middle-distance place of beholding is described by Rosalind Krauss as *THE /CLOUD/*, also the title of her essay on Agnes Martin. Krauss is informed by Hubert Damisch's rewriting of the history of Renaissance and Baroque painting considering the cloud as a prime signifier.¹⁶ Extending the findings of Linville (1971), Krauss considers the effects of Martin's paintings as cloud-like, bracketed between the flat materiality of

¹⁴ Thomas McEvelley, "Grey Geese Descending: The Art of Agnes Martin," *Artforum International* 25 (1987): 94.

¹⁵ *Ibid.*

¹⁶ Krauss, "The /Cloud/," 159.

close viewing and the opacity of the distant view.¹⁷ The atmospheric effects of her painted surfaces are perceived in the space between close and far viewing, an important factor in considering the luminosity of any painting.

In the process of making *Red Bird*, Martin drew lines in red pencil approximately 3mm apart on a large square canvas unevenly painted with gesso (Fig. 39, note the painting cannot be effectively reproduced, however the method can be seen in Fig. 40). Initially, I thought it was drawn on a faint pink ground until I read Linville's article; the lines actually merge to create a pink field.¹⁸

At close observation, nubs of the rough canvas and lumps of gesso are visible and the pink seems darker toward the peripheries, making a vague lighter circle in the centre of the painting. The horizontally ruled lines stop around 1.5cm from the edge of the canvas, but some continue softly beyond. The equidistant lines are drawn with subtle shifts in intensity, imprecision given by the movement of pencil across a rough ground. At two metres viewing distance, the closeness of the lines reminds me of the aligned fibres of feathers. Between three and four metres viewing distance, passages of lines dissolve and disappear, like the glimpse of a fleeting bird. Four to five metres from the painting, the lines merge into the ground and give way to atmospheric openness.

Peter Schjeldahl cites Martin (1989) telling how she made her first grid painting after she was thinking about "the innocence of trees".¹⁹ *The Tree* consists of a drawn grid of twenty-four horizontally stacked spaces divided vertically into intervals of approximately 1.2cm (Fig. 41). In alternate rows, these are divided again with four vertical lines. Tiny sets of lines transgress their boundaries, travelling into adjacent spaces, sometimes the horizontal lines veer off course, a little up, a little down, and then back on track. The aberrations are touching; Martin integrates the perfection of the ideal grid with her imperfectly drawn lines.

When close to this work, I experience a sense of vertical energy. The grid with its small sets of lines evoke a sense of the cellular structure of a plant while also suggesting light reflecting from the flicking back and forth of leaves like tiny shutters. When further

¹⁷ Ibid.

¹⁸ Linville, "Agnes Martin: An Appreciation."

¹⁹ Peter Schjeldahl, "Abstract Meridian: Agnes Martin," in *Let's See Writings on Art from the New Yorker*, ed. Peter Schjeldahl (London: Thames & Hudson, 2008), 178.

back, around four metres, the vertical lines merge and the horizontal lines dominate creating a sense of the lateral expanse of the canopy. As I stand within its implied reach, it is like being in the presence of an idea of a tree on a fine day.

My immediate awareness of Martin's *Untitled III*, is as a flush of colour that suffuses the surrounding air (Fig. 42). This painting consists of a large pale pink field divided by five horizontal graphite lines, each drawn approximately thirty centimetres apart. Each line starts and finishes around one centimetre from the canvas edge, with subtle variations in tone. The fluidity of paint applied to the horizontal canvas is evidenced by many tiny dried colour pools in the recesses of canvas weave and between the ridges of gesso. The transparency of colour and its uneven application allows the white gesso to refract and reflect light in varying degrees across the canvas.

At four metres viewing distance, the surface irregularities appear to melt away and the high-value pink floats cloud-like from the surface. In effect, a space seems to be created from beneath the picture plane outward as an irradiation of colour, as if the painting has claimed its own auric space. The lines act in a number of ways: as high tension wires, as equally measured divisions, as pressuring lines that move back though the mist, but mostly as hand-drawn lines with their inherent touching variations. My attention shifts between the floating, regular, linear structure and the spacious pink light depending on where I am in relation to the work and my concentration of focus.

Structure and formlessness, materiality and ephemerality co-exist in Martin's work. While Martin painted about the immaterial "sublimity and perfection of reality", as Barbara Haskell notes, she employed a very material support.²⁰ She applied only two coats of gesso so as not to lose the texture of the canvas.²¹ Over this relatively rough ground Martin painted the finest veils of colour and drew lines in graphite or ink at regular intervals. Her approach to visual language is one of combining and balancing the grid-based composition with formless colour and tactile surface.

Central to Martin's work is the dichotomy of the large consistent square format with the subtle variations in pressure of her drawn lines, which McEvelley relates to the

²⁰ Barbara Haskell, "Agnes Martin: The Awareness of Perfection," in *Agnes Martin*, ed. Barbara Haskell (New York: Harry N. Abrams, 1993), 94.

²¹ Holland Cotter, "Agnes Martin," *Art Journal* 57, no. 3 (1998).

meditative purpose of Tantric paintings made of fine grids or lines.²² Linville reflects on the complexity of beholding Martin's paintings, as she creates shifts in tone and hue through variations in linear darkness, clarity, width and touch of line.²³ With different patterns and colours, her paintings "exert themselves differently", some evoking certain qualities of light, some more spacious.²⁴ The lines of Martin's diagrammatic forms drift forward and back from the picture plane; the inherent subtleties vital not only for suggesting pictorial space, but for evoking particular qualities of transience or shifting light. To greater or lesser degrees, Martin's measured linear structures float over, in or beneath expansive colour fields. Paradoxically and poetically, these impositions seem to signify the presence of the immeasurable and ineffable and rather than capture it, evoke its quality and transience.

Mary Heilmann

American painter, Mary Heilmann makes abstract compositions of "seemingly casual gestures and eccentric geometries" informed by life experience and pop culture.²⁵ Heilmann's black and pearlescent pink paintings of the late 1970s are deceptively simple compositions of hard-edged shapes, stark in their contrasts of tone and materiality. Shiny, dull or rough black surfaces abut shapes of thick acrylic pink. At close range the material qualities operate powerfully; at a distance they are dominated by tonal contrast. At a middle place of viewing, both surface qualities and the abrupt shifts in value play a role in sustaining my beholding back and forth between visual touching and seeing.

I examined Heilmann's paintings in the exhibition *Mary Heilmann: To Be Someone* at New Museum, New York (December 2008). The exhibition can be seen on a YouTube video by American art commentator James Kalm.²⁶ All Heilmann's works are hung noticeably lower than the usual hang height (where 150cm vertical height is at the centre of the painting), possibly because they are to be viewed from the box chairs with castors that Heilmann had made (Fig. 43).

²² McEvelley, "Grey Geese Descending: The Art of Agnes Martin," 99.

²³ Linville, "Agnes Martin: An Appreciation," 73.

²⁴ Ibid.

²⁵ Christopher French, "Mary Heilmann," *Flash Art (International Edition)* 41, no. 148 (2008).

²⁶ James Kalm, "Mary Heilmann: To Be Someone at the New Museum," (YouTube <http://www.youtube.com/watch?v=z8y9HERkxMA>, 2008).

The woven chair backs of brightly coloured synthetic bands match Heilmann's paintings and refer light-heartedly to Matisse's (1908) suggestion that a painting could be "something like a good armchair which provides relaxation from physical fatigue."²⁷ Like Heilmann's paintings, however, her chairs are not especially comfortable and are rather like functional extensions of the paintings into the world, making strong spatial links between painting, chair and viewer. Gallery attendants frequently return the chairs to their matching paintings, like wayward children to their parents.

The horizontal rectangular format of *Guitar* is composed of a pink square located within the left side of a black matte ground with a fine pale pink pencil-drawn vertical line on the right (Fig. 44). It belongs to the series of works heralded by the painting *Save the Last Dance for Me* where Terry Myers notes Heilmann's willingness to explore the relationship between sentiment and the sentimental.²⁸ Heilmann's composition and format recall Picasso's guitar made of a box, except this one suggests a woman's guitar.

At close viewing, *Guitar*'s black ground is granular in quality over the coarse grain of canvas. The pink square is pearlescent and thickly painted with wide vertical and horizontal brushstrokes suggesting a woven, silky surface. Although the pearly fairy-floss colour is a reference to superficial sentimentality, my attention quickly shifts away from the kitsch associations to the powerful composition.

While the composition and material juxtapositions of *Guitar*'s evocative surfaces are sophisticated, the light-dark contrast is less so. The hard edges of the eccentric pink square are too sharp and irregular to be engrossed in sentimentality. The pearly square, at five metres viewing distance, projects from its black ground, and I also perceive it as a window of light. At close viewing, however, a spotlight from approximately eight metres above illuminates the vertical pearlescent brush marks, creating a sense of soundwaves passing through material.

The shape of the eccentric square bows outward at its upper and right sides, and the left, and lower sides bow inward slightly. The curves create a sense of distortion of the shape to the right, also as if moved by sound. Tension between materialities and curved lines

²⁷ Henri Matisse, "Henri Matisse (1869-1954) 'Notes of a Painter'," in *Art in Theory 1900-2000 an Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Oxford: Blackwell Publishing, 2003), 73.

²⁸ Myers, *Mary Heilmann Save the Last Dance for Me*, 31.

and straight edges of the canvas set up a dynamic where figure becomes ground and ground becomes figure. This kind of phenomena occurs in some of Rothko's *Seagram* paintings where the side of the shape curves inward in relation to the canvas, although greater dynamism arises from Heilmann's asymmetrical composition.

At the right end of the painting, the vertical ruled line is perhaps 1-2mm wide. It appears to blur, to move with resonance. This spatial phenomena creating the time of playing a sustained note, operates through the interruptions within the line itself due to the rough surface and a satin sheen greying the surface just to either side of the line. I cannot focus on the line on the right at the same time as the pink square and return to the dominant square, the string across black space blurred in my peripheral vision. It is as if I were playing the guitar through looking.

Like Rothko's *Black-Form* paintings, Heilmann's blacks powerfully suggest the spaciousness of the void extending behind the pink nacre that has set on the canvas like nail polish. Armstrong notes that the drips and geometric hard edges are iconic elements of modernism.²⁹ Nevertheless, in Heilmann's striking and weighty use of black, there are links back to the Spanish masters and the French courts of the fourteenth century, where black was recognised as a useful foil for colour.³⁰

Although Heilmann was listening to Bob Dylan, the Velvet Underground, the Rolling Stones and the Sex Pistols, an image comes to mind of a woman sitting in a bar as in Edward Hopper's *Nighthawks* (1942), and she begins to play a country and western song.³¹ But what if the music shifts to something quite different from what is expected, perhaps toward what the Spanish call *duende*?³² What exists beyond the pathetic, is the pathos, and I am reminded of Virginia Woolf's query about the moment she stands on:

²⁹ Elizabeth Armstrong, "To Be Someone," in *Mary Heilmann. To Be Someone*, ed. Karen Jacobson (Newport Beach, California: Orange County Museum of Art, 2007), 27.

³⁰ Anne Hollander, *Fabric of Vision. Dress and Drapery in Painting* (London: National Gallery Co., 2002), 365-67.

³¹ Armstrong, "To Be Someone," 27.

³² Jason Webster, *Duende. A Journey in Search of Flamenco* (London: Black Swan, 2003). Experiences of duende feature throughout Webster's book. He cites Aldous Huxley's cynical but descriptive definition: 'Dismal Spanish wailings punctuated by the rattle of the castanets and the clashing harmonies of the guitar.'

“is life very solid or very shifting?” Woolf asks.³³ I suspect Heilmann’s paintings ask the same question, as Heilmann was, at that time, deeply affected by the deaths of three close friends.³⁴

Sitting in a pink chair around four metres away to look at *The End of the All Night Movie* it seems that Heilmann has taken and made personal the power of Kazimir Malevich (Fig. 45). A matte black field is broken by a shiny black vertical line 1-2cm in width from top to base of the canvas and coincides with the right border of a pink rectangular shape on the left side of the canvas. Nevertheless, I feel like I am in a room looking at a blank audio-visual screen. The thick pearly pinkness and drips assert their presence and shift this reading. Perhaps I am in a dark room with dawn at the window. Is the line the edge of something, the end of the video perhaps?

Two dots and an elongated drip of pink paint below the pink figure are especially luminous in their dark ground. They could be tears. The edges of the pink rectangle are almost straight, paint stopped and edged by the use of masking tape; the pink appears to be painted over the black. Its lightness suggests window and screen. Myers believes the drips disrupt the interpretation of the window and undermine the black as the framing architecture.³⁵ He suggests rather the effect of “destabilisation” of an “inky depth” from which drips rise, enabled by the “wobbly” structures of the frames/shapes.³⁶ Close up, the thick, pearly square sits on the surface in an inert, plastic kind of way. Barbie’s car was made of the same stuff. As I step back, the pink appears to swell and advance, gallery lighting caught on its upper area like light on a satin dress. When I look at the whole from further away, the pink shape plays tricks, sinking back or floating forward in the black field.

Heilmann’s structures for carrying luminosity in these examples are the contrasts in material qualities of paint, colour, value and the dynamics of hard-edged, eccentric shapes in relation to other shapes and the edges of the picture. Paint structure provides the materiality – the mirroring properties of glossy black, the velvety depth evoked by flat matte black and the refractive pearlescent qualities of the pink paint. Heilmann’s

³³ Anne Olivier Bell, ed., *The Diary of Virginia Woolf. Volume Iii: 1925-1930*, vol. III, *The Diary of Virginia Woolf* (London: Hogarth Press, 1980).

³⁴ Armstrong, “To Be Someone,” 27.

³⁵ Myers, *Mary Heilmann Save the Last Dance for Me*, 7-8.

³⁶ *Ibid.*, 8.

strong tonal contrast of pink and black further projects a shimmery light from the pearly surface. Its juxtaposition with shiny black causes the contrast of two different kinds of reflection of light, like that of patent leather versus plastic pearls.

Howard Taylor

Geometric shapes were also important for West Australian artist, Howard Taylor. He translated his intrigue with the perception of natural forms and light phenomena into strikingly distilled paintings, sculptures and hybrid art forms, painted and sculpted.³⁷ In his most luminous paintings, Taylor employed concentric shapes: circles, squares and rectangles composed symmetrically and painted with careful construction of colour contrasts and surface qualities. I examined Taylor's works during May 2009 at The Art Gallery of Western Australia, The Wesfarmers Collection, The National Gallery of Australia and Galerie Düsseldorf in Perth.

The outward spatial movement of coloured light that seems to occur in *Foliage Light Figure*, (Fig. 46) is explained by Gary Dufour as a "binary composition" of one rectangle on a larger rectangle where "the resultant figure/ground relationship is then used to support the description of light observed in the bush."³⁸ The luminous effects Taylor achieves are described by Poling as part of the teachings of Kandinsky called *irradiation*, a term from perceptual psychology.³⁹ This is created through layering and juxtaposition of almost opposite colours as seen in the work in progress image of *Foliage Light Figure* (Fig. 47).

The structure of concentric shapes allows for the surrounding of colours by other colours and the generation of luminosity through juxtaposition. Concentricity enhances the radiating effect as seen in Eastern mandalas and paintings by Josef Albers, and his former student, Richard Anuszkiewicz.⁴⁰ These symmetrical iconic compositions suggest a central, frontal place of beholding.

³⁷ Ted Snell, "Light and Surface: The Art of Howard Taylor," *Art and Australia* 31, no. 4 (1994): 476.

³⁸ Gary Dufour, "Visual Experience and Pictorial Structure," in *Howard Taylor. Phenomena*, ed. Gary Dufour (Perth: Art Gallery of Western Australia, 2003), 50.

³⁹ Poling, *Kandinsky's Teaching at the Bauhaus. Colour Theory and Analytical Drawing*, 52.

⁴⁰ *Abstraction Geometry Painting. Selected Geometric Abstract Painting in America since 1945*, ed. Karen Lee Spaulding and Beverly Fazio (New York: Harry N. Abrams, 1989), 154.

Ted Snell notes that Howard Taylor's concern was with "the very structure of light", which the artist investigated through paintings of colour beside colour, with variations in surface quality.⁴¹ Snell comments on the differences in visual phenomena between red and pink of different opacities, reflective and textural qualities, but does not explain how they affect the conveyance of light or pictorial space.⁴² Significantly, Snell comments on how the viewer is engaged in moving around the paintings to notice their "subtle shifts in form generated by variations in colour and surface."⁴³ Such a kinaesthetic response constantly shifts the spaces of reception and further activates paintings' interactions with ambient light.

Here I will describe several other compositional approaches important for the delivery of colour, materiality and emanating light from particular paintings in Taylor's oeuvre. The first is the layering of translucent layers of paint as shown in *At Shannon Dam* (Fig. 48). The second approach is his sanding back of surface to reveal linear *scintilla* of white gesso, seen in the same painting. The third is his use of thick paint application beside thin, as seen in the concentric geometric composition of *Halation* (Fig. 1) and *Foliage Light Figure* (Fig. 46). While Taylor's geometries provide the spatial cues of the recessive planes of linear perspective, his employment of decreasing sized shapes to hold brighter, more pure colours with precise edges, inverts the usual expectation of the distant shape being furthest away. Consequently, there is an interplay of structure and colour which creates luminosity in the central rectangle, its materiality bringing it near, in both works at close viewing, and setting it back in space, as the beholder moves away.

Beholding *At Shannon Dam*, I felt as though I was held in the light of its upper margins and then suddenly released to fall into the watery luminosity of the lower regions of the painting. It is a door-sized work, but seems larger. I am echoed in the symmetry of the composition, its verticality and frontality. Greyish mauve marks mottle the lateral edges of the painting, and like the format, constrain my peripheral vision as Taylor's possibly was, by tree trunks.

Long, vertical, pale sage-green fluid paint is repeatedly stroked over olive green and darker shadowy layers. Many thinner horizontal strokes make a soft greyish-green

⁴¹ Snell, "Light and Surface: The Art of Howard Taylor," 478.

⁴² *Ibid.*

⁴³ *Ibid.*: 478.

middle zone. At close viewing, fine, linear, horizontal white marks are consistent with the painting of thinned layers of paint, and sanding back to reveal ridges of a gesso ground. In the lower third, blue is introduced along with a reddish purple made of many layers of long striations. Taylor breaks pictorial space with a colour shift at the indefinite boundary between water and land.

The blurred bowed junction, around one fifth the way up the canvas, with the softly luminous blue has the effect of flipping the lower watery area toward the viewer. It must be the dam. My suspicion is confirmed by looking at Taylor's small version of *Shannon Dam* (Fig. 49). It has similar light and spatial effects with less ambiguity, however, the small work does not invite or imply the viewer's presence, as the larger work does. The door-sized *Shannon Dam* proposes an invitation to become lost in the changing lights of reflections. I find vibrant strands and small luminous patches of blue amongst the murky greys. The narrow range of values suggests the failing light; it seems to be getting darker and I have the vague sense that I should be going home soon.

The many and varied layers of marks of colours ranging in purity are Taylor's structures for carrying light in this painting, as well as his method of revealing gesso by partial sanding. Depending on where I stand, the painting slips between an almost two-dimensional reading, as if it were made of layers of woven colours like a complex shot silk, and the ambiguous depth of its dusky subject. Unlike Turner, Taylor's marks do not get thicker in the superficial layers, rather they become lighter and more distinct creating contrasts of tone and clarity. Blurred marks of deeper, darker layers merge and recede, suggesting pictorial depth. Taylor must have imagined the beholder here too, at the edge of the dam, facing the water, uncertain of exactly what [s]he was looking at, an intermingling of leaves, light and reflections.

The most startling painting of Taylor's that I have seen is a small work titled *Halation* (Fig. 1). Halation, a term from photography, derives from halo and refers to "the spreading of light beyond its proper boundary in the negative image upon the plate, producing local fog around the highlights".⁴⁴ A perfect blue rectangle glows in an earthy field painted on a canvas board panel, centred on a cream box support. The painting is like the sounding of two notes, the central, light area crystalline, the bass,

⁴⁴ *The Shorter Oxford English Dictionary*, ed. C.T. Onions (London: Oxford University Press, 1973), 914.

dark other as if muffled by leaves. I am mesmerised. If the space between the reaching into the sky and the receiving of its light could be captured, compressed, then this luminous blue is the closest one might come to this. And it is the patch of sky as I look up from beneath the shadows of trees. Close up, it is level with my face. I perceive the smoothness of its stroked blue material nature as if it were stroking my cheeks, and then, on stepping back, the spaciousness of its luminosity stretches beyond and before the rectangle.

The greyness and thickness of the blue are significant. Firstly, a pure blue would create too strong a contrast and jump forward in the dark ground, and prevent the hovering that occurs at close viewing and the spatial depth that occurs even two metres away. The surrounding rectangle seems to project the 'light figure' back into pictorial space. This is emphasised by the grey-blue edges of the brown, as if the blue light is seen from inside a tunnel. The shadow on the inside of the second inner rectangle is edged by a lighter rectangle, reminiscent of Rothko's portal-like figures, that become spaces, depending on the location of the beholder. The outward shifts in colour from tan to grey are more subtle, so that the focus of the picture is a strong beat followed by softer echoes of the outer rectangles.

The paint is thick, laid horizontally on a ground of matte, blurred concentric greyed green and brown rectangles, seeming to resonate with the presence of the blue rectangle. From the strong presence of the heavy, blue substance, shaped by a palette knife, I shift my attention to the whole picture. As I do this, the blue becomes illusory space; its materiality is no longer apparent, its hard edges are echoed and balanced by several scumbled edges in the field. At around two metres, the shift of the blue figure from material to space is a sustaining phenomenon, from visual touching, to seeing. Sometimes I look up and am struck by a remarkable sky, or am simply reminded that the sky is there; this painting is like the poetics of that moment.

While the beholder's perception of spatial phenomena associated with luminosity depends on the space between beholder and painting, the scale of the painting also has a major influence. For a small painting, such as *Halation*, this is a small space. At close viewing, the actual depth of the blue shape of paint is evident and how it advances on its smooth, matte grey-brown ground. As I step back, my location seems to be within the shady grey-brown ground, connecting from that place with the shape of blue, a shape

standing for any gap between the trees. The experience of this is continuous and dependent on my movement – as I move, there is a shift in the poetics of space.

For large works, for example one of Rothko's *Seagram* paintings, illusion of space generated by luminosity and pictorial structures, occur over a much greater distance. Incidents on the surface can be seen close-up such as thicker areas of paint, brush-marks and surface qualities. I recall blood vessels, the heat of glowing coals, viscera and the sense Rothko's movements at this range. As I moved back several metres to take in the whole painting, there were several other people in the large space between me and the work, and light reflected off the upper part of the painting. Then I found the place where the painting becomes spacious and monumental. I noticed a shift in awareness from my bodily self with the close reading, and in taking in the enormity of the whole painting, a sense of dissolution in the void. This for me reinforces the dynamic nature of the poetic experience of paintings.

In pursuing this analysis I return to Taylor's painting *Foliage Light Figure* (Fig. 46). A mauve edge glows around the perimeter of a central green rectangle surrounded by a purplish-grey field striated with multiple reverberations of rectangles. The surface of the work is smooth and matte. While the luminous, dense centre of *Halation* alternately appears to swell forward and sink back into the relatively dull, smooth ground, in *Foliage Light Figure* there is a similar dynamic figure/ground relationship between the flat, smooth central shape and the darker surroundings. The central figure appears more distant, more ephemeral. The green hovers forward and also looks like it is seen in the distance from a shadowy space, especially when viewed from several metres away. At the places where the two main areas of colours join, the mauve has more blue right near its edge and the green is slightly warmer at its edge, causing an apparent jostle at the junction through the perceptual operations of equiluminance and simultaneous contrast as described earlier. This is relevant when considering *where* it is; the perceptual uncertainty of equiluminance suggests the spatial and temporal ambiguity of the central phenomenon of painted light. It cannot be placed.

The green rectangle has bright purple underneath that extends well beyond its shape, (observed in a digital archive of the work in progress) and makes the green more intense

through complementary contrast.⁴⁵ The edges of the many carefully painted concentric layers of rectangles cause the formation of an 'X' drawing out the corners of the composition, implicating its stretch well beyond the canvas. The luminous boundaries of the central green rectangle draw my eye back to the central area, so that the painting appears to expand and contract.

In *Bush Fire Sun*, the sun figure hovers in a luminous atmospheric haze (Fig. 50). As I walk from the lift to Wesfarmers reception desk, *Sun*, around eight metres away, gives a brief impression of solidity. It quickly turns to a ball of dry heat as I move closer. The red centre fades to a softly tinted periphery, which fades further as if the sun is circled by a penumbra of pale, luminous ash. The finely scumbled radial emanations from the vague red circle merge with horizontals encroaching on the edges of the sun figure. The heat glow permeates the entire canvas, with stronger reds emerging from beneath, creating a sense of the ominous burning potential of a dangerous fire. In the lower quarter of the painting, the almost equiluminous red shifts the grey toward a greenish luminosity at its edges, with simultaneous contrast jostling one's perception of where the surface is, creating an uncertain smoky depth inward, and radiance outward.

The value of grey and its opacity increase toward the top of the painting, in accord with the behaviour of smoke rising. The effect evokes the transmutation of light into a strange glare. I am drawn relentlessly to the centre of the sun and there is nothing there; the pall of 'smoke' renders the sun ephemeral. Faint scumbled marks of red lead my eye outward, with horizontal streaks of grey adding a more superficial dimension to the oppressive atmospheric field. The red sun is stronger in my peripheral vision than when I look at it directly. Shifting veils of grey lit from behind, come forward across the red, creating depth. Thinly scumbled, layered paint sinks into the weave of the canvas and white speckles of raised threads catch the light.

Did Taylor sand the centre of this work to, in effect, sprinkle it with light? On deciphering his painting notes, I believe he did lightly sand his surface, and painted many thin layers with different proportions of the components of his oil-based medium,

⁴⁵ Howard Taylor, "Work in Progress Image of 'Foliage Sky Figure' by Howard Taylor," ed. Douglas Sheerer (Perth: unpublished, 1998).

often wiping layers back.⁴⁶ His technique is like Rothko's "breathingness" of colour carried by medium. In this painting, technique translates easily to poetic suggestion; I suspect I could put my hand into *Bush Fire Sun* and feel the heat.

The above analyses show that several compositional structures were employed by the artists to construct the pictorial space from which light appears to emanate. In each of the works examined a combination of pictorial structures were employed indicating the artist's approach to visual language.

Turner's surfaces built of layers evoke a visceral sense of turmoil at close range. At several metres viewing distance, the roughly textured surface materiality settles into luminous atmospheric effects that imply great distance. Turner's paintings maintain their illusions of space and luminosity from the other side of the Tate's Turner room and even from the gallery above.

Light seems to emanate from within pictorial space, losing the boundary of the picture plane through its illusion in the paintings of Turner and Taylor. Their layers of colours and marks suggest the transience of natural phenomena. While Turner evokes atmospheric instability and powerful change, Taylor's paintings capture the shifting nature of light with the weight of balanced geometric forms suggesting a constancy of the phenomena distilled. Taylor used layers in the carefully calculated manner of Rothko, with manipulations of medium, sanding and wiping back, sometimes using contrasting areas of thicker paint. While the poetics of both artists' paintings approach the landscape Sublime, Taylor's geometries also suggest the contemplative and the constructed.

Heilmann exploits the material qualities of paint, the viscosity, sheen, texture, opacity or translucency. She uses layers of paint in a way that subverts the usual order of things, for example, the use of glossy black to prevent the usual suggestion of dark's recession in pictorial space. Perhaps one of Heilmann's most powerful structures is her use of imperfect shapes with perfect edges, creating dynamic pressures within her paintings. Through the use of these shapes with sensuous painted surfaces, luminosity appears to come from the surface rather than within it. Is there a void beneath the veneer?

⁴⁶ Howard Taylor, "Draft Notes for 'Bush Fire Sun' " in *estate of Howard H Taylor* (Facsimile in Archive of Douglas and Magda Sheerer, 1998).

While maintaining the severity of contrasts of shape and colour, the effect of informal formalism, as described by Alexander Dumbadze, Heilmann is intrigued by the uncertain location of things.⁴⁷ Heilmann (1999) notes her own obsession with the space of Asian paintings: "This is the front. That's behind. No, that's the front and this is the background. That's an edge. No, it's a line".⁴⁸ Spatial ambiguity is manifest in her pink and black paintings of the late seventies, which suggest a "way of looking that makes a still moment move in time".⁴⁹ Shape, line, and their materiality are employed by Heilmann to suggest the ambiguity of where things are, and in this way Heilmann is linked to Morandi, and to Martin, each of them informed by ancient Chinese art and philosophy.

Morandi's depicted objects appear to be in more than one location at one time. Generating a subtle luminosity, Morandi's colours of faded things are made with marks that challenge the boundaries of painted objects. Things are not as they seem; Morandi's works embody the paradox of certainty of the still life and the uncertainty of existence, the extraordinariness and everyday nature of being in the world. His seemingly simple paintings and methodical approach toward painting objects and the spaces between them, speak of an integration of the material with the ineffable.

Permanence and change, perfection and imperfection, are the major themes of Martin's paintings. Martin's works convey luminous colour, material and linear qualities affected greatly by viewing distance. Light reflects from the white ground of Martin's paintings so that high-value thin layers of colours appear to float beyond the surface. The weight of the humble line, measured and repeated, is the record of Martin's varied touch appearing to advance and recede from the picture plane.

Each of the works discussed demonstrates a different approach to making visual an idea through form, composition and materials for creating illusions of light and space. The findings suggest that the interaction of colours by juxtaposition and layering is particularly important for the creation of luminosity. This can occur with both translucent colours, as in the paintings of Martin and Morandi's watercolours, with

⁴⁷ Alexander Dumbadze, "Making It Look Easy: The Informal Formalism of Mary Heilmann," *Modern Painters* 80, no. 3 (2007).

⁴⁸ Ibid.

⁴⁹ Ibid.

opaque paint as in the work of Taylor and Heilmann, and a combination of both, as in Turner's and Taylor's paintings. At close range, shifts in opacity trigger sensations and associations with the tactile and create an actual space, and at a greater viewing distance, differentiation of the surface which enables seeing into pictorial space.

In all of the paintings I have examined, artists manipulated materials to augment luminosity. Where the paint is physically built up in layers on the surface, as in Turner's, Rothko's and Morandi's paintings, actual space is created between raised and flatter areas of the picture's surface. Translucent and transparent layers refract light so that it appears to emanate from within, especially evident in Fra Angelico's creamy *intonaco*, Morandi's white watercolour paper and Martin's roughly gessoed surfaces. Remarkably, Rothko's dark colours are luminous through the refraction of light at numerous interfaces of paint and mediums. Light is refracted by Heilmann's pearlescent pink paint; tiny ridges within the wide brush strokes appear to glow like thick threads of silk. All these material qualities have metaphoric implications, while acting as pictorial devices to create and convey luminosity.

In the paintings considered, pictorial structures other than linear perspective are necessary for conveying luminosity. Indeed, pictorial structures appear to contribute their own poetic suggestions and could be further investigated through considering a wider range of paintings. Linear perspective implicates a central and privileged position of viewing for the single beholder, however the paintings I have discussed in this chapter have not employed this structure and yet still have compositions that suggests this same iconic viewing location. This was an unexpected discovery that again suggests a direction for further investigations.

A range of pictorial structures for the delivery (and removal) of paint and medium as material and colour to produce luminosity and spatial effects were found in the paintings of Turner, Morandi, Martin, Taylor and Heilmann. Present are the paradoxes of painted substances creating light effects and the employment of pictorial structures that create substantial material surfaces and evoke pictorial depth. However, another unexpected finding was that the paintings examined embody poetic paradoxes. All of the paintings are still and yet evoke dynamism and uncertainty. The paintings of Taylor, Turner, Morandi and Martin embody the paradox of transience and the timelessness of

phenomena. Heilmann's paintings suggest the poignant co-existence of the fear of nothingness with the superficiality and ephemerality of pop culture.



Fig. 34 J.M.W. Turner, *Lake Lucerne: the Bay of Uri from above Brunnen*, about 1844, oil on canvas support: 727 x 983 mm, frame: 835 x 1095 x 60 mm, Tate Britain.



Fig. 35 J.M.W. Turner, *Sunset from the top of the Rigi*, about 1844, oil on canvas support: 711 x 965 mm, frame: 836 x 1096 x 57 mm, Tate Britain.



Fig. 36 Giorgio Morandi, *Natura Morta (Still Life)*, 1960, oil on canvas, 25.5 x 35 cm, Carlo Antonello Collection.



Fig. 37 Giorgio Morandi, *Natura Morta (Still Life)*, 1960 (P.1959/20), watercolour on paper, 18.5 x 27 cm, Turin, Fondazione Guido e Ettore De Fornaris, Galleria d'Arte Moderna e Contemporanea.



Fig. 38 Giorgio Morandi, *Still Life (Still Life)*, 1942, oil on canvas, Museo Morandi, Bologna.

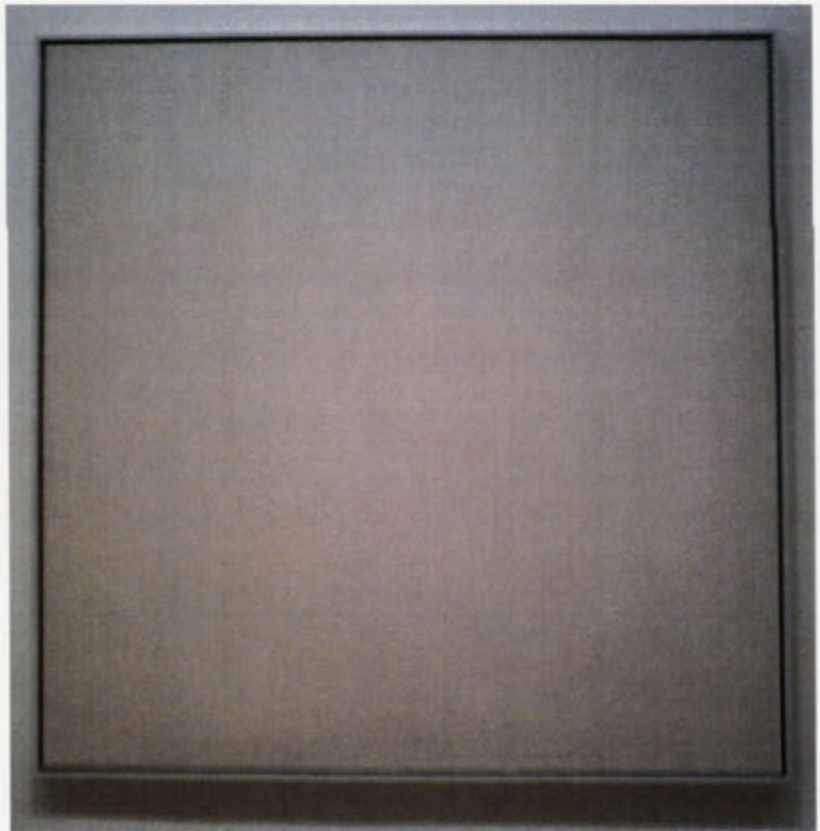


Fig. 39 Agnes Martin, *Red Bird*, 1964, synthetic polymer paint and coloured pencil on canvas
180.5 x 180.5 cm, MOMA, New York.

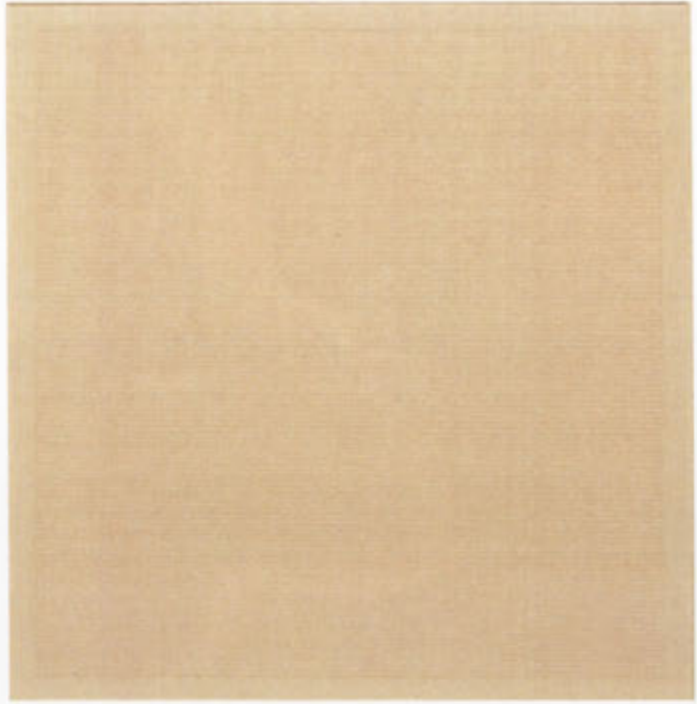


Fig. 40 Agnes Martin, *Red Bird*, 1964, Coloured ink and pencil on paper, 31.1 x 30.4 cm
Museum of Modern Art, New York.

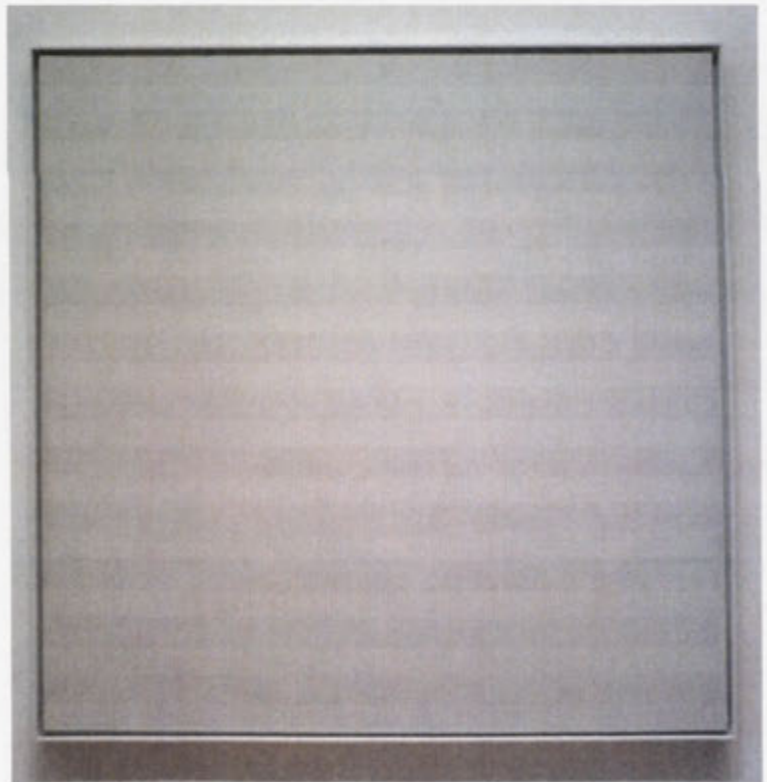


Fig. 41 Agnes Martin, *The Tree*, 1964, oil and pencil on canvas, 180.5 x 180.5 cm, MOMA, New York.



Fig. 42 Agnes Martin, *Untitled III*, 1982, synthetic polymer paint, pencil on canvas, 182.9 x 182.9 cm
National Gallery of Australia, Canberra



Fig. 43 Mary Heilmann, installation view from *Mary Heilmann: All Tomorrow's Parties*, Secession, Vienna, 2003.

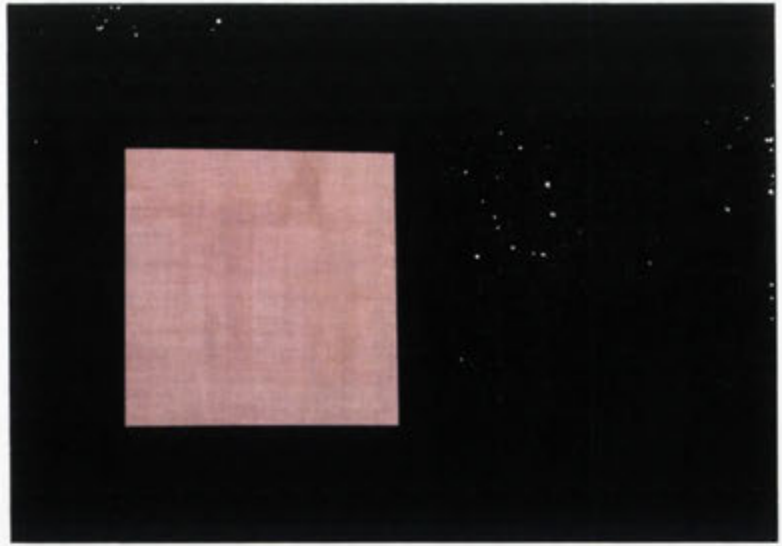


Fig. 44 Mary Heilmann, *Guitar*, 1979, acrylic on canvas, 76.2 x 101.6 cm, Collection of Mary and David Robinson, Sausalito, California.

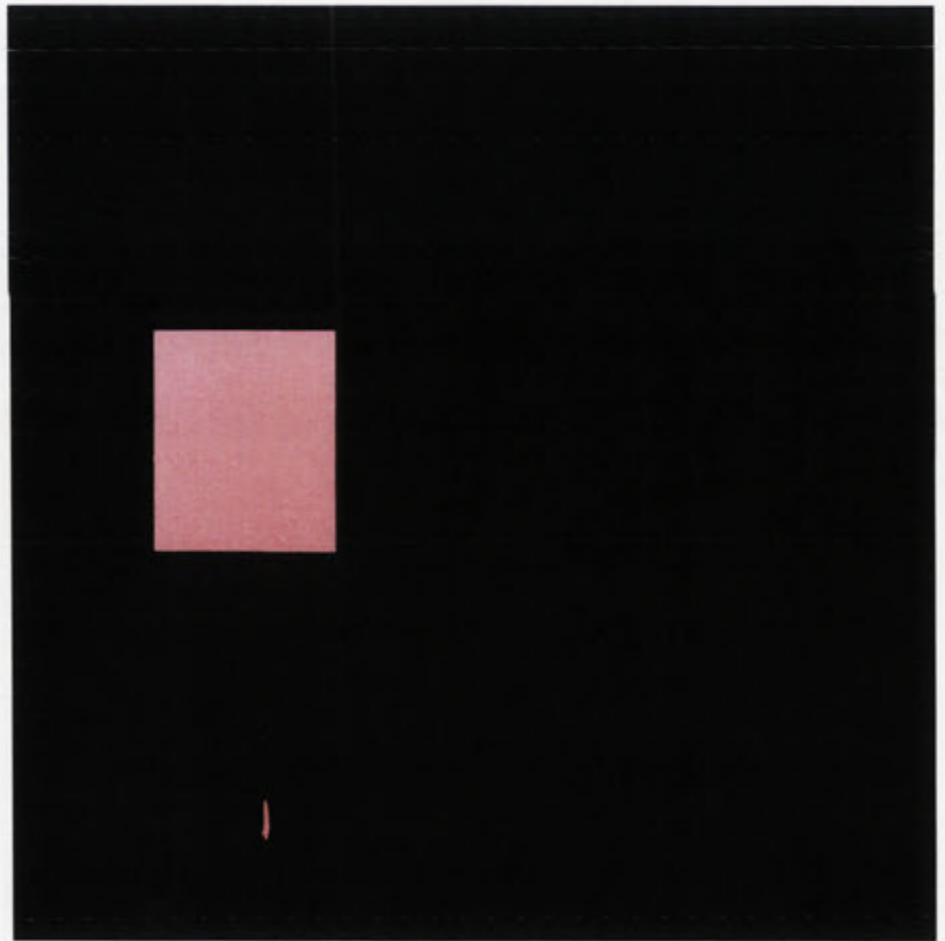


Fig. 45 Mary Heilmann, *The End of the All Night Movie*, 1978, acrylic on canvas, 152.4 x 152.4cm, Collection of Edward Israel, Los Angeles.

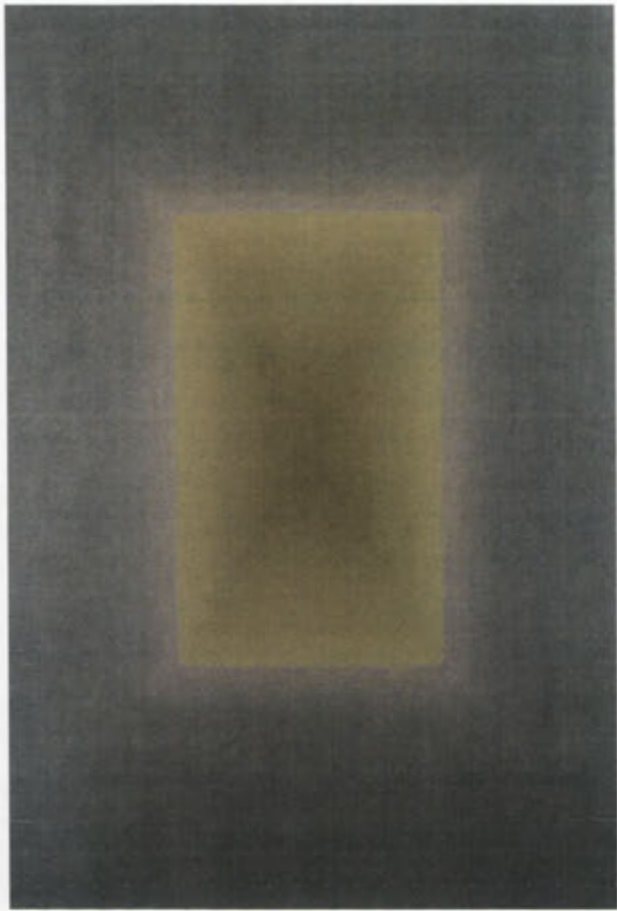


Fig. 46 Howard Taylor, *Foliage Light Figure*, 1987, oil on canvas, 91 x 62 cm
Private Collection.



Fig. 47 Howard Taylor, *Foliage Light Figure* in progress



Fig. 48 Howard Taylor, *At Shannon Dam*, 1998, Oil on board, 183 x 91 cm, National Gallery of Australia, Canberra.



Fig. 49 Howard Taylor, *At Shannon Dam*, 1998-2001?, oil on board, 56 x 28 cm, Private Collection.

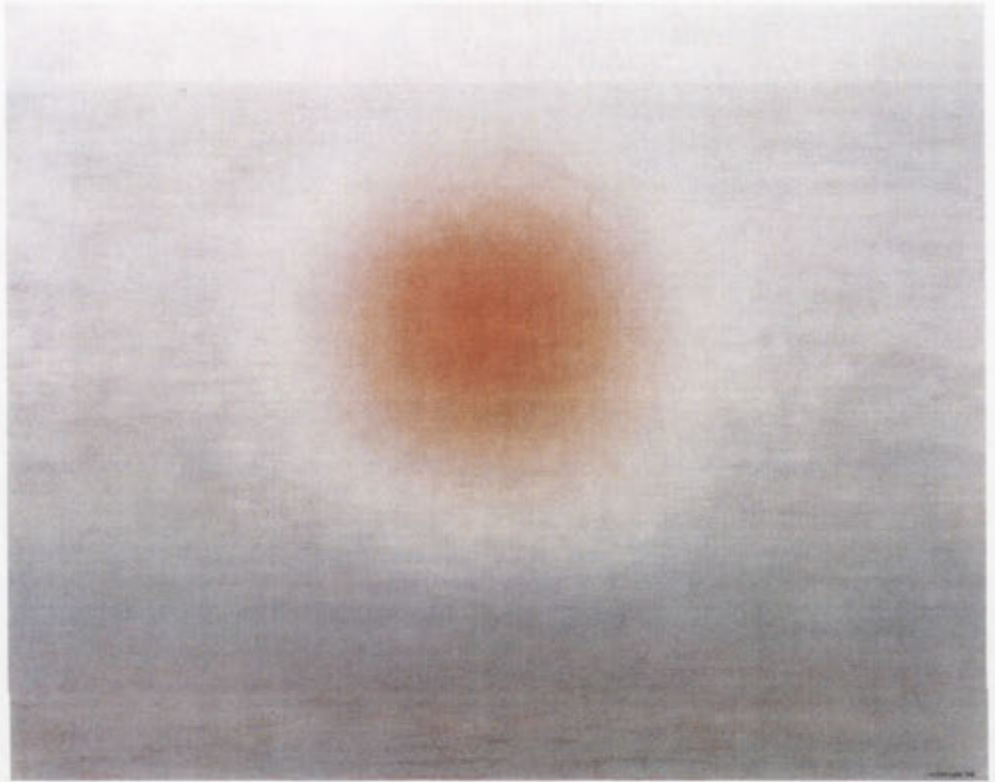


Fig. 50 Howard Taylor, *Bush Fire Sun*, 1996, oil on canvas, 122 x 152 cm, Wesfarmers Collection.

CONCLUSION

This dissertation set out to explore the interrelated material, illusory and poetic qualities of luminosity in painting. The investigations focused on four key questions: How do materiality and luminosity operate spatially to convey illusions of pictorial space, affect phenomenological space and evoke the poetics of space? Are the operations of materiality and luminosity paradoxical, complementary and/or conflicting? Are other elements of painting important for creating the illusion of luminosity? And how can I discuss the formal elements and the poetic experience of paintings in a way that is useful to painters, viewers and commentators?

The materiality of painted light, a paradox noted by some art historians in the scholarly literature, was investigated.^{1 2} Through this I developed a greater sensitivity toward the role of painters' material processes in the creation of luminous, spatial and potentially poetic effects and was able to extend and contest their arguments. This located my research within the kinds of phenomenological readings as given by Kasha Linville of Agnes Martin's paintings, where she considers the experiences of both surface details and different qualities of light dependent on the location of the beholder, each with poetic qualities.³ Rosalind Krauss extended this discussion.

Krauss likened the three different moments of viewing to a cloud between brackets, where the cloud is the atmospheric effect of middle range beholding; a visual experience determined by the location of the body in relation to the painting.⁴ According to Krauss, the perception of atmospheric effects, or "the cloud", is bound on one side by the close-up view of the picture surface and on the other side by the distant view, said to be opaque.⁵ Thus, the close and distant views deny the spatial illusions offered by the painting at a middle distance beholding.

While Krauss explores the "cloud", she does not distinguish between the "brackets" suggesting both involve a perception of flatness. However, the inner bracket or close-up

¹ Tuma, "Enhancing Stillness: The Art of Agnes Martin."

² Alpers, "The Master's Touch."

³ Linville, "Agnes Martin: An Appreciation," 72.

⁴ Krauss, "The /Cloud/," 165.

⁵ Ibid.

view reveals the materiality of the surface. Closely viewed, paintings reveal surfaces embedded with visual, tactile and kinaesthetic information. The tactile experience of the painting is sensual, linking paint qualities with personal experiences of substances. The effects of light are discernable on surfaces with varying properties of refraction and reflection and frequently prompt the viewer's movement. The eye moves with the gestural energy and size of the brush marks, easily translating these into the actions of the painter. Kinaesthetically, the beholder can identify, as David Malouf notes, with the creative act.⁶ The close view privileges this connection through the evidence of the artist's presence, and is not, as Krauss suggests, a bracket of impermeability. The crucial significance of viewing distance to how luminosity is perceived was an unexpected finding.

At locations within the middle-range of beholding, the viewer may cease to be conscious of the picture plane. It is no longer a barrier. The physical body may not be experienced as a barrier either, as individual responses of awe, wonder, curiosity, or whatever it may be, connect the imagination with the receptive, pictorial and actual spaces of the painting. This merging of spaces is Bachelard's concept of "the poetics of space", a phrase encompassing the myriad and shifting individual experiences of beholding paintings.

Supplemented by research into materiality of the painted surface, luminosity, spatial effects and the poetics of space, a sensory poetic model and approach to guide analysis and interpretation of paintings was developed. Key influences were Bachelard's poetics of the merging of the intimate space with immense space and the writings of John Berger.⁷ Bachelard's concept suggests a sophisticated beholding experience linking mind and immediate viewing space with the pictorial space of a given painting, while Berger writes of the nuanced and connected experience of interpreting paintings.

The model was developed in response to the failure of formal analysis to account for the interrelations between pictorial elements and the beholder's experiences. The model evolved initially in considering Barthes's personal "voice of singularity" enlivening the description, or "the voice of banality" as a step toward integrating examination and

⁶ David Malouf, "The Sublime: Questions on the Way to the Exhibition," in *Sublime 25 Years of the Wesfarmers Collection of Australian Art*, ed. Allan Watson (Perth: Wesfarmer Limited in association with the Art Gallery of Western Australia, 2002), 37.

⁷ Bachelard, *The Poetics of Space*.

interpretation.⁸, Questions derived from the art essays of John Berger followed. In synthesising this information within an interpretative framework I have expanded an approach to the observation and interpretation of paintings. While this approach requires sustained looking and interpretation, it is perhaps indicated in our era of alienating, dehumanising speed.

The sensory poetic approach informed the examination of works by artists concerned with particular qualities of light. It is systematic and grounded in the observation of formal elements. With its integration of the subjective/poetic domain, it may usefully assist with accounting for the power of paintings in discussions beyond this paper by critics, artists, educators, curators and historians.

In Chapter Two, the underdeveloped links in the literature between Mark Rothko's and Fra Angelico's painted luminosity and dry surface materiality were explored. I found that both artists used colour interaction and assimilation, mediums and surfaces with high refraction properties, building luminosity into their works and the beholding encounter. Fra Angelico's representation of architecture shows the passage of light in his *Annunciation* frescos, and Rothko's reference to architecture through his portal-like forms allows for the dynamic operation of his colour and material contrasts.

The setting, scale and pictorial compositional structures are significant in their impact on our experience of paintings and also contribute to the poetics of space. Fra Angelico's intimately scaled works with architecturally based compositions echo the surrounding, actual architecture, and extend the space of the picture to include the viewer. Rothko's massive paintings in the large gallery space with their mysterious portals and voids, command and overwhelm. The paintings prompt my movement in a similar way to the sparkle of silica in the wings of the angel in Fra Angelico's *Annunciation*. Through intermittent interaction with light, the materiality of Rothko's painted surfaces create dynamic viewer engagement and evoke uncertainty and transience. For me, there is a paradoxical poetic of weighty stillness, and a sense of the impending unknown.

Didi-Huberman's theological approach to discussing the material nature of painted luminosity in Fra Angelico's Cell 3 *Annunciation* was contested. I suggest that

⁸ Barthes, *Camera Lucida*.

examining the physical qualities of paintings' surfaces is more likely to yield answers to questions about materiality, visual effects and appearances.

I determine that the apparently dry materiality of Fra Angelico's surfaces is an illusion substantially related to viewing distance. While materiality and luminosity are there at the same time on the painted surface or within the pictorial space, materiality is perceived at close viewing and luminosity at a middle distance where tactile details coalesce. There may be a place of viewing where we can shift our focus between surface and pictorial space, however, this cannot occur with very large paintings that require a large viewing distance to be fully seen. As the space of reception alters, so does our engagement and response, consequently, the direct experience of examining paintings is revelatory.

This inquiry also revealed that luminosity influences pictorial space in three main ways: as depicted light, through interaction with lighting, and from perceptual effects arising from colour interactions. However there is another dimension to luminosity, as it has long been a metaphor for the transcendent and the numinous experiences of indefinite expansive space. Rothko understood this from his work in theatre. It is not limited to religious depictions, although Fra Angelico's *Cell 3 Annunciation* is an excellent example of the various operations of luminosity. Depicted light appears to move into and out of pictorial space, ambient light interacts with the fresco surface reflected from the adjacent window, and the perceptual creation of light occurs through the juxtaposition of colours. The poetics of the luminous constructed space resonates with a lightness of being, and seems to radiate austere calm and power without force.

It is proposed that for the Seagram paintings, Rothko may have been more informed by Fra Angelico's large scale, dark red and azurite sky of the Chapter Room Crucifixion, than the cell frescoes, as has been suggested in critical discourse.⁹ The research of Rothko's and Fra Angelico's paintings also indicated the significance of different pictorial structures for conveying the illusion and poetics of light.

The role of pictorial structures in creating luminous effects was further explored through the paintings of J.M.W. Turner, Giorgio Morandi, Agnes Martin, Mary Heilmann and Howard Taylor. While the number of works examined was necessarily

⁹ Ashton, "Rothko's Frame of Mind," 21.

limited, the varied choice of artists expanded the range of the inquiry. Further research might focus in greater depth on a particular painter.

A range of significant structural approaches were identified: the layering and juxtaposition of colours varying in purity, thickness and mark creating actual, and illusional luminosity and atmospheric space; the iconic composition; the spatial ambiguity of objects and fields of colour; fine veils of high tones and varying linear weights; the use of enhanced materials and geometric concentric structures. Numerous pictorial structures come into play in generating the sensation of luminosity, and also operate to articulate space.

Light phenomena in painting depend on materials. From the examination of Martin's paintings, it became clear that the experience of the paradox of painted light is a two-fold process of perceiving paint as material, and paint as generating sensations of light. A close viewing reveals tactile visual information about small areas of surface materiality. At the middle distance, the pictorial elements combine: colour interactions generate luminosity, in concert with compositional devices creating a sense of pictorial space. Luminosity actually depends on materiality and colour juxtapositions delivered by compositional structures. The materiality can be heavy as in Turner's paintings, or sheer, as in Fra Angelico's, or varied and layered as in Taylor's and Rothko's works. While attention is on the surface or within the pictorial space, greatly influenced by the beholder's physical and mental spaces of reception, both materiality and luminosity are there at the same time and interdependent. Painted light is thus paradoxical and complementary.

The beholder's perceptions occur in, and depend on, the space of reception, that is where [s]he is located in relation to the painting, and this is influenced by extrinsic and intrinsic factors. Extrinsic factors can include lighting and exhibition conditions, the pictorial elements of the painting and the presence of people. In choosing paintings for their different qualities of light, I was struck by the realisation that each of the artists used frontally oriented compositions suggesting an iconic relation between the painted object and a central location for the single beholder, in turn suggesting an intimate dialogue. Intrinsic factors extend to the beholder's visual perception, state of mind, and all the experiences that have informed their being in the world. The concert of

luminosity, materiality, pictorial structures, and intrinsic and extrinsic factors, create spatial illusions and the potential for the poetic experience.

The focussed attention given to material processes and resulting effects may be of interest to a broader audience. While it is difficult to discuss our responses, often beyond verbal language, my research, observations and reflections bring together disparate sources and offer the understandings of a painter, researcher and beholder.

Concern with paradoxes and the poetics of space in painting is a humanising approach. It is important to discuss what it is that matters to us in order to counter alienation and totalitarianism, as Ann Lauterbach explains:

Art is a language which anneals individuals to each other through experiences that are uniquely human, that demand connection at the level of meaning. If we lose our ability to make meaning – that is, to interpret, to find form in the raw materials of life – then we stand in danger of having meaning made for us, a rupture between what is said and done, between false intentions and disastrous consequences.¹⁰

Paintings are remarkable primary sources embodying tracts of research toward the concretisation and communication of ideas and poetic experiences. While the research has led to deeper understandings as intended, I remain intrigued by the paintings examined. All has not, and cannot be explained, and this in itself sustains the persistence and enjoyment of painting. The painting of light is, paradoxically, a physical matter of paint touching the support and evoking spatial effects beyond the picture plane, reverberating within the picture and into the space of reception, potentially affecting the senses and imaginative mind of the viewer, and thereby contributing to the poetics of space.

¹⁰ Ann Lauterbach, *The Night Sky. Writings on the Poetics of Experience* (New York: Penguin Books, 2005), 248.

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- Notes in Skilled Musical Performance." In *Rhythm Perception and Production*, edited by P. Desain & L. Windsor, 217-23. Lisse, NL: Swets & Zeitlinger, 2000.
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Curriculum Vitae Suzanne Louise Moss

Born 1963, Sydney

Education

- 2006-10 PhD Candidate, Painting Workshop, School of Art, College of Arts and Social Sciences, Australian National University, Canberra.
2003 University Medal in the Honours School of Visual Arts.
2001-3 BA (Visual) Hons 1A, Painting. ANU School of Art.
2000 BA (Fine Arts), Charles Sturt University, Wagga Wagga.
1994-9 Private painting tuition Laurie Redgrave, Redgrave Studios.
1985 BAppSc (physio), Cumberland College of Health Sciences, Sydney University.

Solo Exhibitions

- 2010 *Painting light, touching space.* Exhibition presented for the requirements of the Doctor of Philosophy, ANU School of Art Gallery.
2009 *Suzanne Moss. Review exhibition.* Foyer Gallery, ANU School of Art.
2005 *Space for Peace.* ANCA Gallery, Canberra.
2004 *Bittersweet Mini-series.* ANCA Gallery, Canberra.

Selected Group Exhibitions

- 2010 Finalist in the 59th *Blake Prize.*
2009 *Radar. Graham Eadie, Suzanne Moss, Gary Smith, Frank Thirion, Elefteria Vlavianos.* M16 Gallery, Canberra.
2009 *The Phoenix Prize.* ANU School of Art Gallery.
2008 *The Clifton Prize.* Canberra City.
2007 *Process: Inspiration to Presentation.* Melbourne, The Town Hall Gallery.
2006 *Degrees of resonance and separation. Suzanne Moss and Martine Peters.* ANCA Gallery, Canberra.
2006 *Process: Inspiration to Presentation ANCA Tenants' Show 2006.* ANCA Gallery, Canberra.
2006 *Picture this: painting alumni 2000-6.* ANU School of Art Gallery, April 6-29.
2006 *M16 Drawing Prize.* M16 Artspace.
2005 *CCAS Manuka Drawing Award 2005.*
2004 *Hatched. National Graduate Show* Perth Institute of Contemporary Arts. Perth.
2004 *Three Colours White.* Group Show. Brenda May Gallery, Sydney.
2003 *130 Degrees. School of Art Graduating Students Exhibition.* Canberra School of Art Gallery.

Reviews

- 2005 Helen Musa, 'Moorish for Moss' Review of *Space for Peace*, Canberra Times, Times 2, Dec 5, p.9.
- 2006 Sharon Peoples, 'Painter, textile artist work together as if one', Review of *Degrees of resonance and separation*, Canberra Times, Times 2, Sept 15, p.4.

Prizes and Awards

- 2009 Istituto Italiano di Cultura Premio Italia' Award, 1st
- 2006-10 Australian National University PhD Scholarship
- 2008 Istituto Italiano di Cultura Premio Italia' Award, 2nd
- 2008 ANU Field Studies Grant for research in Florence, London, New York.
- 2007 ANU School of Art Materials Grant
- 2003 ANU University Medal in the Honours School of Visual Art
- 2003 ANU Emerging Artists' Support Scheme (EASS) Embassy of Spain Travelling Scholarship to Spain.
- 2003 ANU EASS Animal Health Australia Loan Collection Award
- 2003 ANU EASS Canberra Grammar School Acquisition Award
- 2003 ANU EASS Australian War Memorial Acquisition Award
- 2003 ANU Honours Scholarship

Professional Practice

- 2010 Lecturer and tutor in Painting and Art Theory Workshops, ANU School of Art, Canberra
- 2006-10 Doctoral candidate (Visual Arts), Painting, ANU School of Art
- 2009 Pinnacle Teacher Training Program, ANU
- 2009 Lecturer in the Painting Workshop ANU School of Art, Semester II
- 2009 Assistant drawing teacher, Painting Workshop ANU School of Art
- 2008 Tutor in the Art Theory Workshop, ANU School of Art
- 2007 ANU Graduate Teaching Program
- 2007 Assistant drawing teacher, Painting Workshop ANU School of Art
- 2006 Assistant drawing teacher, Painting Workshop ANU School of Art
- 2004-6 Resident at Australian National Capital Artists' Studios.

Collections

The Australian War Memorial, Canberra; The Embassy of Spain, Canberra; Canberra Grammar School; Private Collections in Sydney, Canberra, Wagga Wagga.

RESEARCH DEGREE CANDIDATES – ANNUAL REPORT AND PLAN

STUDENT NAME	Suzanne Moss	STUDENT ID	u3357567
A. CASS Student Office will provide a system generated cover sheet which is to be attached as Page One for each Candidate (Please check details and indicate any changes required)			
B. Student Section (to be completed by all Candidates) Please elaborate under the following headings <i>all highlighted text boxes expand to allow for detailed information</i>			
<p>B1. Detail your progress and achievements over the last 12 months (or since last annual report and plan)</p> <p>During the last year, my Studio Practice-led research led to further evolution of my previously altered topic:</p> <p>Mystery and reverie or a poetics of tension? Studio Practice-led Research investigating inter-relations between visual poetics, materiality of surface, and colour as luminosity and darkness in painting.</p> <p>to</p> <p>Painting light, touching space: investigating how luminosity and the materiality of the surface of paintings create spatial illusions and contribute to the poetics of space.</p> <p>This shift of thematic concern to include space and the poetics of space resulted from further development of both my Studio Research and Dissertation. I realised, especially through critique, the significance of spatial illusion in my painting, inextricably linked with the fluctuating luminosity of concentric colour interactions. Studio Research included the investigation of large scale, rectangular formats (2.4 x 1.8m) using smooth and rough surfaces. These works were not considered successful due to the space of reception demanded by the large works, which minimised the impact of the more textured surface. The scale of compositional elements required more experimentation, however, I could not cope with the physical demands of the large overall scale. Also, the rectangular format did not provide the stabilisation of the composition permitted by the square.</p> <p>I have experimented with curved concentric shapes which markedly increase the compositional complexity and dynamics. My plan is to increase the scale of these works from 30cm to around 120cm, with the aim of balancing the complexity using a more spacious composition. The other most recent visual research has been with a return to the regular grid, however, this time using a finer scale of 2cm squares over a 150cm square format. Informed by the links between quantum physics research, consciousness and zen writings, my aim is to paint meditative, emanating, luminous painted fields. The role of iridescent medium has been investigated, however, its darkness when not reflecting light creates too much contrast.</p> <p>I have continued to investigate high value colour interactions using irregular concentric grid-based compositions as a means of ordering and layering colours. I have recently completed a series of experimental works on ceramic surfaces on board with acrylic paint. Due to the unsatisfactory results, I have returned to stretched linen for the final body of paintings for examination in March 2010.</p> <p>A full draft of my dissertation has been reviewed by my supervisors and is currently in the editing process. The research of the Dissertation commences with the writing of Kathryn A. Tuma, Kasha Linville and Rosalind Krauss, as the authors consider the materiality, luminosity and poetics of Agnes Martin's paintings. Linville's phenomenological reading, extended by Krauss, was found to be of particular relevance. It was demonstrated that the material qualities of paintings contribute to spatial illusions along with colour interactions creating luminous effects, dependent on the space of reception, or viewing distance.</p> <p>In Chapter 2, a Sensory Poetic Model was developed mostly from the writings of John Berger as a method for informing discussion of both the formal and poetic aspects of painting in the following chapters. Chapter 3 investigated the materiality and luminosity of Fra Angelico's and Mark Rothko's paintings, compared in the literature in terms of their dry surfaces and luminosity. Field studies (ANU funded, late in 2008) to examine Fra Angelico's frescoes in Florence and Rothko's paintings in London and New York greatly informed this and the following chapter. It became clear that pictorial structures are particularly important for the composition and interaction of colours which create illusions of space and light, thus Chapter 4 focussed on this. Paintings of JMW Turner, Mary Heilmann, Agnes Martin, Giorgio Morandi and Howard Taylor were examined and discussed. Field studies (personally funded, May 2009) to Perth permitted the examination of Taylor's paintings</p>			

with the kind permission of Douglas Sheerer.

During Semester II, I have undertaken the Pinnacle Teachers' Program for Graduate Teachers, and as part of that, presented lectures in the Painting Workshop based on Chapters 2 and 3.

B2. Have concerns mentioned in your previous annual report and plan been addressed? Give details.
I followed through on plans for my Dissertation to undertake observational analyses and writing about primary sources by painters concerned with particular qualities of light. Through analyses and syntheses, the employment of colour as light in painting and the poetic impact or tensions created by materiality of surface were investigated as intended. In my Studio Research, I experimented with scale, format and on various surfaces - rough, smooth, canvas, linen, board, ceramic on board - before deciding to return to stretched linen for the final body of paintings. Materiality was also investigated comparing acrylics, oil, iridescent mediums and pumice.

B3. Have you completed research integrity training? YES NO

B4. If required, have you obtained ethics clearance? YES NO

If so, detail from whom and when and list your Human Ethics Protocol Number.

NA

B5. Have any of the following problems affected progress over the past year? (tick or double click on box to tick electronically)

Interruption to supervision	<input type="checkbox"/>	English language/comprehension and /or writing	<input type="checkbox"/>
Employment commitments	<input type="checkbox"/>	Access to research materials	<input type="checkbox"/>
Financial	<input type="checkbox"/>	Understanding work expected	<input type="checkbox"/>
Other	<input type="checkbox"/>	Health/personal	<input type="checkbox"/>

Please elaborate on specific issues identified and indicate what steps have been taken to address these issues?

B6. Specific Milestones for research progress in the coming year
(eg. completion of a body of work, a chapter, development of research methodology, fieldwork etc). You should develop these objectives in consultation with your supervisor. These objectives will be considered at your next annual review.

My plans are to complete my Dissertation and Exegesis for forwarding to examiners early in January and the completion of a new series of paintings for examination late in March, 2010. I would like to demonstrate progress and turning points during the last three years through an exhibition of works in the Painting Workshop and two related series of paintings in the School of Art Gallery.

B7. (a) What is your maximum submission date? 7.2.10
(b) Give your projected submission date (if your expected submission date is beyond your current maximum submission date please detail reasons) 7.2.10

B. Have you completed any coursework required for the degree or courses related to the degree? YES NO N/A

If Yes, provide details

Course ID	Course name

- B9.** (i) How many hours per week are devoted to your candidature? 45
(ii) How many hours per week do you undertake paid employment? 4

B10. Supervision

Do you meet and discuss your research with your supervisor at least once per week at least once per month
 at least once per semester communicate by correspondence only

Do you meet and discuss your research with your panel members either collectively or individually at least once per week at least once per month
 at least once per semester communicate by correspondence only

Please elaborate on the level of support and advice you have received during the last year from your supervisor(s). If you are unsatisfied with your current supervisory arrangements please contact the Associate Dean (Research Training) for advice.

I have received all the supervisory support I have required during the last year. The advice I have been given has been generous and helpful. My questions have always been answered comprehensively.

B11. Resources (eg computer, office space)

Do you have sufficient resources to support your research program? YES No

If No, please elaborate on the current level of resources available and detail any additional resources required for the completion of your research program

Due to the generosity of my family, i have had sufficient resources to support my research. I was waiting for a computer for over two years with no sign of that being forthcoming. I enquired several times about this and gave up.

Affording the quality of materials needed to make work at this level has been a concern for me especially during the last year. \$500 allowances are routinely given to environmental science students for books without a competitive selection process. i would like to see equity across ANU faculties regarding these kinds of allowances for material resources necessary for the completion of one's course of studies with reduced stress.

Section B should be completed by the Candidate and then forwarded (with Section A – cover sheet) to their Chair for completion of Section C. This form can be forwarded in hard copy or saved and emailed.

C. Chair Section

C1. Has the candidate:	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
(a) diligently and consistently applied themselves to their project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) shown initiative with the requirements of the research program and the level of study?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) made satisfactory progress over the past year or since last review?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C2. Have any of the following problems affected progress over the past year? (tick or double click on box to tick electronically):

- | | | | |
|-----------------------------|--------------------------|--|--------------------------|
| Interruption to supervision | <input type="checkbox"/> | English language/comprehension and /or writing | <input type="checkbox"/> |
| Employment commitments | <input type="checkbox"/> | Access to research materials | <input type="checkbox"/> |
| Financial | <input type="checkbox"/> | Understanding work expected | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | Health/personal | <input type="checkbox"/> |

Please elaborate on specific issues and indicate what steps have been taken to address these issues?

C3.

Do you meet and discuss the research with the candidate on average

<input type="checkbox"/> at least once per week	<input checked="" type="checkbox"/> at least once per month
<input type="checkbox"/> at least once per fortnight	<input type="checkbox"/> communicate by correspondence only

Are the general supervisory arrangements satisfactory? YES NO

If not, how could they be improved?

C4. Do you agree with the projected date of completion of the research and submission of thesis indicated by the candidate at B7? YES NO

C5. Any other comments on the candidate's work and rate of progress?

Excellent progress toward objectives as outlined.

C6. Recommendation to the Head of School/Centre: The progress of the candidature **during the last 12 months (or since last review)** has been assessed to be:

<input type="checkbox"/> Satisfactory	meeting all requirements; continued enrolment in candidature recommended
<input type="checkbox"/> Marginal	Continued enrolment subject to the outcome of an additional review on _____ at which time progress against the attached thesis related tasks and deadlines will be reviewed
<input type="checkbox"/> Unsatisfactory	<input type="checkbox"/> an additional review will be held on _____ at which time progress against the attached thesis related tasks and deadlines will be reviewed
	<input type="checkbox"/> recommendation to the Delegated Authority that the candidate be requested to show cause why the candidature should not be terminated for the reasons attached

SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO CASS STUDENT OFFICE

D. Approval		
D1. Student		
My Chair has discussed Sections B and C with me.		
NAME <i>Suzanne Moss</i>	SIGNATURE <i>Suzanne Moss</i>	DATE <i>13/10/09</i>
D2. Chair of Supervisory Panel		
I have read section B of this report		
NAME <i>RUTH WALLER</i>	SIGNATURE <i>Ruth Waller</i>	DATE <i>8/10/09.</i>
D3. Head of School/Centre		
I have read sections A – C of this report and recommend/ comment as follows		
COMMENTS <i>excellent progress noted. (look forward to the submission in 2010.</i>		
NAME <i>Korbyn Bull</i>	SIGNATURE <i>Korbyn Bull</i>	DATE <i>13/10/09.</i>
D4. Delegated Authority		
I have read sections A – C of this report and recommend/ comment as follows		
COMMENTS		
NAME	SIGNATURE	DATE

Completion of an Annual Report and Plan is compulsory for all students enrolled in a research degree

- For students who commenced full-time on or before 31 March, the Thesis Proposal Review and Annual Report and Plan are to be combined. This process must be finalised by **15 December** of the first year of candidature
- For students who commenced full-time between 1 April and 31 August, the Thesis Proposal Review and Annual Report and Plan process must be finalised by **30 June** the following year
- For continuing students all Sections of the Annual Report and Plan are to be completed by **30 September**