

Light Touches: Cultural Practices of Illumination, London 1780-1840

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Abstract

In the last decades of the eighteenth century, urban lives were touched by a series of innovations in the technology and aesthetics of illumination. Unfamiliar combinations of new fuel sources and auxiliary equipment (for example, curtains, blinds, glass, mirrors and lampshades) meant that cities looked and felt different during both the day and the night. The spheres of elite, popular, public and private culture explored, exploited and were fascinated by the cultural value of light.

Through four case studies in the aesthetics of urban illumination, my thesis demonstrates how the acquisition of skills for the manipulation of transparent and reflective surfaces were crucial when negotiating a balance between self-expression and standards of taste, morality, gender and class. Rather than relying upon canonical examples of the period's fascination with light, such as the high Romantic idealization of nature's sunrises and sunsets, my thesis investigates more everyday encounters with light in the built environment: the fashionably genteel pastime of transparent painting; the gendering of light to design both domestic interiors and female identity; the appropriation of patrician top-lighting for public buildings of education and exhibition; and the popularity of illuminated spectacles in commercial pleasure gardens. I argue that these new possibilities of lighting temporarily enabled new possibilities of subjectivity. My historical phenomenology suggests that the formation of perception between 1780 and 1840 was actively directed towards changes in the world through a finely-attuned consciousness of light.

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Abbreviations

BDC: Bill Douglas Centre for the History of Cinema and Popular Culture, University of Exeter

BMPR: British Museum Print Room, London.

GCVP: Garrick Club Vauxhall Portfolio. Further numbers refer relevant page.

GFC: Guildhall Fillinham Collection, Theatre Bills, Songs and Cuttings. Further letters and numbers refer to location identification.

GLPR: Guildhall Library Print Room, London.

V&A: Victoria and Albert Museum, London.

VGA: Vauxhall Garden Archive, 1660-1859, Adam Matthews Publication.

Identification is 'VGA' followed by relevant fiche number. Where the clipping is unidentified I provide an in-text citation to the relevant fiche reference.

Introduction

During long periods of history, the mode of human sense perception changes with humanity's entire mode of existence. The manner in which human sense perception is organized, the medium in which it is accomplished, is determined not only by nature but by historical circumstances as well. (Benjamin 222)

My thesis argues that the organization and, crucially, the 'medium' of human sensory perception underwent a significant process of re-adjustment between the 1780s and 1840s through cultural practices of illumination. I propose that towards the end of the eighteenth century changes in both natural and artificial light, and therefore also darkness, became acutely palpable to the human sensorium—using, seeing, feeling and being in light became matters of intense personal and cultural concern. British society's changing relationship to the environment, resulting from the pressures and opportunities afforded by the industrial revolution, were negotiated at both micro and macro levels—from the minutiae of everyday domesticity to the grand aesthetic drama of Romanticism. Fresh cultural patterns of attention, affects and values associated with qualities of illumination were shaped by a range of desires for, and resistances to, the production of commodities, environments and experiences. Attitudes about taste and morality were exercised through an ability to make nuanced aesthetic judgements about, for example, whether one's domestic possessions produced reflections which positively gleamed or negatively glared. At a collective and individual level, desires were aroused and charismatically drawn towards fresh encounters with natural and artificial light in a kind of aesthetic (rather than biological) phototropism. From the

commodification of lampshades and window curtains, to the popularity of illuminated pleasure gardens, unprecedented quantities of light operated at the level of both function and fashion. These practices were only possible through the acquisition of perceptual skills cultivated in a climate of heightened sensitivity to illumination, which correspondingly demanded new levels of co-operation and reciprocity between humans and their built environment. The overarching argument of my thesis is that light was put to work as the pre-eminent medium through which perceptual consciousness explored and expressed the major experiential shifts of early nineteenth-century culture.

Towards the end of the eighteenth century and into the first half of the nineteenth much attention at home and abroad was focused on the identity of London and Londoners as the capital and many of its inhabitants grew in terms of unprecedented international wealth, confidence and influence (Fox). London's bright new identity shone out semantically and materially for all to see. Before introducing my chapters, consisting of four case studies into the aesthetics of urban illumination, I therefore situate my material within the context of this distinctly new and vibrant urban culture which was broadly fascinated by the scintillating effects of new sources of light and attendant equipment. Therefore, much of my thesis focuses on material examples and accounts of embodied experiences produced by the pressures and pleasures of London life. Crucially for my argument a large number of these artefacts and articulations possessed properties literally and metaphorically associated with qualities of illumination. Yet many of the objects and activities I trace such as the genteel pursuit of transparent painting were also practised beyond the capital. The appeal of light also moved between

the spheres of popular and high culture and was not limited to the fields of art and entertainment but rather permeated the broader culture of everyday life. For this reason my work exceeds the boundaries of visual culture and addresses wider phenomenological experiences of light in everyday practices. In the introduction I highlight influential examples of lighting techniques used in metropolitan entertainments and exhibitions to demonstrate two points; firstly, the ubiquitous appeal of illuminations; secondly, how my choice of material and my approach differs from the discrete, discipline-specific histories of existing scholarship. I move on to explain how my methodological position draws upon recent work in three cognate areas; firstly, the intellectual genealogy of sensory knowledge; secondly, developments in the historicization of sensory experience; and thirdly, enactive theories of perceptual cognition. Recent critical scholarship in these areas offers new insights into the perceptual patterns and preoccupations with illumination. I conclude the introduction with a brief, chapter by chapter, outline of the thesis.

The temporal scope of my research is framed by two major technical and aesthetic developments in practices of visuality and illumination, marking it out as a perceptually distinct period. Each of the case studies open in the 1780s, a decade in which night-time spaces and activities were gradually but irrevocably transformed through the invention in 1780 of the Argand oil lamp by the Swiss scientist, Aimé Argand. Approximately sixty years later the case studies draw to a close when another apparatus of light, the camera, initiated a new epoch in visual representation, perceptions of space and subjectivity. Although immeasurably significant, photography is not a concern of this thesis; rather, I am interested in the time before photography, when an aesthetics of illumination was less about fixing

light and more about encouraging and enjoying the fluidity of light, and, by extension, the fluidity of consciousness itself.

As the eighteenth century drew to a close, commerce, technology and industry opened up new horizons of perceptual awareness. Yet the new possibilities of experience were not just determined by imperialist explorations of vast unknown spaces and distant horizons, but were also defined by shifts in relationships to immediate and close-at-hand environments. Homes, streets, theatres, public meeting rooms and places of business were increasingly transformed and subtly de-familiarized by new forms of lighting. The Europe-wide commercial success of the brighter and more efficient Argand lamp, which burnt at least six times more intensely than a single candle flame, was followed by further revolutions in lighting in 1798, when William Murdoch installed coal gas lighting at his factory in Birmingham (O'Dea). Increasingly gas and oil lighting co-existed as gas came to be used for street lighting (1807), shops (1810) and theatre lighting (1817) (Rees). By the middle decades of the nineteenth century gas lighting was also beginning to be used in domestic spaces. Qualities and intensities of light could now be manipulated to a greater degree than ever before.

The industrial revolution acted upon environments to create new experiences of artificial light and darkness, but in a manner which also impinged on and complicated ideas of natural light and darkness. As Dana Arnold notes, one negative consequence of the increase in night-time illumination was the darkening of the urban atmosphere during daylight hours (*Representing the Metropolis* 32). Intensive use of gas lighting coupled with coal fires initiated the onset of severe urban airborne pollution as greater illumination at night was achieved at the cost of

a reduction in the amount and quality of available daylight. Debates over smoke abatement were taken up by various political, economic and social interests, and it is thus no coincidence that the human impact upon air quality was also accompanied by increased attention to natural atmospheric conditions. The way that the concern with the quality and experience of light pervaded different fields of enquiry during these early decades of the century is evident in the work of Jean-Baptiste Lamarck and Luke Howard, which led to the emergence of meteorology as a systematized and scientifically validated practice of climatic knowledge, one which required a specialized vocabulary with which to observe, analyse, and document weather. Attending to the effects of sunlight interacting with clouds, rain and wind resulted in a new set of skills with which to anticipate climatic activity, interpret the environment and locate an environmental perspective on subjectivity.

The connection between atmospheric observation and subjectivity went well beyond the parameters of scientific inquiry to incorporate new forms of aesthetic expression. Nature was viewed through the introduction of the literary and aesthetic discursive frameworks of the Picturesque and the Sublime in which lighting effects were identified as a central constituent in the representation of the landscaped environment. John Constable's cloud studies, William Wordsworth's enchantment with the qualities of daybreak in poems such as *Upon Westminster Bridge* (1802), J.M.W. Turner's endeavours to translate into paint the experience of seeing light, Novalis's fascination with the transition from twilight into moonlight and Johann Wolfgang von Goethe's sensory studies of light and colour all belong to this widespread appropriation and idealization of natural light as an externalised projection of interiority. Equally, the popularity of the Gothic stemmed, in part, from

its exploitation of dramatic extremes of light and darkness, which were used to evoke heightened states of psychological intensity. These are all aspects of the period that are relatively well-known and which have been written about by scholars at length; however, my thesis argues that, in addition to the period's interest in Romantic aesthetics and its scientific investigation into environmental lighting conditions, the historicization of natural and artificial illumination should also include less well-known material which offers alternatives to the interpretative paradigms of Romanticized and rationalized light. These alternative readings spring from the everyday material fabric and activities of increasingly urbanized lives which were drawn to rapidly expanding cities such as London, Birmingham and Manchester.

To date, nineteenth-century histories of light and histories of vision have received a reasonable but not extensive amount of academic interest. Wolfgang Schivelbusch's *Disenchanted Night: The Industrialization of Light in the Nineteenth Century* (1988) was the first major study into the period's artificial lighting. Schivelbusch works chronologically through the entire century, building up a teleological argument around the inevitability of artificial lighting's progress and improvement. To avoid teleology I restrict my analysis to four parallel case studies in the years between 1780 and 1840: domestic transparent painting; effects of illumination within the middle-class drawing room; the architectural practice of top-lighting and illuminations of pleasure gardens. Like Schivelbusch, I too consider public spaces, (the pleasure garden rather than the theatre) and I also explore the importance of the drawing room. However, in contrast to Schivelbusch's broad European scope my case studies are all predominantly situated within London, the

city which was first to implement and drive the popularization of artificial lighting technologies. By limiting my timeframe and deepening my focus I offer a phenomenological analysis of the period and the places that were pivotal in the formation of lighting practices. Unlike Schivelbusch, I also study attitudes towards and uses of ‘natural’ daylight and assert that it is equally important to recognise and analyse how perceptual experiences of daylight changed during this period.

The history of light has also been approached from a scientific rather than social angle with a dual emphasis given to a philosophical and physiological understanding of optics. Although it is not the aim of this thesis to directly contribute to such theories because it addresses histories of everyday perceptual experiences rather intellectual histories of light, it is nevertheless worth acknowledging the existence of such discourses. Of particular interest in this field is David Lindberg and Geoffrey Cantor’s *The Discourse of Light from the Middle Ages to Enlightenment* which explores the development of and intertwined relationship between material and spiritual languages of light.¹ In *Optics: The Science of Vision* Vasco Ronchi provides a scientific history of optical theory with a particularly useful account of the seventeenth-century foundations of optical science. For an insight into the crossover between optical science and popular entertainment, Barbara Maria Stafford’s *Devices of Wonder: From the World in a Box to Imagines on a Screen* offers a comprehensive overview into the material culture of optical theories.

In the field of Visual Studies Jonathan Crary’s, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* stands out as a particularly

¹ See also Lindberg’s *Theories of Vision from Al-Kindi to Kepler*.

valuable contribution to the history of light due to Crary's re-periodization of the formation of modern subjectivity. He proposes that the onset of modernized visuality occurred in the 1820s and 1830s, focusing on scientific investigations into physiological optics. Crary's move away from the study of representation and towards a historicized theory of embodied visuality has been extremely influential; nonetheless, several critics (see W.J.T. Mitchell's *Picture Theory*) have taken issue with Crary's premise that early nineteenth-century scientific research was responsible for what he believes amounted to the systematic codification and regulation of the modern observer (6) and the fragmentation of sensory apprehension (67). Crary adopts a top-down Foucauldian interpretation of subjectivity informed by science and moulded through the powerful domination of social institutions, discourses and practices of capitalism. If this theoretical model were to be applied to the case studies in my thesis the material would be rendered silent and unresponsive because Crary's approach denies any possibility for individual and collective agency in everyday life. To animate the material of my case studies I work from the bottom up at the level of daily experience, popular pastimes and interactions with quotidian objects. In contrast to the isolated site of the laboratory my thesis investigates a series of lived spaces—spaces of social intimacy, spaces of elite and middle-class aesthetic consumption, and spaces of crowded, popular entertainment—which all present compelling cases for a need to revise our assessment of what it meant to dwell in the capital of the world's first industrial nation. Attention to these everyday areas of existence results in a different construction of perceptual history, one in which there is room to also tell a story of individual agency, pleasure, play and interaction between, rather than

separation of, the senses. In my version of early nineteenth-century history there is a temporary opening out rather than closing down of perceptual possibilities. I argue that for a period of approximately sixty years the nascent conditions of industrial society created fertile grounds for experimentation with multi-sensory experiences, and that it was only towards the middle of the century that pressures to standardize and regulate perceptual experience really began to take hold.

Chris Otter's recent book, *The Victorian Eye: A Political History of Light and Vision in Britain, 1800-1910* (2008), offers a fresh alternative to the Foucauldian framing that informs Crary's work. For Otter, the political history of light and vision in the nineteenth century needs to be understood in the context of liberalism, with the result that greater weight is given to the self-determining capacity of the individual within society than Crary ever allows. Otter claims that 'the multiple, superimposed vision networks of nineteenth-century Britain can be seen as broadly liberal, in that they were invariably designed with certain aspects of human freedom in mind' (258). Invoking Foucault's famous interpretation of Jeremy Bentham's design for a panopticon, Otter goes on to say that gas meters for lighting did *not* turn the home into a 'coin-operated panopticon, after all, and individuals were free to use illumination in manifold private or oligoptic ways' (263).² However, missing from Otter's political history of liberalism and light is an assessment of the extent to which notions of freedom or agency were bound up in a new aesthetics of illumination.

² Otter is borrowing from Latour's neologism 'oligoptica' which he has taken from the Greek 'Oligos' to see a little, so it becomes a mode of seeing a little bit of the whole.

One expression of the way that a metropolitan aesthetics of light contributed to the formation of modern, urban subjectivity was the popularity of lighting-based entertainments. Significant lighting styles in visual entertainment and spectacular performance between 1780 and 1840 are concentrated expressions of more general patterns of fascination with the treatment of light, particularly the interest in heightened contrasts in lighting, transparency, iridescence, luminosity, reflection and refraction. The remarkable power of these lighting effects to enchant audiences during this period is illustrated by the eidophusikon, phantasmagoria and diorama, all of which were new, popular shows. Although their individual histories have received some scholarly attention, the direction of this work has only emphasized a cultural passivity towards the appeal of light; for example, histories of the magic lantern invariably present the manipulation of light as simply a technological means to a representational end (Mannoni; Crangle et al; Herbert; Hecht). These histories of individual media present a limited and unbalanced interpretation of the period's capacity for perceptual engagement with illumination and fail to locate the underlying sensory connections between these primary materials within a broader historical paradigm of perceptual experience. New perspectives to our understanding of the period emerge from case studies in this thesis because they move away from established interpretations of passive spectator pleasure and into less well-investigated territories where there is compelling and unexpected evidence of a playful interaction with the newly lit urban environment. I claim that early nineteenth-century cultural practices of illumination produced greater perceptual flexibility between self and society in

which categories such as spectator / spectacle, elite / popular, and public / private were not rigidly fixed.

A key instance of the preoccupation with illumination in popular entertainment is found in the work of Philippe de Loutherbourg, who was both a painter and theatre set designer. De Loutherbourg's belief in the public's appetite for spectacles of light, coupled with his artistic and financial commitment to the dramatic potential of lighting inspired his theatrical innovation of 1781, the eidophusikon (Allen; Baugh) (see fig. 0.1). De Loutherbourg constructed a small, purpose built set (2m x 3m x 1m) in a room accommodating upwards of one hundred audience members. Devoid of human actors, the star of de Loutherbourg's shows was a series of choreographed scenes of natural lighting effects. The practitioner and historian of sceneography, Christopher Baugh has highlighted de Loutherbourg's contribution to the emergence of sceneography as a recognised theatrical practice and Baugh stresses that these new techniques 'indicated a clear function for the audience: a neutral, observing passivity, with an invitation to retain an anonymous distance - not to engage physically with the act of performance, for fear of breaking the illusion' ("Technology-Driven Entertainment and Spectacle" 266). Baugh's argument demonstrates how, towards the end of the eighteenth century, qualities of lighting were being used to alter the relationship between audience and performance. Yet his analysis of audience/performance dynamics remains tied to the discipline of theatre history, foreclosing broader social implications generated by connections between practices of illumination, perceiver and environment. The fact that Thomas Gainsborough attended de Loutherbourg's performances and was so impressed and intrigued with the eidophusikon that he

built a miniature version for his own personal use and experimentation, demonstrates the extent to which transparent effects circulated across different cultural fields (see fig. 0.2, and for further discussion see Mayne; Bermingham, *Sensation and Sensibility*; Terpak). The scope of the circulation between high and popular culture, and across different disciplines, has yet to be fully mapped, and forms a key argument in my thesis—that the perceptual preoccupation with illumination flowed throughout different cultural arenas.

At the beginning of the century the entertainment value of stylized lighting effects continued to be highly desirable appearing as central components in numerous other entertainment formats. In 1801 the phantasmagoria, a theatrical show representing gothic themes and using a combination of moving magic lantern projections, darkness, actors, smoke and transparent screens arrived from the continent and proved highly popular with both London and provincial audiences (see fig. 0.3). According to William Nicholson's 1802 eyewitness report, after the curtain was drawn up, 'a cave or place exhibiting skeletons and other figures of terror, in relief, and painted on the sides or walls became visible. When the audience were in total darkness the screen was lowered unknown to them and the performance began with thunder and lightning...' (qtd. in Hecht 114). Laurent Mannoni has located the phantasmagoria as one episode in a long history of light projections starting in the sixteenth century (136). Yet at no point in his critical history—now seen as the standard work on 'pre-cinema'—does Mannoni consider other uses of transparent imagery such as domestic transparent painting or illuminated street and pleasure garden entertainments. However, his account of

apparatus, techniques, and practitioners does provide an invaluable demonstration of the rich diversity of visual practices extending across a long timeframe.

A further successful continental import devoted to the staging of transparent lighting effects, and which typifies the fascination with illumination demonstrated by this thesis, was Louis Daguerre's new entertainment, the diorama. In 1823 Daguerre opened a purpose built venue in Regent's Park, London, in which audiences sat in a darkened, slowly rotating auditorium and watched a series of large (21m x 13m) painted back-lit landscapes pass in front of them. A combination of natural top-lighting and artificial light was manipulated through a hidden arrangement of transparent canvas and gauze screens to produce transforming effects of atmospheric illumination. Day turned to night in settings such as ruined gothic interiors and dramatic storms, fogs and snowscapes (see fig. 0.4). The thematic and conceptual correspondences between the diorama and the elite sphere of Romantic literary and aesthetic cultural production have been studied by both William Galperin and Sophie Thomas.³ Yet the popularity of similar effects of transparency produced within the domestic and amateur space of the home has received very little attention.

My final example of another public entertainment to emerge during this period which employed new modes of lighting technology for effects of transparency was the illustrated lecture. No significant or sustained scholarly attention has been paid to the aesthetic and perceptual function of the images which supported the verbal script of the lecturer's performance, but Simon During

³ The biographical history of Daguerre's professional career has been established by Gernshiem & Gernsheim, coupled with Altick's chapter on the diorama in *The Shows of London* (163).

has sketched out a number of late eighteenth and early nineteenth-century examples. He details how showmen such as Gustavus Katterfelto gave performances using the solar microscope, a device which projected magnified images of microscopic matter onto large screens. Particularly popular between the 1780s and 1820s was the eidouranion (or staged lecture of the transparent orrery) accompanied by large transparent paintings and performed in theatres like the Lyceum and English Opera House by showmen such as Adam Walker (see fig. 0.5). During, these transparent images only appear as backdrops to his main aim of tracing the cultural history of secular or natural magic and its associated spectacles. The genre of illuminated scientific entertainments was also present in private as well as public spaces. The manufacture of magic lanterns for domestic shows proved to be a hugely popular and enduring family activity throughout the nineteenth century. Another equally popular piece of visual apparatus which harnessed and altered the behaviour of light was the transformation of Sir David Brewster's 1817 scientific invention of the Kaleidoscope into an optical toy.⁴

These instances of popular entertainment relied upon and were part of a new perceptual fascination with transparent effects of illumination. They were also all pre-determined entertainments requiring a seated, contained and relatively static, passive audience, where vision and sound were the primary sensory experiences. In fact, as hinted at by Baugh, the staging of the performances occurred in discrete, specialized venues, somewhat removed from the everyday flow of urban existence where lighting conditions could be efficiently regulated by

⁴ The pleasures of projected and patterned lights were accompanied by spinning and flickering images generated by the thaumotrope and zoetrope which whilst not toys of illumination, nevertheless indicate daily desires to playfully control rather than be controlled.

the performer, rather than the spectator. Furthermore, the public roles of performer and spectator were unequivocally separate. However, these more passive entertainments and their historiographies are only one chapter in a much wider story of the early nineteenth-century's cultural history. I am interested in lighting practices that co-existed with the various theatrical and performative attractions already mentioned, but were distinctive from them because of the blurred boundary between spectator and performer, and the degree to which individual agency, perceptual intentionality and openness to aesthetic contingency were all determining features in the particular experiences of light.

The performance of light in these less well studied areas of everyday objects, acts and spaces of my case studies indicates that qualities of illumination were affective at a much deeper level of cultural consciousness than has previously been recognised. Previous scholarship has tended to separate out enquiries into natural and artificial lighting, with scientific and technological histories focused on artificial lighting, and histories of visuality focused on Romantic aesthetics of natural light. In contrast, my research project integrates rather than divides natural and artificial lighting modes, thereby recuperating the continuity of urban temporal experience and reuniting themes of the imagination, subjectivity, technology, commercialisation and morality. What distinguishes these activities of lighting within homes, top-lit buildings and pleasure gardens is the degree to which a subject's experience was determined by an intentional, physical and historically specific interaction with light, rather than just a passive and unchanging perception of light. Encounters with light in this period were defined by more than the sensation of sight; vision was accompanied by senses of touch,

movement and spatial awareness as people went about their daily activities, promenaded around pleasure gardens or moved through spaces of aesthetic exhibition. These lighting practices were significant due to the pleasurable, playful and experimental nature of the non-narrative, open-ended and spontaneous experiences in which the role of the performer and spectator merged to produce subjects alert to new opportunities of sensory knowledge and sensitive to the aesthetic conditions of their surroundings. Therefore, the phrase, 'light touches', from the thesis title aims to serve a dual role; firstly, to emphasize that because perception is a ceaselessly flowing process rather than a permanent or fixed thing, material evidence of perceptual experience is often also ephemeral and impermanent, much like light itself, leaving a delicate trace rather than a deep impression upon the terrain of cultural history; secondly, by indicating that a sensory permeability existed in acts of illumination which encompassed both a visual and bodily awareness of light's presence or absence. Consequently I take the study of light to include light's relative qualities of darkness, shade and contrast, in addition to the apprehension of space and surface texture. Like Catherine Vasseleu, I understand practices of illumination to concern more than just the sense of sight because light 'implicates touch in vision in ways that challenge the traditional differentiation of these senses within the sensible/intelligible binarism of photology' (12).

Developing an interpretative sensitivity to the material of the case studies and allowing counter narratives to emerge which complicate the dominant story of an urban society dazzled and controlled by the spectacle of capitalist modernity (of the kind envisaged by Guy Debord), has required a methodological approach

which takes into account three theoretical positions: firstly, intellectual histories of sensory knowledge; secondly, studies in the historicization of sensation; and thirdly, recent critical developments in theories of subjectivity which recognize the active role of perception. The first strand of the perspective outlined above is informed by a long intellectual history of empiricism in which the body's response to the environment is valued as foundational to the production of knowledge. This tradition of empirical philosophy is shaped by a series of conceptual milestones beginning with Aristotle's identification and hierarchical organization of the five senses in *De Anima* which provided one of the earliest attempts to systematically assess the intelligibility of sensory experience. Thomas Hobbes (1588-1676) pursued this line of argument claiming in the *Leviathan* that, 'there is no conception in a man's mind which hath not at first, totally or by parts been begotten upon the organs of sense' (2). John Locke's (1632-1704) statement from *An Essay Concerning Human Understanding* that 'nothing can be in the intellect which was not first in the senses' (332) serves as a further marker in the development of discourses committed to the validity of experiential knowledge. These experiential and materialist philosophical principles were repeatedly challenged by rationalist counter arguments with perhaps the most philosophically forceful opposition articulated in the work of René Descartes who maintained that notions of selfhood are legitimated only through mental activity not bodily sensations. Nevertheless, in the eighteenth century the Lockean tradition of empirical sensationism was furthered through the work of David Hume and, on the continent, Étienne Bonnot de Condillac. Later in the century Maine de Biran took sensationism in a new direction proposing the existence of a more directed, willing and attentive mode of

perceptual awareness (Hallie 36). Explicit and positive reference to a new respect for bodily sensuality was voiced by Ludwig Andreas von Feuerbach in *Principles of the Philosophy of the Future* (1843) in which he declared, 'I am a real, sensuous being and indeed, the body in its totality is my ego, my essence itself' (54). This emerging sense of self described here by Feuerbach forms the cultural and philosophical ground in which my thesis is rooted.

Feuerbach's move away from 'the thin conceptual knowledge accessible to the abstract self consciousness of Hegel or Brauer' (Moggach 87) was fleshed out further in the early humanist work of Karl Marx. The origins of the second genealogical strand of research into historicized sensation appear in *The Economic and Philosophic Manuscripts* where Marx recognises the importance of sensory experience, 'man is affirmed in the objective world not only in the act of thinking, but with *all* his senses (108)', he then goes on to assert that these experiences are formed through the movement of history:

Only through the objectively unfolded richness of man's essential being is the richness of subjective human sensibility (a musical ear, an eye for beauty of form—in short, senses capable of human gratification, senses affirming themselves as essential powers of man) either cultivated or brought into being. For not only the five senses but also the so-called mental senses—the practical senses (will, love etc.)—in a word, human sense—the human nature of the senses—comes to be by virtue of its object, by virtue of humanized nature. The forming of the five senses is a labor of the entire history of the world down to the present. (40-1)

Our sensory interpretation of the world is not natural, pre-given or predictable, but is rather a contingent, and fluctuating process of responsive adaptation to the world. In addition to this historicization of the senses, Marx also rewrites the five

sense Aristotelian system by expanding the model to include perceptions of emotion and cognition. Finally he animates the relationship between human and the natural environment by describing a dynamic of 'humanized nature' thereby incorporating the concept of nature into the historical process in a manner akin to the recently developing field of eco-criticism (Rueckert; Williams; Buell).

Through the influence of Marx, the previous tranche of philosophical work committed to an investigation into the acquisition of knowledge through the senses broadened in the early twentieth century to include new disciplinary areas. Lucien Febvre, co-founder of the Annales School of history, proposed a new history of ideas, one that was embedded and to a certain extent embodied in distinct historical contexts. By re-working Lévy-Bruhl's idea of primitive mentality Febvre proposed that the historian should 'install himself at the intersection where all influences criss-cross and melt into one another: in the *conscienceness [sic]* of *men living in society*. There he will grasp the actions, the reactions, and will measure the effects of the material or moral forces that exert themselves over each generation' (qtd. by Burguiere 430-431).

Febvre's model of historical mentality was followed by the creation of an increasingly rich language of concepts concerned with bodily histories. The sociologist Marcel Mauss introduced the notion of habitus (73), a set of acquired dispositions or traits which included, what Mauss termed 'techniques of the body' described as 'the ways in which from society to society men know how to use their bodies' (70). Mauss uses examples of swimming, digging, marching and observes that 'in all these elements of the art of using the human body, the facts of education were dominant' (73). However, because Mauss theorized that the habitus was

'assembled by and for social authority' (85) through actions of aspirational imitation his concept of bodily techniques excludes the possibility of individual agency. A fellow sociologist, Norbert Elias, developed the habitus model through his highly influential work, *The Civilizing Process*, in which he charted the transformation of European morals and manners from the late middle ages. According to Elias physical adherence to principles of etiquette, notions of cleanliness and bodily posture all belonged to an individual's internalization of acceptable standards of social behaviour, through which cultural distinctions of hierarchy were reinforced.

In addition to the disciplines of history and sociology, art historians also recognized the hermeneutical potential of the habitus model. In 1951 Erwin Panofsky used the phrase 'mental habits' to account for a 'palpable and hardly accidental concurrence' between the style of gothic architecture and the intellectual practice of scholasticism (2). Two decades later the sensory and aesthetic implications of habitus were investigated by another art historian, Michael Baxandall, who in *Painting and Experience in Fifteenth Century Italy* proposed the idea of the 'period eye' which he describes thus, 'some of the mental equipment a man orders his visual experience with is variable, and much of this variable equipment is culturally relative, in the sense of being determined by society which has influenced his experience' (40). Informed by Panofsky's work and sharing an intellectual affinity with Baxandall was the sociologist, Pierre Bourdieu whose study, *Distinction: A Social Critique of the Judgment of Taste*, proved to be a major influence both within and beyond the discipline of sociology. Bourdieu's version of habitus highlighted the power of aesthetic taste which he claimed operated as a form of cultural value or capital.

The social role of the body in the formation of identity was also of central importance to both the historical and philosophical work of Michel Foucault. For Foucault the experience of embodiment was structured through institutionalized regimes of training, regulation and discipline which produced in subjects a state of governable docility. According to Foucault, much of this bio-political power dynamic was exerted through strategies of sensory control: the famous exemplar being Bentham's panopticon prison model of domineering, persistent and ultimately internalized visual surveillance. The magnitude of Foucault's influence upon subsequent generations of scholars can be felt across a wide range disciplines. Yet, as illustrated by the austerity of Crary's modernist vision, sometimes this influence needs to be recalibrated to allow for the possibility of partially self-directed subjecthood rather than just subjection.

Alternative phenomenological models of sensory experience began to emerge in the 1960s. For example the literary critic, Marshall McLuhan, suggested that sensory development is balanced according to historical and cultural contexts and that different sensory ratios can therefore be identified over time. In particular McLuhan believed that the move from oral, to print, to electronic technologies of communication produced alterations in the relative dominance of senses to each other. Four years after McLuhan's literary periodization of the senses the disciplines of anthropology and social psychology began to take the first steps towards what has since been referred to as the 'sensual turn' (Howes *Sensual Relations* 29). Mallory Wober's term 'sensotype' bears a strikingly similar logic to McLuhan's, which Wober uses to explain:

a pattern of relative importance of the different senses, by which a child learns to perceive the world and in which pattern he develops his abilities. These patterns may be predominantly visual in one culture, while in another culture, auditory or proprioceptive may have a much higher relative importance. (181)

Towards the end of the twentieth century the critical momentum of the ‘sensual turn’ gathered pace. In 1986 the phrase ‘cultural anthropology of the senses’ was coined by Roy Porter in the preface to Alain Corbin’s sensory micro-history *The Foul and the Fragrant: Odor and the French Social Imagination*. Anthropologists embraced Corbin’s attention to the relativity of sensory experience and proceeded to explore the potential of a sensory epistemology within anthropological and ethnographic case studies. Leaders in this field were David Howes (*The Varieties of Sensory Experience*; *Sensual Relations*; *Empire of the Senses*), Constance Classen (*Worlds of Sense: Exploring the Senses in History and Across Cultures*) and Paul Stoller (*The Sensuous Scholar*) who all consider the senses to be crucial when trying to gain an understanding of how people interact with each other and their environment. Following the anthropologists’ lead geographers also came to recognise the significance of embodied experience in the study of human geography. Of particular interest here is the work of Paul Rodaway whose book *Sensuous Geographies: Body, Sense and Place* combines a postmodernist approach to an argument that sensory experience is a fundamental component of geographical knowledge. In addition Mark Paterson’s *The Senses of Touch: Haptics, Affects and Technologies* argues that touch, just as much as sight, accounts for our understanding of the world.

The impact of these studies has been felt beyond the disciplinary boundaries of anthropology and geography. In the last decade the field of nineteenth-century cultural and literary history has responded to the new intellectual opportunities offered by the practice of sensory history and produced works such as John Picker's *Victorian Soundscapes* and Leah Price and Pamela Thruswell's research into the phenomenology of reading and writing practices in *Literary Secretaries / Secretarial Culture*. These studies have been complemented by more comprehensive overarching purviews of sensory history undertaken by scholars such as Donald Lowe (*History of Bourgeois Perception*), Robert Jütte's ambitiously scoped *A History of the Senses: From Antiquity to Cyberspace* and Mark M. Smith's *Sensory History*.

Charting the new interest in perception from disciplines such as history, literature, sociology, anthropology and art history should not eclipse awareness of a parallel and evolving philosophical preoccupation with the subject of perception. The phenomenological work of Edmund Husserl, Martin Heidegger and Maurice Merleau-Ponty is of central importance to ongoing debates surrounding the primacy of perception in subject formation. On the cusp of the twentieth century Husserl published *Logical Investigations*, which aimed to study and describe the experience of consciousness. Husserl maintained that consciousness is always intentional and always directed towards the world. As a junior colleague of Husserl at the University of Freiberg, Heidegger's work into the ontology of being was undoubtedly influenced by the work of the older philosopher. But whereas Husserl was concerned with reducing experiences to transcendental essences, Heidegger believed that the act of being must be grounded within the world if a

comprehension of existence is to be achieved. Therefore, in *Being and Time*, Heidegger's major contribution to phenomenology, he produced 'a study of everyday Being-in-the-world' (94). Like Husserl, Merleau-Ponty also recognised that 'all consciousness is consciousness of something' (6), and like Heidegger, he was interested in worldly experience. However, Merleau-Ponty focused upon the corporeality of experience more intensively than any other previous philosopher and theorised that 'the world is not what I think, but what I live through' (xviii), therefore through our actively and openly perceiving bodies we come to know the world.

Merleau-Ponty's model of perception as active rather than passive had implications beyond the orbit of philosophical inquiry and resonated with those in the scientific community who were keen to challenge theories of computational cognitivism whereby the brain was interpreted as the higher and active component in the processing of passive sensory stimuli. An early challenger and pioneer in scientific theories of active perception was the visual psychologist, James Gibson (*The Senses Considered as Perceptual Systems*; "The Theory of Affordances"), whose concepts of 'affordance' and the 'ecology of light' I will have recourse to address in greater detail at a later point in the thesis. Gibson's work has proved to be foundational in the development of enactive cognitive science presented in works such as *The Embodied Mind* by Varela et al and Alva Noë's *Action in Perception*. Gibson's influence is also present in interdisciplinary work such as Peter Galison's *Picturing science, Producing Art* and Barbara Maria Stafford's most recent research *Echo Objects: The Cognitive Work of Images*, which works between art history and the neurosciences.

The recent scientific interpretation of perception as an active component in the formation of human subjects provides additional weight to work within the humanities, which is interested in the extent to which individual agents can exert influence or leverage within social structures. Here the cultural studies of Michel de Certeau and Bruno Latour's sociological contributions to the field of science and technology studies are particularly relevant. De Certeau's *The Practice of Everyday Life* provides a set of conceptual tools with which to tackle previously overlooked dimensions of cultural behaviour. De Certeau uses the terms 'strategy' and 'strategic' to define dominant, enduring social structures, institutions and discourses which possess and reproduce authority. However, he argues that operating within these permanent and powerful systems are instances of, what he identifies as, 'tactics' or 'tactical' acts which are contingent and transient moments when individuals negotiate, appropriate and adapt social systems into their lives. Using the work of de Certeau I argue that evidence of tactical activity appears again and again in the perceptual traces left by the material of my work on illumination, in spite of the fact that these domestic moments of playing with light are dwarfed by strategic imperatives to record top-down versions of epoch-defining 'historical events.'

Issues of agency and patterns of relations are also the focus of Latour's Actor-Network-Theory, which seeks to question the very nature of what it means to be social and expands the concept to include relations between human and non-human agents. In so doing Latour (like Gibson) reads intentionality into environmental conditions as well as human actions thereby unsettling an androcentric vision of the world. Latour explains:

ANT is not the empty claim that objects do things 'instead' of human actors: it simply says that no science of the social can even begin if the question of who and what participates in the action is not first of all thoroughly explored, even though it might mean letting elements in which, for lack of a better term, we would call *non-humans*. (72)

The role of perception becomes increasingly important in light of reinterpretations about passive and active sensory intelligence, dynamics between the individual and collective, plus human and non-human agents. Following Latour's lead I suggest that in addition to human agency, particular qualities of surface reflectance, or densities of darkness also have the capacity to be social, to connect, transform and mediate with other human and non-human members of society (40).

The degree to which sensory epistemologies have now been absorbed into the work of cultural history is best illustrated through the cultural phenomenology of Steven Connor and Isobel Armstrong. For Connor the practice of cultural phenomenology is generated through a poetic and philosophical sensitivity to the intersubjective dynamic of culture and its material substance. His studies into evasive phenomena such as air, smoke and gas resonate with my own interest in the similarly evanescent quality of light. Equally, when in an early essay on her long-term project on glass, Armstrong writes, 'I am thinking of culture working upon a material: as consciousness works upon the world (133 "Transparency") she stakes her claim to similar conceptual ground as Connor. Her commitment to recognizing thinking as material consciousness is developed at length in her recent monograph, *Victorian Glassworlds*, in which she provides an inspiringly nuanced interpretation of the semiotic and material significance of glass within Victorian

culture. Clearly there is an affinity between Armstrong's concerns and my own; the materiality of glass is, after all, intimately connected with the immateriality of light. However, whereas Armstrong's story begins in 1830 and argues that the onset of mass-produced glass resulted in an overly scopic culture, I tell a different, earlier story of the time just before light and glass formed their ubiquitous partnership. The pre-Victorian fascination with effects of illumination was achieved through a wider and more balanced range of contact between material and light; light was not touched by glass alone. Thus, to use McLuhan's concept of sense-ratio, or Wober's sensotype, pre-Victorian culture was less scopic because, as I argue in my case studies, there was a desire to perceive light haptically as well as visually.

If a shift in perception occurred from a pre-Victorian multi-sensory experience of light into a Victorian emphasis on a scopic understanding of light we must therefore interpret perception as a selective, contingent and impermanent process. Moreover, in many ways perception conceals as much as it reveals given that the subject cannot perceive everything; she must choose or be persuaded what to apprehend and what to ignore. Some experiences or understandings of the world are thus inevitably silenced. In this way perception is about paying (or not paying) attention and consequently implies a sense of value and exchange; something is worth paying attention to and one therefore invests one's attention in order to acquire a particular perceptual experience. For the cultural historian, the significance of these conditional states of perception lies in the fact that they possess variable value and are nurtured or aborted through events of negotiation, adaptation and appropriation which result either in consensus or contestation. Identifying and interpreting evidence of agreements or disagreements about

faculties of apprehension has the potential to give voice to previously unnoticed, unevaluated, faint or lost episodes of subjectivity. The intellectual heritage of sensory knowledge, when combined with sensory histories and theories of perceptual agency, work together to form the methodological foundation upon which four episodes of perceptual history are explored in my thesis. This foundation is partly reflexive, in that the case studies I investigate help to foreground the importance of bodily sensation in contradistinction to interpretations of disembodied experiences of capitalist modernity. In other words, the history of light, and my project on illumination, belongs to the wider philosophical project of reframing the significance of sensory knowledge.

Chapter One investigates the fashion for domestic transparent painting practised by genteel and middle-class ladies. It argues that this new, popular and commercially targeted artistic practice required an attentive, playful and subtle handling of domestic place, bodily position, artistic materials and ambient illumination. I propose that the intrinsic aesthetic experimentation of transparent painting functioned as a mechanism through which an active and exploratory female subjectivity was formed and projected into the changing domestic environment of the drawing room.

Chapter Two, 'Making Sense of the Drawing Room', remains in the same domestic sphere as chapter one and explores how, in addition to the execution and display of transparent paintings, the space's decoration and furnishings continued to interact with both natural and artificial lighting arrangements. I argue that the new, early nineteenth-century fashion for curtains and drapery to frame larger styles of windows was not motivated, as has been previously argued, by a desire

to repel, exclude or demarcate boundaries between public and private spaces (Schivelbusch). Instead chapter two demonstrates the way that light filtering materials such as muslin were used to create an aesthetic dialogue and enhance the possibility of fluid transitions between realms of interior and exterior social activity. There is a revealing correlation between muslin used for windows and in women's fashion, which points to the co-option of light in the construction of gendered identities. I extend this line of argument by suggesting that certain qualities of light were also used to activate markers of taste and social class. Too much transparency, glitter or glare prompted accusations of poor moral and aesthetic judgement.

Chapter Three, 'Patrician and Poetic Top-lighting' is a study of architectural top-lighting that straddles private and public spaces; it presents a different perspective on how daylight was implicated in the formation and reproduction of cultural and aesthetic values. I chart how the once elite and/or religious practice of lighting interior spaces with daylight from roof windows increased in the last decades of the eighteenth century and spread to a range of secular, middle-class venues; public art galleries, institutes of learning, shopping arcades and entertainment sites, which all looked up to the sky rather than out on to the street for illumination. This chapter argues that the allure of a formerly patrician lighting mode should be interpreted as evidence of vigorous interactions and negotiations between established and emergent social identities which by the middle of the century resulted in the institutionalization of aesthetic appreciation.

The final chapter, 'Growing Light in Commercial Pleasure Gardens', balances the earlier chapters' emphasis on daylight within interior spaces and

focuses instead on the popularity of artificial, open air, night-time illuminations. London's Vauxhall Pleasure Gardens and its numerous national and international iterations produced nightly spectacles in which light *and* darkness were the key performers. Large transparent paintings, dark walks, fireworks, garlands of lamps in tree-lined avenues, and rooms adorned with multiple mirrors and eye-catching chandeliers were some of the many illuminated pleasures on offer at Vauxhall. However, I qualify the theatrically spectacular nature of the lighting through demonstrating that the early nineteenth-century shows of light cannot simply be understood as passive, visual experiences but should be read as active and embodied examples of participatory sociability in which collective subjectivities were tested out.

Chapter One

Perceptual Experiments in Light: Transparent Imagery in the Middle-Class Domestic Interior

One of the most popular and prolific acts of lighting manipulation in the early nineteenth century involved a process of transformation where light was directed through the body of an object, turning it from having an appearance of opacity to one of transparency. The process of transformation was primarily an aesthetic rather functional activity and certain substances were more responsive to this visual conversion. Paper, fabric, glass and porcelain were all particularly sensitive to the penetrating passage of light and sight. As light passed through these substances vision also moved between varying perceptions of surface and depth; enabling sight through, behind or beyond the object. Practitioners of painting, drawing and printing were quick to explore and exploit the representational opportunities of transparency afforded by the convergence of new lighting technologies and commodities. Artistic endeavours were focused on achieving impressions of luminosity, brilliancy and translucency. By the end of the eighteenth century the popularity of illuminated transparent imagery permeated numerous private and public spaces. Occupants of elite and emerging middle-class dwellings bought or made certain items because of their capacity to mediate light which resulted in dynamic associations between materials, methods, styles and inventions. Lampshades, firescreens, window blinds, window hangings and handheld optical toys all provided surfaces upon which transparent imagery could be displayed enabling inhabitants to vary the intensity, colour, reflective and

refractive properties of ambient light by intervening in these unfamiliar quantities of domestic light. These domestic performances of light took place alongside the public spectacles of light mentioned in the introduction, such as popular exhibitions, theatres and pleasure gardens.

Another important sub-category of this medium, which bordered the domestic sphere of transparent painting, was the display of transparent images during illuminated street entertainments. Military victories, proclamations of peace, political rallies and royal celebrations were all regularly marked by public festivities in which the darkness of the urban night was transformed into a dramatic temporary show of coloured light. Streets, squares and parks were filled with large crowds who gathered to marvel at public and private buildings decorated with large back-lit paintings, in addition to oil lamps, ornamental gas flares, and windows illuminated with candles. These attractions could be both official and unofficial events, securing funding from royal, government, institutional, commercial and private sources. The varied interests of these bodies were channelled through the aesthetic content of the decorations which provided powerful opportunities for shaping national and regional identities, promoting political affiliations, advertising business concerns, and exploring and experimenting with the expanding terrain of the city. Financial profit and aesthetic pleasure converged through the involvement of artists (such as Benjamin West), architects (such as Soane, Smirke and Pugin), artisans and amateurs who took part in the execution of lighting decorations. For amateurs, these civic events afforded an opportunity to turn the façades of their home into a gallery for the display of domestic transparencies.

The chapter is organised into five sections. Given that transparent painting was practised and displayed in a variety of venues the first section, 'Interpreting the Middle-Class Domestic Interior', addresses the significance of this location upon those who executed and appreciated transparent imagery. I discuss how previous scholars have interpreted the subject of the nineteenth-century domestic interior and why my understanding of the perceptual history of transparent imagery offers a new angle on debates concerned with the relationship of the individual to society; in particular the dynamic between public / private spheres and the corresponding articulation of gender and class identities.

In the section entitled, 'The Materialization of Transparency', the equipment, processes, techniques and materials of transparent imagery are introduced and analysed, thereby clarifying how the use of back-lighting transformed opaque paint into an illuminated representation which set transparent imagery apart from the standard execution of all other eighteenth and nineteenth-century paintings. Through reference to *vues d'optiques*, the eighteenth-century visual pre-cursor to domestic transparencies, I reveal how the nineteenth-century shift in techniques of viewing and representations of space, subjects and lighting effects initiated a heightened reciprocity between light, perception and environment.

The mutually co-constituting elements of light, perception and environment were realized through a widening social participation in the production and aesthetic consumption of transparent imagery. It is for this reason that the pivotal role of publications, premises, activities and the circulating networks of the print trade must be factored into a calculation of transparent imagery's impact upon everyday urban experience. Thus, section three, 'Circulating Networks: Prints,

Publishers and Purchasers' identifies the publishers, Rudolf Ackermann, an entrepreneurial publisher originally from Saxony and Edward Orme, the print seller 'in ordinary' to George III and later George IV, as figures of central importance and influence in the formation and dissemination of this new medium. I pay close attention to the framing and development of the medium through Ackermann's and Orme's publications and focus on the move from professional to amateur production which resulted in the domestication of the medium. Interconnected with this progression was women's involvement with the medium which produced gender defining attributes of femininity, but was also indicative of aesthetic and perceptual agency. In addition to gendered associations, this section also evaluates how transparent imagery articulated cultural registers of taste thereby indicating social class.

The fourth section, 'Situating Transparent Imagery in the Domestic Interior', builds on the analysis of how and who produced transparent imagery in order to consider its exhibition, and in particular the significance of where transparent imagery was encountered. The surfaces and textures of drawing rooms, dining rooms, hall ways and staircases were all potential sites for the display of transparent imagery where moving through, seeing or being seen in coloured, ambient, aestheticized light could be experienced. The psychologist, James Gibson's theories of the 'ecology of light' will be used here to analyse how the embedded, localised manipulation of light in the form of lampshades, fire screens and window blinds supports the proposition that perception is a process sensitive to historical context.

In the fifth section, ‘Playing with light’, I conclude the chapter by assessing transparent imagery’s status as a type of optical toy. I claim that when interpreted through historical and contemporary theories of play, domestic transparent imagery articulated an increased level of perceptual *and* playful engagement with environmental lighting. I discuss how novel aesthetic commodities such as the ‘protean view’, a transparent lithographic print popular during the 1830s and 1840s, created subtly unpredictable, gently ludic pastimes in which a new and fashionable fascination with light was gratified.

In spite of the fact that early nineteenth-century domestic transparent imagery constituted a new and widespread mode of perceptual expression and experience, there has only been one significant piece of research into the subject, John Plunkett’s article “Optical Recreations, Transparencies, and the Invention of the Screen”, in which he argues that transparencies were one of the earliest forms of popular optical recreation ‘and provided the basis for the development of subsequent screen media like the phantasmagoria, cosmorama and diorama’ (176). Plunkett goes on to explain how techniques of (natural and artificial) back-lighting manipulated impressions of surface and depth in an effort to explore ‘notions of virtual space’.⁵ When combined with the apparatus of peepshows and cosmoramas the transparent screens produced further, heightened effects of virtual space. From Plunkett’s research it has become possible to appreciate that transparent imagery functioned at multiple cultural and perceptual levels. I suggest that as well as creating new effects of virtual space, these illuminated images also

⁵ Other works which make more general reference to transparent paintings include Altick, Callaway, Brancion, and Verwiebe.

directly and actively altered spatial perceptions of the immediate environment and what it meant to dwell within it.

What follows in this chapter is therefore, an important contribution to the field of cultural history because it seeks to address this omission. I argue that because transparent imagery made intentional, everyday interventions into the shaping of domestic and urban landscapes generating acts of agency, experimentation, opportunism, embodiment and playfulness, it is necessary to revise previous interpretations of the relationship between the individual and society, expressions of gendered identity and the framing of public/private spaces. I argue that these acts of agency run counter to Crary's interpretations of the historical construction of vision. Crary's use of scientific optical discourses produces an imbalanced impression of modern visuality dominated by a story of industrial fragmentation and capitalist alienation. He maintains that a sensory collaboration between touch and sight was severed in:

a pervasive “separation of the senses” and industrial remapping of the body in the nineteenth century. The loss of touch as a conceptual component of vision meant the unloosening of the eye from the network of referentiality incarnated in tactility and its subjective relation to perceived space. This autonomization of sight, occurring in many different domains, was a historical condition for the rebuilding of an observer fitted for the tasks of “spectacular” consumption. (19)

However, I believe that the physical mobility around and direct sensory interaction with transparent imagery demands an alternative interpretation of urban experience if we are to account for the degree of embodied engagement rather than *dis*-engagement present in these cultural artefacts and acts of illumination. I claim that an ontological commitment emerged between a set of historically

contingent human and non-human agents: transparent image, built environment, perceiver, and modes of illumination. This association generated agreements about how to act through the acquisition of perceptual knowledge and cultural values. However, I also claim that the commitment was conditional and impermanent suggesting a more culturally pervasive shift in attitudes towards the cultural *and* natural environment. Membership of the association was always subject to revision. Consequently the provisionality of the perceptual process is also evident through disagreements and negotiations about where acts were allowed, who claimed ownership of them and how their value was interpreted.

One: Interpreting the Middle-Class Domestic Interior

The phrase 'domestic interior' is not an ahistorical term, but emerged simultaneously with domestic transparent imagery and formed a new, culturally distinct spatial arrangement in which new modes of aesthetic self-expression and experience were enacted. Therefore, the formal techniques and cultural associations engendered by transparencies in public spaces, such as theatres and pleasure gardens, were not equivalent to those present in the private, domestic interior. Transparent imagery in the home was specific *to* the home. The domestic production and consumption of transparent imagery belonged to the broader ornamentation and decoration of dwellings which, in the early nineteenth century came to be recognised as the practice of interior design. However, before domestic transparent imagery can be studied in detail it is necessary to give further consideration to what the coupling of the words 'domestic interior' actually mean.

The concept of the domestic interior, and in particular the drawing room, is embedded within a historical set of discourses and material artefacts, but because no other research, apart from Plunkett's, has either recognised or evaluated the impact of domestic transparent imagery I propose that my interpretation requires a reassessment of how previous scholarship has interpreted public / private discourses and the periodization of developments in design.

To understand the domestic interior, its values, aspirations and ornamental treatments we can firstly look to discourses that sought to consciously mould public opinion about residential dwellings. One of the earliest and most influential texts was published in 1807 by the Neo-Classical designer, novelist and art collector Thomas Hope. In his *Household furniture and Interior Decorations*, the concept of the interior and the practice of interior design appeared for the first time as a fully articulated mode of aesthetic expression. Fabrics, furniture, fixtures and fittings, lighting, wall colours, artworks and room layouts were brought together by Hope in a vision of coherent and continuous design. As the architectural historian, David Watkin writes, 'throughout the house, he also took pains to ensure a meaningful and appropriate connection between the object displayed and its setting' (*The Reform of Taste in London* 28).⁶ The social appetite for this new mode of expression can be seen in George Smith's swift and opportunistic plagiarism of Hope's book with his own version *A Collection of Designs for Household Furniture and Decoration* from 1808.

⁶ The manuscript was published by the established firm Longman as Hope believed they could satisfy his ambition to disseminate his vision as widely as possible. Hope also chose to only print uncoloured, line engravings as accompanying illustrations thereby reducing the production cost which Hope reflected in the retail purchase price.

The context of Hope's work and the rise of domestic interior design in the nineteenth century have been approached from a number of angles. Watkin reads formal developments in elite architectural spaces through the individual oeuvres of men such as Hope and the architect Sir John Soane. From this position Watkin goes on to situate these figures within a broader historical context and identifies how their work intersects with early nineteenth-century discourses of the Picturesque and the Sublime. Although Watkin is primarily interested in solid, permanent structures, he is also, at points, interested in the manipulation of light in the built environment in combination with soft and hard furnishings. However, Watkin's overriding concern is focused on the production rather than reception of architecture and interior design. Equally, Jules Lubbock's architectural and design history, which considers institutional and commercial mechanisms for coping with tensions produced by pressures of luxury and morality, fails to contextualize experiences about how individual objects were used, located and valued. In contrast Clive Edwards presents a socio-economic and business history of domestic design across a similar timeframe to Lubbock, but his focus on retail methods and patterns of consumption is sensitive to cultural significations of home, identity, and familial relations. The question he poses for his own research area, 'what mechanisms are brought into play when home is seen as an entity expressing relationships between people and social structures' (5) is equally relevant for the subject of this chapter, yet my conclusions differ somewhat. Edwards emphasizes passivity and constraint in consumer behaviour (11) thereby occluding any possibility of personal agency. Any sense of active, everyday

interventions in the appearance and experience of dwellings occurring during this period is lost.

If we turn our attention to the specific area of the house where transparent paintings were both executed and displayed a slightly different perspective on interior design comes into focus. More than any other room, the drawing room was identified as a space of both fashion and femininity, both in terms of design and social activity. Thomas Sheraton endeavoured to 'concentrate the elegance of the whole house' in the drawing room which, he believed, should be treated as a stage for the 'highest display of richness of furniture' (1803:218 vol. 2). In 1834 John Claudius Loudon feminized both the form and the function of the drawing room, defining the space as 'the sitting apartment of the ladies' (*Encyclopaedia* 796). Ten years later Benjamin Disraeli commented that 'Woman alone can organize a drawing room; man succeeds sometimes in a library', in his novel *Coningsby* (153). By the middle of the century women became increasingly responsible for overseeing drawing-room design as well as choreographing the social activities that took place in that space.

Trade publications routinely supported the practice of demarcating domestic space along gendered categories. Although *The House Furnishing Assistant: The Practical Cabinet-Maker and Upholsterer's Treasury of Design*, published in 1847 makes no mention of women, gendered connotations are nevertheless implicit in the author, Henry Whitaker's observation that 'The drawing-room is the place where fancy and fashion have hitherto held undisputed sway' (7). In contrast to this space the dining room and library were labelled as a predominantly male domain (Schoeser & Rufey 31). Accordingly each room displayed expressions of

femininity and masculinity. Transparent paintings were well suited to the light, pale and airy furnishings favoured within drawing-room design. The library and dining room were notably darker, less showy and more restrained in the display of sensuous materials.

Transparent imagery's capacity to both express and produce a new sensory reciprocity between user and their environment via the manipulation of light was accompanied by new literary figurations of space and subjectivity; representations of the domestic interior were verbal as well as visual. Charlotte Grant asserts that the literary use of domestic space within the realist novel was a powerful mechanism through which literal and metaphorical ideas of interiority could be processed.⁷ Citing Georg Lukacs' observation that 'the interior furniture of houses appeared together with the interior furniture of minds' (235), Grant attempts to historicize Lukacs by suggesting that 'the domestic interior, by the 1820s comes to figure a kind of interiority' (243). Grant's early nineteenth-century dating of this move towards the spatial representation of consciousness coincides with the period in which domestic transparent painting was at its most active. I argue that these parallel modes of expression, one through language and one through effects of illumination, are evidence that new formations and interpretations of perception were at work.

Charles Rice's *The Emergence of the Interior: Architecture, Modernity, Domesticity*, argues that the interior is not 'reducible to architecture' (3) and that architectural history must rethink its own disciplinary constraints. For Rice the

⁷ A similar stance is offered in Susan Sidlauskas's art historical research in *Body, Place, and Self in Nineteenth-Century Painting*. Gere's and Thornton's studies on visual representations of nineteenth-century domestic interiors are more illustrative and reductive.

subject of the interior deserves dedicated research and requires a less exclusive set of disciplinary tools. He realizes this by bringing the cultural materialism of Walter Benjamin and Freudian psychoanalysis to bear upon a series of chronological case studies. Influenced by Lukacs and Grant, Rice claims that 'the interior emerged in a domestic sense as a new *topos* of subjective interiority' (2). He goes further and suggests that 'The interior conceptualized a particular emerging and developing consciousness of and comportment to the material realities of domesticity, realities which were formed in this emergence' (3). Rice's work provides a further iteration of how the nineteenth-century domestic interior operated on both literal and metaphorical levels. I argue that as a central feature of many domestic interiors of this period, transparent imagery adds a further inflection to experiences of interiority. The mutable and ephemeral lighting effects of transparent imagery offered an aesthetic articulation of modern consciousness.

The work of Sidlauskas, Grant and Rice belong to a shift in approach to studies of nineteenth-century domestic practices and spaces which has occurred within the last fifteen years. The combination of new theories of space and place (for example Jameson; Massey), the disciplinary confidence and maturity of cultural studies, plus the influence of de Certeau's work, evidences a new figuring of the relationship of the individual to society. Ann Bermingham's *Learning to Draw: Studies in the Cultural History of a Polite and Useful Art* is an exemplary case in point because she focuses on drawing practice beyond the male, professional and public realm of the academy and looks instead at how the amateur pursuit of drawing 'offered tools that helped people negotiate their subjectivity both in individual terms and in terms of class and gender' (ix). She goes on to argue that

the ideal of the 'accomplished woman' participated in the feminization of a commodity culture which was deployed in contradistinction to identities of masculinity, 'We can say that the female amateur was defined in relation to certain specific constructions of masculine subjectivity, among them the artist, the critic, the cultural entrepreneur, the drawing master, and the genius to name but a few' (181). Existing between these two quotations is an ambivalence and complexity about self-determination. To some extent the female accomplishment of learning to draw produced a culturally desirable subject who was both malleable and marriable. Yet, within this social structure, and borrowing from de Certeau's concept of the tactic, Bermingham also finds evidence of female agency when she writes, 'The commercial construction of the domestic woman as the artistic beautifier of the home gave women a kind of cultural authority to practise art and to express themselves on matters of taste and aesthetics' (225). I argue that Bermingham's recognition of perceptual agency in everyday acts such as drawing is more explicitly evident in the activity of transparent painting, which she makes no mention of, and that transparent painting is the tangible articulation of these uncertain dynamics. This activity, more than any other mode of amateur representation offers the clearest example of a moment when female subjectivity was not necessarily constructed as simply culturally reactive.

Whilst Bermingham focuses on the construction of female subjectivity through two-dimensional representational drawing practices, Thad Logan considers female expression in the three-dimensional domestic environment. Logan discusses the ideology and aesthetic of the middle-class parlour or drawing room and comes close to addressing the agency of commodities head-on, but, to

my mind, shies away from the full perceptual implications of materiality during this period. She says of the bourgeois interior that it 'becomes increasingly full of objects, cluttered - and to modern eyes, at least - with a profusion of things, things that are not primarily functional, that do not have obvious use-value, but rather *participate in a decorative, semiotic economy*' (26 emphasis added). To this I add that a perceptual economy also existed. The acquisition and exchange of both skills and artefacts associated with transparent imagery suggests that certain modes of perceptual knowledge commanded, to use Bourdieu's terms, both cultural and commercial capital.

Reading the feminine space of the drawing room as representative of increasingly private and passive female behaviour is a common, and I believe problematic, approach for scholars of nineteenth-century design history. Logan maintains that domestic culture articulated 'a growing interest in privacy' and 'a new inclination to rigid differentiation of the internal domestic space', and Rice explains that the bourgeois drawing room should be understood as a gendered 'reaction to the alienation and disjunctions of the modernizing city' (Rice 10). Penny Sparke provides compelling material evidence to support this position:

Mid-century parlours in Britain and the USA combined velvet damask and lace draped at window and doors and across items of furniture as a means of emphasizing the privacy of spaces and of concealing corners which were considered the epitome of discomfort. These heavy fabrics muffled sound, softened light and increased the level of quietness in an interior, thereby exerting a highly civilizing influence. At the same time they served to shut off the outside world, thus re-inforcing the separation of the spheres. (40)

However, Sparke's conclusion that Victorian filters of light unequivocally split the two spheres asunder is too reductive. Schivelbusch takes a similar line to Sparke,

and in spite of his attention to detail he nevertheless takes a somewhat documentary rather than interpretative stance, particularly when considering visual representations. This combined with his reliance upon Foucault's theories of social control and the ideology of the separate spheres leads him to state that the 'public and private were increasingly separated in bourgeois life' (185). He concludes from this that illumination in the drawing room was determined by a desire to create an ambience of retreat and sanctuary away from the experience of modern urban existence. However, I argue that transparent imagery's enthusiastic engagement with commercial and amateur commodities of lighting is testimony to the willing encounter with and manipulation of environmental lighting conditions as a means of self-expression and is symptomatic of a less reactive and more complexly dynamic relationship between public and private spheres. Rather than denying or repelling exterior light, domestic transparent imagery negotiated a perceptual dialogue between interior and exterior realms of experience.

My proposition that transparent imagery provided an aesthetic hinge between the house and the world beyond shares an affinity with the work of Sharon Marcus. In *Apartment Stories: City and Home in Nineteenth Century Paris and London* she 'presents a history of the city written from the point of view of houses that were not enclosed cells, sealed off from urban streets, markets, and labor but fluid spaces perceived to be happily or dangerously communicating with more overtly public terrain' (3). Her study is important to my work because she revises previous scholarship (Poovey; Armstrong; Davidoff & Hall; Walkowitz), which 'took the *gendered* separation of public and private spheres as an explicit topic of research and critique' (6). Marcus's revision does not seek to discredit this

earlier work, but instead draws upon it to present a more nuanced and complicated model of public/private spheres. She achieves this by reading urban dwellings as fluid rather than discrete spaces thereby 'dissolving the boundary between residential and collective spaces' (3). Margaret Ponsonby also draws attention to ways in which the drawing room served as a bridge between public and private dispositions (4). She stresses the individual as opposed to generic nature of non-metropolitan middle-class homes and residents between 1750 and 1850. I support Marcus's and Ponsonby's desire to re-interpret the cultural device of the separate spheres, but argue for a re-adjustment to Marcus's timeframe, pulling it back to the start of the century when domestic transparent imagery actively connected and manipulated experiences and organisations of interior and exterior spaces on aesthetic, social and commercial levels.

My research into transparent imagery requires a reassessment of periodization as well as public / private discourses. Deborah Cohen's study, *Household Gods: The British and their Possessions* takes as its subject the home and domestic commodities between 1830 and 1930 and argues that issues of religion and morality were debated through the site of the home and its furnishings. Whilst this position in itself is sound she substantiates her claim by off-setting mid-Victorian vigilance in matters of design against 'Georgian frippery' (19). This problematic stance is further complicated as she proceeds to contradict this first interpretation of early nineteenth-century design versus Victorian taste when she proposes that 'the clutter we associate with Victorian interiors came at the end of the nineteenth century, not before. The rooms of the 1830s and 1840s were relatively spare, as befitted their religiously minded (and financially straitened)

inhabitants' (34). Cohen's reading of Georgian design as 'relatively spare' is only relative in a retrospective sense and does not consider the early nineteenth-century middle-class interior on its own historically contextual terms. Cohen draws attention to the new perception of commodities' expressive power which she dates to the Great Exhibition of 1851 and the 'Chamber of Horrors' of 1852 in which attempts were made to educate the public in matters of good taste by exposing them to displays of 'bad design'. She says at this point, '...design reformers endowed goods with new meanings: what one owned, bought, and treasured helped to shape - and hence also communicate - something of the moral make-up of a person' (19). For Cohen the forceful meanings attributed to these objects were framed by the trajectory of the century's religious, moral conduct. Yet the dating of this shift is, I believe, too late. In chapters one and two I demonstrate that cultural anxieties about the expressive potency of domestic materiality were being voiced considerably earlier in the century. Criticisms about the seemingly chaotic distribution and appearance of domestic possessions pre-dated Victorian attitudes towards dwelling. That many of these criticisms targeted effects of lighting such as 'glare' signals the existence of a close correspondence between material consciousness and cultural consciousness.

Two: The Materialisation of Transparency

In contrast to standard practices of opaque printing and painting, transparent imagery employed a different set of rapidly evolving skills, materials, tools and perceptual aptitudes. These factors deserve attention, particularly when we take into account the frequent overlap between artists and consumers of art which occurred throughout the larger market of amateur artistic production. Unlike standard amateur drawing, the active presence of light was essential to the success of the transparent medium and required a greater manipulation of paper, paint and varnish. Therefore, before addressing the content of *what* was represented we must analyse the *how*.

Cultural desire for the transparent aesthetic is evident in the seemingly banal area of the medium's material support. The search for satisfactory effects of transparency stimulated actions of ingenuity and adaptability resulting in an unusually wide range of material upon which an image could be applied. Glass, porcelain, silk, linen, cambric, canvas and paper were all used to enable a transparent appearance. In addition to aesthetic functionality, these materials were also tied into market forces. The first three items commanded higher monetary value and therefore operated in the luxury end of the market. The association between elite materials and elite social groups is indicated in an article from 1808 in the fashionable magazine, *La Belle Assemblée*, a periodical first published in 1806 and aimed at a primarily affluent female readership, which devoted much of its content to matters of fashion, as the second section of the magazine's title makes clear, *or Bell's Court and Fashionable Magazine Addressed Particularly to the Ladies*. The article, titled "The Duke of Kent's Mansion in Knightsbridge"

detailed the furnishings of the Duke's residence and stated how, 'the whole of the windows are occasionally covered with painted transparencies on silk, producing the most beautiful effect imaginable' (192). At the opposite end of the socio-economic spectrum George Paston's, *Little Memoirs of the Nineteenth Century* describes how the young Quaker Mary Howitt used poor quality paper as a support by for her transparent painting activities (333). In cases such as these energy was directed towards transforming the look and feel of paper into the more sought after appearance of glass in an aspirational, alchemical endeavour to blur material and economic boundaries creating a perceptual confusion between qualities of glass and paper. But it was not only the material support which was transformed; the immaterial quality of light itself was altered.

Printing on glass was a variation of transparent imagery popular throughout the 1700s, which peaked in the last thirty years of the century. The technique aimed to capture in a more cost effective fashion the luminous effects of painted glass. Fig. 1.1 shows an example from the Victoria and Albert Museum entitled *A Millener's Shop* (1772). In this process a paper print was dampened and then placed on to the surface of the glass. After a period of time and coaxed with gentle rubbing the print was removed and an impression of the image adhered to the glass. Once the image had been transferred oil paint was applied to the reverse side of glass. Early examples of glass prints are rare due to the combined fragility of the support and the image; in the late eighteenth century glass printing and painting was not generally considered to be an activity for amateurs due to both the fragility and expense of glass, and that the application of colour involved a range of complex techniques. Nonetheless, mimicking the quality of stained or painted glass

was highly desirable. It was frequently cited as the ideal standard against which the success of transparent imagery was measured.

In the nineteenth century the practice of transparency persisted and developed, spreading to more amateur audiences. Towards the middle of the century amateur decorative work with glass became more widely practised when the taxation on glass was repealed in 1846, and its manufacture had diversified. It was often referenced in fashion magazines and amateur art and craft manuals. Within the pages of *La Belle Assemblée* articles, reviews, illustration plates and advertisements frequently took as their subject amateur artistic pastimes, such as this advertisement from 1818 in *La Belle Assemblée* placed by H. Sass and addressed 'To the Ladies' hoped to attract business from the elite and aspirational readers who might desire instruction in the à la mode pastime of 'teaching of painting on glass at his house'. That aspirational publications such as the *La Belle Assemblée* and the *Literary Gazette* contained articles about "Encaustic Glass Painting" (Schwiegrauser) situates the aesthetic and activity firmly within gender and class structures. The collaboration between publication and the painted medium mutually affirmed and legitimated their status through one another, and to their female consumers.

When questioned about the state of professional glass painting by the 1836 *Select Committee on Arts and their Connexion with Manufactures*, the fine artist and former glass and china decorative painter, John Martin, explained that the tax on glass inhibited experimentation and that as a consequence the development of the art form suffered (72). Stained glass painting was ordinarily restricted to professional artists supplying elite markets, such as the residences of the

aristocracy and commissions for church decorations. In *A Concise [sic] Account of the Principal Works in Stained Glass that have been executed by Thomas Willement* (1840) the artist's clientele is firmly situated within the elite strata of society. The Earl of Abergavenny, Earl of Tyrconnel (7) and Earl of Aboyne (32) all placed commissions with Willement in the first decades of the nineteenth century. Even though established artists such as Thomas Gainsborough (Mayne; Birmingham *Sensation and Sensibility* 24,153; Plunkett 177), John Martin, Thomas Jervais and Francis Eginton all executed paintings on glass, the medium was still relatively unusual. But seven years before the repeal of the glass tax, Daguerre made public what was to become a new and significant method of representation – the daguerreotype. Rather than painting on glass, Daguerre used a combination of chemicals and light to fix an image onto the surface of the glass. However, because this chapter is concerned with the production and consumption of transparent imagery within non-elite, domestic and secular environments before 1840, the matter of glass painting and photography will not be pursued further here.

In the aforementioned article by Plunkett, he proposes that transparent images were amongst a number of related media in which the surface of the image functioned as more than a support, and in fact should be understood as an early form of screen entertainment. The concealing and revealing uses of light through, and on to the surfaces of transparent imagery certainly suggest that the term screen is appropriate when understanding this visual mode. Yet these early nineteenth-century screens were different from twentieth-century screen practice. The screen of the cinema is a one-way projection of light upon an unblemished and

unbroken surface within the controlled environment of a uniformly darkened auditorium. In this space the screen remains intact; there is no interference on, within, or behind it; no back projections, no material added to or taken from the screen. The screen is a passive carrier of meaning, to the extent that we do not even see the screen, only the images upon it. The screen reveals images and conceals its own presence. Nothing actually touches or penetrates it; cinematic images glide across leaving no trace. What began as a complex multifaceted figuration of the screen in early nineteenth-century transparent prints, paintings and optical devices has, in the twentieth century been stripped down to the bare essentials of the cinematic apparatus. However, it is worth noting that twenty-first-century multi-media experiences now invite the user to touch, tap and stroke the screen.

In contrast to the twentieth-century cinematic screen we can see that eighteenth and early nineteenth-century screens of transparent imagery assumed active rather than passives roles in the production of meaning. Meaning did not just lie on the surface in the form of paint, instead the support or screen made meaning in its own right, as a signifier. The screen was worked, cut, stretched, scraped, heated, treated and painted. Given this amount of handling it becomes clear that these surfaces cannot simply be read as precursors to the cinematic screen. As will become evident both professional and amateur instructional manuals dedicated significant attention to the treatment of the support demonstrating that this area was as much a part of a specific creative process as the application of paint was to the surface.

The popularity of domestic transparent imagery in the nineteenth century was pre-figured by an earlier circulation of transparent media. The closest precursors to nineteenth-century transparent prints were *vues d'optiques* (or perspective views) (Blake). These hand coloured prints were accompanied by a viewing device called zograscope which held and framed the image (see fig. 1.2). Most prints depicted the topography of urban landscapes in which the perception of perspective was heightened as viewers looked through an optical instrument composed of a convex lens and mirror onto which the print was reflected. When the print was contained within a box, the device was referred to as a peep-show (Balzar). Paint and varnish were applied to both sides of the print, areas of the support were removed or replaced with tissue paper and candles or lamps were placed at the rear to produce illuminated transparent qualities. *Vues d'optiques* in the form of the zograscope were primarily polite, private entertainments, whereas the peep-show version of the prints were more popularist and could be seen on the street or at fairs.

Fig. 1.3 is a French *vue d'optique* of Vauxhall Pleasure Gardens, published in Paris between 1745 and 1770, and uses techniques of selective back painting, varnishing and back-lighting which were adopted and adjusted by nineteenth-century artists in transparency. Via the techniques of back-lighting and transparency this print attempts to capture the viewer's imagination with a simulated impression of the illuminated entertainments at Vauxhall Pleasure Gardens. Throughout the eighteenth and nineteenth century, Vauxhall was renowned for extensive and impressive illuminations and is, in its own right a subject that I will return to in chapter four. For the moment I want to pursue how

aspects of form and content work at different levels in this image to produce overlaps in the representation of space and illumination.

Small and various shaped holes in the support function as both actual and depicted points of light which adorn trees and buildings at regular intervals throughout the scene; these dual light forms generate an elision between signified and signifier. Fig. 1.4 shows how techniques of back-painting, varnishing and additions of tissue paper enhanced the effects of luminosity. The quality of transmitted light is rendered sharp, concentrated and contained due to the abrupt contrast between the behaviour of light across the primary surface area and then through the holes in the support. As a result there is little if any gradation between light and dark zones, rather light remains held by the perimeters of the perforation and does not spill out into other areas of the image. In this way the support directly controls the appearance of the print.

Perspectival techniques and the topographical choice of subject matter were dominant themes of mid-eighteenth century *vues d'optiques* and belonged to a broader visual interest in map-making and topographical practices (Birmingham *Learning to Draw* 78-90). In her essay “Zograscopes, Virtual Reality, and the Mapping of Polite Society in Eighteenth-Century England” Erin Blake cogently argues that *vues d'optiques* were primarily concerned with the representation of urban space through linear perspective thereby enabling a polite and elite visualisation of public space, ‘By creating a three-dimensional space for viewers that was both domestic and public, zograscopes allowed users intricately to develop a new relationship between privacy and the public sphere. Zograscopes provided a model for seeing public space as generic, neutral “polite” space’ (2).

It is also the case that the role of light functioned as a persistent formal device. As the avenue of trees in the print recedes the location of the light holes follow straight, unbroken lines directing the gaze to the vanishing point on the horizon. Yet, in spite of the fact that the line of lamps was intended to emphasize a sense of pictorial depth, perspective is nevertheless subtly disrupted due to a conflict between the representation of distance, unvarying intensity of light and the size of the perforations. Therefore, the foremost concern of prints such as this is to attract perceptual engagement through the manipulation of light; the imperative of three-dimensional realism is secondary. Vauxhall's fame for lights included transparent paintings as well as numerous lanterns and it is through this connection that the activity of light in the print is extended. When the viewer's eye follows the path of lights, optical movement is terminated by a larger illuminated area of the print covered with a layer of painted tissue paper. The transparent print represents the attraction of a transparent painting. The medium of *vues d'optiques* indicates that effects of transparency pre-dated early nineteenth-century transparent prints and paintings and suggests that it was not so much the technique which was new but the fashionable status attributed to the aesthetic.

By the end of the eighteenth century boundaries of transparent image-making were being pushed and the balance between strategies of perspective and effects of illumination had shifted. A new and highly productive partnership between transparent imagery and discourses of the Picturesque and Gothic meant that the previously dominant style of aerial surveillance was replaced by a greater interest in representing atmospheric space. Storms, moonlight, sunrise and sunset became legitimate objects of observation rather than famous, unique locations.

The apparatus dependent *vues d'optiques* with their grid-like, distant and disembodied views punctuated by isolated bursts of light had given way to representations of more intimately grounded points of view in which varied gradations of lighting effects dramatized the scene. Bermingham categorizes the aesthetic and says that:

This new taste, which was attuned to the optical features of a particular scene and their effects on the viewer's perception, is what I am calling the landscape of sensation. Unlike the landscape of sensibility, the landscape of sensation did not generalize in order to appeal to a universal and collective vision. Instead, it particularized landscape types and depicted them as a collection of individual features naturalistically observed. (*Learning to Draw* 120)

Crucially many of the newer transparent prints did not rely upon viewing devices, but were instead mediated through viewers' somatic experience in and response to the domestic setting.

Three: Circulating Networks: Prints, Publishers and Purchasers

How then was actual and representational space affected by these changes in transparent imagery? In order to tackle this question we must first look at the increasing domestic demands for new modes of transparent imagery which were partially determined and satisfied by the late eighteenth and early nineteenth-century print and book trade. Here Edward's socio-economic analysis of the domestic design industry usefully identifies the complex dynamic of interactions between participants and commodities:

Household furnishings are paradigmatic consumer goods that enter the home as a result of negotiations between producers and buyers, most often with the retailer acting as intermediary. Although the goods have an initial status or symbolism, the retailer adds value to them, the buyer constructs additional meanings when they are 'at home', and even when the goods are later discarded another set of connotations may accrue. (6)

Edward's breakdown of the constituent parts of commodity exchange responds particularly well when seen in connection to the commercial behaviour of domestic transparent imagery. The very nature of transparent prints' reliance upon owners' commitment to place them in an appropriate domestic light source meant that the owner was always in an act of adding value to the original item.

Greater availability and affordability of printed material meant that the emerging middle classes were able to participate in and shape products which circulated through the networks of print culture. Two highly influential figures in this configuration were Rudolf Ackermann and Edward Orme, who both made and sold transparent images, as well as manuals which described how amateurs could make their own images. Examples of illuminated prints adorned the inside and outside of their shop windows, no doubt with the aim of inspiring passers-by to purchase either a similar print or accompanying manual designed to encourage the direct and practical engagement with natural and artificial light in the private space of the home.

The mingling of art, education, and commerce produced a hybrid institutional environment. These shops were places of social intercourse, commercial exchange, and aesthetic instruction. Moreover, with their tea rooms, libraries and lounges they invested both commerce and art with an aura of domestic comfort. (Birmingham *Learning to Draw* 127)

Bermingham identifies how important sites such as Ackermann's shop were in the acquisition and dissemination of objects, skills and cultural values. At venues such as this visitors could browse or purchase the period's key texts on the subject of transparency, Ackermann's *Instructions for Painting Transparencies* (1800) and Orme's *An Essay on Transparent Prints and on Transparencies in general* (1807). Both of these texts, particularly Ackermann's, were plagiarized by many subsequent texts, for example *The Panorama of Science and Art* by James Smith (1815) which contains similar instructions about how to make transparent paintings.

Not only were the representational boundaries of transparent imagery pushed, but artistic status and identity had also radically altered from the tradition of *vues d'optiques*. There was no longer a clear distinction between the producer and the consumer of transparent prints. Consumers were now also non-professional and therefore, non-commercial artists who nevertheless added cultural value to their status through their creative endeavours. Here is Bermingham again on the structures, activities, values and identities at play in the early nineteenth-century arenas of culture and commerce:

Because of the comparatively free-form, market-driven nature of cultural production in England, the ability to distinguish between types of production and products became an important cultural preoccupation in the 18th and 19th centuries...These distinctions, which Pierre Bourdieu sees as elemental to the organization of social life, do not rest simply on a material base of income and property but also on a perceptual and semiotic base of appearances and representations. Distinctions between high art and low art, between types of aesthetic experience, between professionals and amateurs, connoisseurs and artists, artists and artisans, became the very

stuff of British aesthetic discourse. As they became encoded in practice, these distinctions provided the means for individuals to test and establish their differences from others (men from women, the polite from the vulgar, aristocrats from bourgeoisie). (*Learning to Draw* xi)

The activity of purchasing and/or making transparent images within the home contributed to, what Mauss and Bourdieu would have termed, a person's habitus. The execution and exhibition of transparent imagery required possession of certain properties or dispositions. From these perceptual and conceptual attributes and attitudes a habitus was formed enabling a person to attain cultural status and membership to cultural groups. Ackermann consciously aimed to stimulate the amateur middle-class market for transparent prints by mediating and blending commercial and cultural capital.

The tangible result of Ackermann's efforts can be seen in number of artefacts from 1800. *The Dream* and *The Wedding* (see Figs. 1.5 and 1.6) were both hand coloured transparent aquatints which a purchaser could acquire and immediately display within their home without further need of any amateur artistic contributions on their part. However, Ackermann's instruction manual, published in the same year as the prints, provided a detailed account of how an amateur artist could achieve similar effects of transparency to those produced in the professionally executed prints of *The Dream* and *The Wedding*. The manual was an unassumingly small (16cm x 18cm), relatively inexpensive, un-illustrated volume and was successful enough to warrant three reprints. The book proved to be the first of a number of manuals which promised to train readers in the polite arts of transparency. Ackermann's text needs to be understood as field-defining. The fact that one individual, the amateur, is encouraged to be both consumer and

producer of their own artistic work in transparent imagery signals a new moment in the medium of transparent imagery *and* the everyday engagement with domestic light.

According to Ackermann, success in the execution of transparent painting was twofold, ‘Much depends on the choice of subject’ followed by technical expertise (*Instructions* 9). Scenes infused with the widespread popularity of dramatic gothic sensibilities replaced the aerial perspectives of mid-eighteenth century *vues d’optiques*. Ackermann recommended a range of stylistically suitable subjects:

[a] gloomy gothic ruin, whose antique towers and pointed turrets finely contrast their dark battlements with a pale, yet brilliant moon; the effect of the rays passing through the ruined windows, half choaked [sic] with ivory, or of a fire amongst the cluttering pillars and broken monuments of the choir, round which are figures of banditti, or others, whose haggard faces catch the reflecting light these afford peculiarity of effect not to be equalled in any other species of painting. (9)

Such gothic gloom permeated numerous cultural expressions of the early 1800s. The novels of Ann Radcliffe and William Beckford, the paintings of Henry Fuseli and the architecture of Sir John Soane all shared similar aesthetic and thematic concerns to those outlined here by Ackermann. Heightened manipulation of lighting effects stimulated the gothic imagination across verbal and visual media. Transparent painting required a particularly enhanced sensitivity to the combined performance of formal and representational qualities of light, ‘the great point to be attained is, a happy coincidence between the subject and effect produced’ (*Instructions* 10). Ackermann directs that:

the fire light should not be too near the moon, as its glare would tend to injure its pale silver light; those parts which are not interesting should be kept in an undistinguishable gloom, and where the principal light is, they should be well contrasted, those in shadow crossing those that are in the light, by which means the opposition of light against shade is effected. (10) Firelight, moonlight, glare and gloom were just some of the various real and represented qualities of illumination which demanded precise attention.

In addition to advice about appropriate subjects, Ackermann also provides step by step instructions guiding the amateur through preparation of the support, tracing the design, laying in the ‘tender’ parts such as the sky and moon if needed (*Instructions 6*). At the point of executing the main subject, Ackermann encouraged an act of, what I referred to in the introduction as, aesthetic phototropism by instructing the novice painter to move towards a source of daylight, ‘place your picture against the window, on a plate glass, framed for the purpose’ (*Instructions 7*). With the paper pressed to the window glass the artist applied paint to areas where greater shadow was needed in an effort to achieve sufficient contrast. The new painting position of the body at the window required direct contact between the artist and the structure of their dwelling so that the appropriate quantity and quality of light was captured.

Whilst undertaking this exercise it is more than likely that the hobbyist would have become conscious of the geographical orientation of the house to the sun, the time of day during which the activity took place and the quality of available natural light. The technique of locating and placing oneself directly in the path of the sun was also proposed by James Roberts whose publication swiftly followed Ackermann’s in 1800. Here Roberts recommends the use of a frame to enable

easy orientation towards the light, 'Begin by tracing the design on fine wove paper, of a moderate thickness, mounted on a straining frame, for the convenience of turning to the light when you want to see the effect to be produced in laying on the colours' (31). Transparent imagery's requirement for unusually dexterous handling of artistic materials combined with awareness of bodily orientation in relation to architectural structures, and the fluctuating behaviour of daylight, substantiates my claim that the formation of perception in the early nineteenth century was a matter of greater engagement *with* the everyday environment, rather than an enforced or imposed separation *from* the environment.

Transparent painting instruction manuals all shared an agenda of improving and cultivating the subject through the acquisition of skills focused on an ability to co-opt light for aesthetic appreciation. These activities belonged to wider practices of 'rational recreation', as promoted by William Hooper in the self-same publication of 1774. Hooper presented a range of scientific topics, such as optical theories of reflection and refraction, and explained them through a selection of educational activities for the amateur reader. Instructions and diagrams encouraged the reader to recreate Hooper's experimental philosophical toys for their own productive amusement. Hooper considered the techniques and effects of transparent imagery to be a sufficiently improving subject and included in his programme of cultivation the activity of making 'illuminated prospects' or *vues d'optiques* and constructing an accompanying viewing box. Hooper recommended that, 'when you colour a print, place it against a plate of glass, in an erect position before you, that it maybe enlightened by the sun' (189). Hooper's readership was located in the polite,

middling section of society, with a strongly female bias. Hugh Cunningham says of the links between class and these activities that:

Rational recreation was not something invented by the middle class for imposition on the working class. Its roots lay in middle class experience itself, in the problem felt by that growing eighteenth century leisure class which had an excess of time on its hands and yet wished to avoid aristocratic dissipation. Rationality implied both order and control. (90)

In addition to Hooper's handbook of beneficial leisure pursuits and Ackermann's painting manual, amateurs could gain further assistance in their artistic ambitions by engaging the services of a personal tutor. For five years, between the publication of Ackermann's and Orme's books, a Mrs and Miss Noel regularly advertised their artistic and educational services in *The Times*. A typical advertisement from the Noels reads:

Fashionable resort, from two till five o'clock, every day (Sundays excepted), No. 38 St James's Place, St James's Street. Original transparent drawings of the superior brilliancy and effect of painted glass. Also paintings, drawing and sketches in oil, watercolours, crayons, and chalks, by Mrs A. Noel. Temples, ..., flowerstands, fire and window screens, and several unique new ornaments for transparencies. Ladies taught as usual, at home, abroad, and at boarding schools (without entrance) in every stile [sic] of painting, drawing, transparencies etc. by Mrs and Miss Noel. Of whom may be had, instructions in writing, with gradations, rendering the method of drawing and colouring transparencies easy to those who have no foreknowledge of painting and drawing.

A business run by women for women, the partnership offered to teach precisely the same sort of skills that Ackermann and Orme both encouraged in their manuals and in publications such as Ackermann's *Repository of the Arts, Literature, Commerce, Manufacturers, Fashions and Politics*, which was a monthly periodical

of fashion, literature and cultural comment running between 1809 and 1828. In an article from 1810 edition of the *Repository* entitled, "Observations on Fancy Work, as Affording an Agreeable Occupation for Ladies" the writer asserts that:

drawing, the ground-work of refined taste in the arts, is now considered, and very justly, as an indispensable requisite in the education of both sexes. In that of females in particular, it has opened a prodigious field of the excursions of imagination, invention, and ingenuity (qtd. by Bermingham, *Learning to Draw* 145).

Ideals of femininity were asserted and expressed through a particular manipulation of material and immaterial elements. Fragile surfaces (glass, paper), subtle media (watercolours, chalks), ephemeral environmental lighting (daylight, firelight) were mediated by a woman's dexterity. The cultural construction of feminine identity as pure, pliable, transparently light (in both weight and appearance), and the aesthetic production of transparent imagery were ontologically entwined and mutually supportive. Bermingham notes about the broader activities of amateur drawing that these were '...ways for women to perform their subjectivity through certain allotted modes of artistic expression' (*Learning to Draw* 184). The set of factors involved in the execution, deployment and appreciation of transparent imagery extended beyond the limits of the body and was active in the immediate surroundings. These elements related to one another in complex configurations where surfaces, textures and lights were saturated with perceptual meaning.

The skill-set offered by the likes of the Mrs and Miss Noel in transparent painting was a social, polite and frequently feminine pastime practised in both urban and to some extent provincial locations, as is aptly demonstrated in a letter from Jane Austen to her sister, Cassandra, a year after Ackermann's publication of

1800, 'at Oakley Hall we did a great deal—eat some sandwiches all over mustard, admired Mr. Bramston's porter, and Mrs. Bramston's transparencies' (Austen-Leigh 142). The regular column entitled, "The Village Gossip" from the *Lady's Monthly Museum* gently caricatures the pastimes of a more rural lifestyle which was influenced by the metropolitan fashions of the day. The fourth entry for 1801 details a range of domestic activities including a woman called 'Maria's' execution of transparent imagery, 'To-morrow being the anniversary of young Stanley's birth, we are to have a sort of family concert and ball in the tea-room at the bottom of their garden, which has been decorated in a very tasty manner by my Maria, with drawings, transparent screens, and fringed drapery' (9). In 1814 Austen went on to fictionalise a similar configuration of gender, class and aesthetic dispositions in *Mansfield Park*, when she describes 'three transparencies, made in a rage for transparencies, for the three lower panes of one window, where Tintern Abbey held its station between a cave in Italy, and a moonlight lake in Cumberland' (141). Her phrasing of the 'rage for transparencies' captures the fashionable status of and appetite for transparent painting at the turn of the century. In the next chapter further evidence of similar perceptual agreements between bodies, gendered identities, lighting practices and domestic environments will be explored in the development of fashionable fabrics which framed both the domestic window and the female body.

In a literary tribute to the poet and scholar Elizabeth Smith, her friend, Henrietta Maria Bowdler, collected and edited a selection of Elizabeth's letters and verse. Within the publication Elizabeth mentions in letter dated from 1805 that she

has executed 'a few transparencies' intended for her companion's 'shew-box' (176). In a footnote Bowdler explains that:

At Patterdale and Coniston, Miss Smith and her sisters found much employment for the pencil, and I am in possession of a beautiful set of transparencies, from scenes in that country) which prove how well they employed it. Elizabeth discovered a method of clearing the lights with wax, instead of oil or varnish, which I think answers perfectly well. (176)

These descriptions are interesting for a number of reasons. Elizabeth's family could be described as polite and of the middling sort (Hawley). It appears that the images made by Elizabeth could be viewed in a 'shew-box', possibly a form of peep-show, or device similar to Gainsborough's exhibition box, or maybe a precursor to the artist and teacher, John Heaviside Clark's 'Portable Diorama' of 1826 (see fig. 1.7). Clark's reference to Daguerre's invention of the diorama was probably an opportunistic marketing strategy for whilst the paper slides of atmospheric lighting effects bore some resemblance to the diorama, the object was aimed at an audience of domestic amateur painters. This tabletop box accommodated transparent paper slides depicting various natural lighting effects executed in watercolour. The device was accompanied by an instruction manual, *The Amateur's Assistant*, so that the user could read, paint and then witness the illuminated effects of their work all within the purchase of one aesthetic package. Although we can only speculate about the details of Elizabeth Smith's 'shew-box', its general function was as both a tool and toy for the production and consumption of transparent lighting effects in much the same way that Clark describes how his portable diorama was intended to create 'the different appearances of evening, twilight, moonlight, rainbow, storm, volcano' (63).

The example of Elizabeth Smith's interest in transparent painting demonstrates that images and painting tips were shared, discussed and handed down by women and to women. In the last sentence of the footnote Bowdler documents Elizabeth's 'discovery' of using wax rather than oil or varnish for areas where greater transparency was required. This suggests a willingness to move beyond following instructions for purely mimetic purposes and, I suggest, reveals a deeper level of attention, innovation and engagement with the materials and effects of the process. These were acts indicating openness and imagination rather than reflexes of closed copying. The ability to successfully operate, participate and be recognised in this non-linguistic terrain of the perceptual required acquisitions of certain skills. The anthropologist, Ingold identifies skill as the key component in both biological and social change:

Skill...is a property not of the individual human body as a thing-in-itself, but of the total system of relations constituted by the presence of the organism in a richly structured environment. The study of skill...demands an ecological approach, which situates the practitioner in the context of an active engagement with the constituents of his or her surroundings. ("Situating Action V" 178)

Therefore, transparent painting should not just be read as a merely pleasant, passive pastime that trained female subjectivity into dispositions of insubstantiality, but required, as Ackermann suggested 'imagination, invention, and ingenuity' (*Instructions* 145). Of course, there is no doubt that for women transparent painting was a conventional and socially acceptable pastime, but there is an additional and more subtle dynamic of perception at play in acts of rendering and appreciating transparent effects. Heuristic attitudes of observation, initiative and experimentation were involved in women's experience of domestic transparent

painting and, therefore, had the potential to enable a new, more vital, aesthetic environmental consciousness.

However, the overlapping subjects of gender formation and transparent imagery were further complicated by acts of scrutiny, criticism and re-evaluation. Part of the process of testing the strength of agreements between perception and subjectivity was realised through the construction of cultural stereotypes. A negative expression of gender, age and class is caricatured through material possessions in the following literary sketch from the *Edinburgh Literary Journal* in 1829 entitled "Monsters not mentioned by Lineeaeus."

We shall begin with a female monster... *The Fashionable-Matron-Monster*, -a very formidable and imposing animal. Her drawing-room is the most splendid that was ever protected from the vulgar glare of day by glowingly painted window blinds. The foot sinks in her rich and velvety carpet as in a bed of moss. Her tables, of dark mahogany, or burnished rose or elm wood, reflect the carved ceiling in their massey [sic] mirrors. (110)

The subject of the sketch is defined by and through sensory qualities of her habitat. Of concern to the author are not the objects themselves, a blind, carpet, or table, but the manner in which they interact with ambient light. The filtered, glowing, burnished, reflectance of light became during this period a significant and problematic aspect of female fashion.

Perceptual activities associated with transparency could become even more problematic when a different element was introduced into the configuration. Although men did produce transparent imagery it was often in the capacity of a drawing-master teaching the skill to ladies and children, or as a tradesman undertaking decorative work. As Bermingham observes:

One of the transformations that took place at the end of the eighteenth century and during the early part of the nineteenth century as a direct result of the activities of men like Ackermann was that amateurs and amateurism came to be associated with the middle ranks, and, in particular, with middle-class women. (*Learning to Draw* 130)

It became increasingly unusual to find accounts of men practising amateur drawing in general, and transparent painting in particular, when no financial gain or professional status was present to validate the activity. Furthermore, faith in the authenticity of masculine identity could be questioned if effects of transparency were too closely associated with their person. In 1836 the *Law Magazine* reported proceedings from a high profile trial in Paris involving La Roncière, a Lieutenant in the First Regiment of Lancers, who was accused of rape. The prosecution claimed that in order to facilitate the rape the lieutenant forged some letters. His aptitude for this task and also by implication his disreputable character were demonstrated because 'he was known for his skill in making transparencies. He made transparencies; he had the tastes of a woman; he embroidered; he made slippers; he employed himself on works which could not have been executed without that kind of manual dexterity' ("The Trial of La Roncière" 266). Techniques of transparency could be inappropriately acquired and used, causing friction about the performance of etiquette and gender identity.

Not only was the stability of masculinity threatened by an over-involvement with the leisure pursuits of transparent painting, class identities could also be unsettled. Roberts warns that aesthetic errors of judgement betrayed wider, damaging implications about one's cultural credibility, 'I do not advise a scholar to varnish too highly; it spoils the delicacy of the atmosphere, and gives a picture the

appearance of a tea-tray, a bandezer, or a Birmingham sign' (33). As Maxine Berg has detailed in *Luxury and Pleasure in Eighteenth-Century Britain*, from the middle of the eighteenth century Birmingham was a leading centre in the production of consumer goods and had acquired a reputation for specializing in inexpensive, but nevertheless fashionable consumer objects. Less valuable materials of steel, brass and copper and new techniques of plating, casting, polishing and gilding were used in preference to more costly and traditional metals of solid gold or silver (159, 167). These new methods and product ranges challenged established London-based businesses of gold and silversmiths, provoking heated debates about quality control and standards of taste. Roberts's reference to a tea-tray and the location of Birmingham carries with it a whole set of associations concerned with the commerce of new luxury, but not necessarily quality objects. By juxtaposing domestic novelty objects against the artistry of transparent painting, Roberts attempted to distance his practice from accusations of vulgarity. Affirmations of taste were at stake and, if not careful, the amateur painter risked slipping between positive and negative registers of value; too much varnish and light reflectance equalled vulgarity and the taint of trade. William Hazlitt's 1821 essay "On Vulgarity and Affectation" attacks the 'smooth, cold, glittering varnish of pretended refinement' (391) leaving no doubt about where he would have placed these lighting effects on the taste–vulgarity spectrum. The relationship between ambient light and the surfaces and textures of the domestic environment is a subject that will be explored more fully in the next chapter.

In 1807 readers of Ackermann's and Roberts's instruction manuals on transparent painting had the opportunity to consult a further publication on the

subject. *An Essay on Transparent Prints and on Transparencies in General* was Edward Orme's contribution to the field and demonstrates his confidence that transparent print publishing was a growing market capable of supporting more than one leading business. Orme distinguished himself from Ackermann by making more direct appeals to the higher end of the socio-economic market, emphasizing his associations with aristocratic clientele and the connection between elite modes of aesthetic consumption and transparent imagery. Orme's advertisement in *The Times* makes the point:

A Magnificent Transparent Print of the Temple of the Sun...under the immediate patronage of
 His Royal Highness the Prince of Wales
 His Royal Highness the Duke of York
 His Royal Highness the Duke of Clarence (1799)

Orme claimed social and aesthetic status through the assertion that he possessed privileged access to the nobility and that his prints carried an authentic provenance. Throughout these early years of the century Orme regularly used the press to announce the availability of new transparent subjects ("Two new transparent prints" *Morning Chronicle*) or, as with this advertisement from 1801, "Three new Transparent Prints... which are fitted up for the windows and window blinds, to imitate the painted glass (*The Times*).

In an effort to stimulate commercial anticipation for his 1807 publication Orme targeted the elite, fashionable, and predominantly metropolitan and female readership of *La Belle Assemblée*. No doubt Orme wanted to position his product alongside illustrations for the latest London and continental fashions. In the

following advertisement from 1806, he primes readers of *La Belle Assemblée* for a future instalment of the periodical which will:

be enriched in a very extraordinary style, with a *Transparent and lucid Print in Colours*, as a Specimen of the Fashionable, and very interesting, mode of colouring Prints to represent the effects of Stained Glass.-With this Print will be given an explanation of the manner, with directions to persons for preparing Prints, and for colouring them to their own fancies, in this lucid and transparent style. (“Transparent and lucid Print in Colours”)

Orme's promotional style seeks to merge fashion and luxury materials with polite skills under the combined commodification of taste and tuition.

Orme's large quarto volume was a far more ambitious project than Ackermann's functional and unassuming manual of 1799. William Nicholson, no doubt referring to Orme's project, noted in an entry in the *British Encyclopaedia* from 1819 that 'authors and artists have been known to venture quarto volumes on the subject'. Published in both English and French, with hand coloured transparencies, Orme invested in higher production values which were then reflected in a greater retail cost, demonstrating his faith in the new appetite for transparent painting. Although Orme stated that the book 'is intended for the information of persons of every age, class and capacity' (9) the purchase price excluded the majority of readers and the book was no longer just a functional manual, but had been elevated to a luxury item in its own right. Orme continued to advertise in the fashionable press with notices appearing in 1807 for a "New Style of Transparency" (*La Belle Assemblée*).

Like Ackermann, Orme provided a step-by-step set of instructions. However, Orme also chose to complement his text with a set of delicately hand coloured transparent prints. Before the reader starts upon the task of learning techniques of

transparency she is encouraged, via the design of the frontispiece, to regard the activity as worthy of the highest artistic status (see fig. 1.8). The engraving depicts a robed male figure standing upon a serpent with a rod in one hand and with the other outstretched arm gestures towards three airborne creatures; two angelic cupids, one of whom rests on a cloud holding a palette and paintbrush; the third, a bat that flies towards the group. The foreground is framed by dark boulders split open through the force of a vigorous fire. This scene can be interpreted as an allegory of artistic creativity with light and darkness (the latter represented by the bat and serpent) controlled by the figure who is perhaps a symbolic projection of Orme himself. The image anticipates Orme's later descriptions of how to manipulate the qualities of light and dark in the execution of transparent prints. Orme performs a double manoeuvre here; he is at pains to both elevate the status of transparent painting, yet nevertheless achieve commercial success. Associations of money invariably tainted claims to creative genius and the medium of transparent painting suffered more than most visual modes from accusations of popularity, triviality and commercial intentions.

Orme continued to shore-up the status of transparent painting through the first visual example introduced to the reader. The representation of the jewelled crown served the twin purpose of establishing associations with both regal and artistic authority (see fig. 1.9). The image of the crown acts as a visual counterpart to the textual dedication, and the simulated opulent luminosity of the jewels aimed to convince the reader of transparent painting's aesthetic potential. In addition to this, the image also draws attention to the widespread practice of displaying large

transparencies on occasions of outdoor public celebrations for royal events; both Ackermann and Orme contributed to such events.

In 1800 Ackermann acknowledged the influence of Chinese practices of lantern decoration and chinoiserie in general (*Instructions* 5); Orme in 1807 claimed (wrongly) to be the sole originator through his 'discovery' of the transparent method and by omission denied any external or non-western precursors:

In trying experiments to improve the varnish generally used for oil paintings, some of it dropped unnoticed upon the dark part of an engraving; which being afterward exposed against the light, the spot where the varnish had been spilt formed light in the midst of shadow. (2)

Nevertheless, Orme followed the procedures established by Ackermann and instructed his readers to apply paint and varnish to selected areas on the front and back of the support. Because Orme supplied visual accompaniments to his instructions we are now able to assess, rather than just imagine the results of the technique.

Staying with the image of the jewelled crown we can see that the application of paint and varnish upon both sides of the support produced a greater level of saturation to the paper so that in certain areas there was almost a continuous flow of paint from one side through to the other. Upon the back of the image private, discrete brushstrokes were applied which functioned as filters through which the raw back-lighting of a candle or Argand lamp would pass and appear transformed on the public face of the image. Because paint and varnish lay upon, within and behind the support, the boundaries between paint and paper blurred and the role of the support shifted from being a passive receiver of paint

(as in traditional painting) to an active participant in the effort to achieve effects of transparency.

The degree of attention paid to paper quality for transparent paintings stimulated developments in the manufacture of paper and created debates in the public press about the advantages and disadvantages of various compounds. In 1813, the *Philosophical Magazine* ran an article entitled “Transparent Paper for Artists” in which the author observed that, ‘the tracing paper commonly used is apt to turn yellow, which injures its transparency and utility’ (233). To solve this problem a recipe for ‘white transparent paper’ is offered. Sourcing appropriate materials to facilitate cooperation between light, paint and support was therefore necessary if effects of deep luminosity were to be realized.

The collaboration between paper, paint and light was motivated by a desire to enact and witness events of aesthetic transformation. Orme’s hand coloured print of a cat’s head is a particularly persuasive example of this imperative (see fig. 1.10). In addition to the previously outlined methods of transparency Orme offered a further technique enabling a viewer to observe colour changing before their eyes. When heat was brought into contact with a solution applied to the reverse side of the print, the colour of the cat’s eyes changed:

The lines drawn with this *diluted solution* are visible when cold, and become of a fine greenish blue when heated; and have this singular property, that after they have been rendered *visible* by heat, they again disappear when exposed to cold, and thus may be made to *appear* and *disappear* alternately, by alternate application of heat and cold. (59 original emphasis)

By harnessing both heat and light as agents of representation, Orme's actions echo the activity of the frontispiece figure who, for the purposes of creativity, commands elements of fire, light and darkness.

Fascination with illuminated effects of transformation in transparent imagery belonged to broader cultural and scientific interests in powers of transformation. Although the process of change is a force that affects all aspects of human life, during this timeframe the rapidity and reach of change was swift and deep; from the political upheavals originating in France, to the technological developments of industry and in experiments of scientists such as Luigi Galvani who in the 1790s re-animated dead frogs with electricity, seemingly transforming dead matter back into a living organism. The production and consumption of transparent prints can be understood as both a response to change and a desire to subtly control the process in one's immediate environment. Transparencies were partly a project of aesthetic negotiation between the anxieties and fascinations of transformation. The images articulated a safe, harmless, controllable experience of change in much the same way that many optical toys of the early nineteenth century functioned, such as the invention of the kaleidoscope (1817), thaumotrope (1824), and zoetrope (1834), in addition to the proliferation of the magic lantern. Each of these devices and in particular the first three, demanded a one-to-one relationship between perceiver and object that was based, not upon passive spectatorship, but active and ongoing interaction with the device. The twisting patterns of the kaleidoscope, the thaumotrope's flipping images and the spinning slits of the zoetrope were all initiated by an individual's choice to control speed, body position, and lighting conditions. Transparent imagery was borne out of the same desire to interact and

experiment with the environment. However, domestic transparent imagery also possessed the additional and unique attribute of embedding itself within the very fabric of the household, as furniture such as firescreens, lampshades, window blinds, or on window panes (see fig. 1.11).

Like Ackermann, Orme recommended a choice of supernatural and spectral themes where qualities of illumination played an essential role for the creation of a gothic mise-en-scène. Following Orme's 1807 publication, he produced at least a further sixty subjects for transparent prints, many of which relied upon gothic sensibilities. Witches in Macbeth, caverns and forests were complemented by picturesque representations where natural atmospheric elements such as moonlight, water and clouds were foregrounded:

The subjects best calculated for transparent effect are those, in which the greatest opposition of light and shade can be produced, contrasting the gloomy with the lively. Or where there is a range of gothic arches, and perspective scenery; at the same time taking care, to have as great a contrast of light and shade, as the subject will admit. As for instance, the light of a fire opposed to that of the moon, with the moon's brilliant reflection on a body of water; or a warm sunset opposed to a waterfall, or other cool scene. (59)

Here we can clearly see that his primary interest is in the effect of light and that the depicted locations are of secondary interest, as if they are mere backdrops that enhance the contemplation of light and shade. These aesthetic concerns persisted into the 1820s and were integrated into both public and private spaces of entertainment such as Daguerre's diorama and the domestic transparent device of John Heaviside Clark's portable diorama of 1826.

Four: Situating Transparent Imagery in the Domestic Interior

Broadly speaking Ackermann, Roberts and Orme all promoted a similar set of techniques, subjects and uses. The latter component, i.e. uses, is the topic of the following section. The three-dimensional space of the domestic setting was not merely a neutral background for displaying transparent images, but was actively involved in how the images were made and encountered. In order to grasp the importance of the relationship between transparent surfaces, illumination and location, the work of the visual psychologist James Gibson provides a useful framework through which to think about the aesthetic illumination of early nineteenth-century domestic space. Working throughout the middle of the twentieth century Gibson initiated an influential break from previous cognitive psychological and philosophical models of perception. Rather than focusing on the static retinal image and the eye as a passive instrument of vision (as René Descartes had done), Gibson believed that perception (particularly visual) was the active and moving engagement with ambient light, i.e. the light which surrounds us and is formed through the variable surfaces and textures of the environment as we move through it. According to Gibson instead of responding to stimuli as an automatic reflex, we pick-up or seek out perceptual information; he titled this his 'ecological theory of light' (*The Senses Considered as Perceptual Systems* 12). While it was not Gibson's intention to pursue a historical study of perception there is, nevertheless, an inherent flexibility which allows his work to be read alongside certain early nineteenth-century positions on perception. There is a particularly sympathetic resonance with Johann Wolfgang von Goethe's writing on the

phenomenological attitude towards visual perception, 'from these three, light, shade and colour, we construct the visible world' (lii).

Although partially discounted by the more recent experimental visual psychology of Richard Gregory, Gibson's work is still used as a valid basis for contemporary psychological research.⁸ Gibson's theories also continue to be influential beyond the field of psychology. Two themes are particularly relevant in the context of this chapter; firstly, his willingness to move beyond the discrete and still space of the laboratory, so favoured by Gregory, and instead confront the experience of embodied, everyday existence. As Robert Shaw and John Bransford comment about the ecological approach:

rarely do we clearly enunciate any method by which theoretical principles designed to explain animal and human behaviour in the laboratory might be generalized back to the natural contexts in which the behaviours originated. We tend to forget that humans and animals are active, investigatory creatures driven by definite intents through a complex, changing environment replete with meaning at a variety of levels. (3)

Secondly, because Gibson believed that perception is part of a sensory system and that our involvement in this system is an active rather than passive experience. Gibson explains; 'action-produced stimulation is *obtained*, not *imposed* – that is, obtained *by* the individual not imposed *on* him' (31 original emphasis). Gibson's attention to the specificities of environment in combination with his belief in our capacities for sensory agency is particularly valuable when considering the historical formation of perception because it enables individual and cultural agency to co-exist within socio-environmental structures.

⁸ See the work of Findlay & Gilchrist and the 'International Society for Ecological Psychology', amongst others.

With Gibsonian theory in mind, I believe that transparent imagery of the early nineteenth century performed a double action of both producing and representing a moment of increased perceptual intensity between people and their urban environment. In the introduction I described this phenomenon as aesthetic phototropism. By this I mean that an encounter with these images is reliant upon an attraction or responsiveness to light (much in the same way that plants respond to sunlight) and that this attraction is stimulated by a desire to produce an aesthetic rather than biological experience. The perceiver must engage with two different types of light (first reflected and then transmitted light) in order to fully appreciate all that the print or transparent object has to offer. This aesthetic engagement is a process of experimentation, improvisation, judgement and adjustment to fluctuating qualities of light. Perception of the transparent object involved looking at, possibly holding, and moving around the object, adjusting a user's or object's position to available light. As this action was carried out the images flickered in and out of visibility. The person needed to negotiate and test environmental conditions in order to effectively experience illuminated transparency. The quality of experience was always dependent on the perceiver's ability to execute those techniques.

Ackermann's publication, and transparent imagery in general, influenced perceptions of what it meant to inhabit the domestic sphere: 'the effect produced by Transparencies, if managed with judgement, is wonderful, particularly in fire and moon lights, where brilliancy of light and strength of shade are so easily attainable, and ever must be superior to that of painting with opake [sic] colours' (3). In descriptions of transparent imagery reference to 'brilliancy of light' is frequently in evidence. Yet it is not simply to do with the intensity or strength of the original light

source. It is rather an articulation of a two step process; capturing and keeping the raw intensity of light whilst adding a further, transformative layer of a coloured filter, resulting in an effect of brilliant illumination. The domestic drawing-room flames of the open hearth, candle or lamp light, cool moonlight or the strength of the midday sun were all potential and variable sources of light which could transude through transparent painted surfaces. By judging the quality of available light in combination with the aesthetic filter of paint upon a canvas or paper support, the image and the room could be transformed. These viewing conditions were distinctly different from those required by opaque painting, which I discuss in chapter three, where constant, strong but diffused daylight was necessary and paintings were restricted to wall displays. Further sensitivity to the context of aesthetic experience is shown when Ackermann claims that, 'nothing can be more beautifully decorative than illuminated painted lamps or lanthorns [sic] either suspended in halls and staircases, or fixed on supper tables' (4). Passageways through which an individual moved or rooms of communal rest and consumption were all potential areas in which transparent imagery could be encountered. Given the impact and variety of these locations upon the appearance of transparent imagery it is necessary to think beyond the borders of the two-dimensional picture and project analysis out to include lived, illuminated space.

Roberts's manual advises that the practitioner take into consideration the functionality of the item and the conditions under which it would be experienced, 'if your transparencies are intended for windows, etc. to be seen by daylight, they will require less shade and more light, than those intended for candle-screens, lanterns, or fire-screens' (32). If the artist was sensitive to the specific features of

the illuminated environment, daylight and artificial light could both be caught and filtered by a transparent image. Unlike other graphic arts, the artist was required to think beyond the frame of the image and factor in how the image responded to the setting in which it was to be encountered. An awareness of three rather than two dimensions was also necessary given that transparent material could function as shading for candle or lamp light. No doubt taking the lead from Ackermann's and Roberts's guides, in an article titled "New and Fashionable Articles of Furniture", the *Lady's Monthly Museum* informed its readers that '*Hexagonal Lamps*, ---With transparent paintings, are becoming fashionable in inner halls of our leaders...they are ornamented, after the Chinese manner...' (289). Desire for domestic effects of transparency was stimulated by potent associations of novelty, fashion and aspirations towards elite modes of consumption. Fifteen months later in 1802 the same periodical was still favouring the transparent mode in a piece titled, "Transparencies" that clearly drew on Ackermann's text for inspiration:

Transparencies being now so generally admired by the fashionable world, as to be a necessary appendage to every entertainment that can boast of elegance and taste, a short account of the process may not be unacceptable.

The great expence [sic] of painted glass precludes its ever coming into general use as a decoration for Gothic rooms, grottos, hermitages, or other ornamental buildings, but, by the introduction of this new and beautiful style of painting, it is nearly equalled; and when managed with taste and judgement, the effect is wonderful and pleasing. For painted lamps and lanterns, to hang in a hall, or staircase, or placed on a supper table, they surpass, for taste or elegance, everything that has yet been invented: and a slight knowledge of drawing, and the management of colours, will enable any person to produce a number of pleasing subjects in this elegant art. (59)

Common across all these texts is the implication that one could create an elite atmosphere within one's immediate and daily surroundings by aesthetically altering light. However, it is significant that the management of light is referenced twice in this text. There is a subtle warning, implying that if the reader was not capable of adequately managing or controlling light the effect would be detrimental to the reader's cultural status. Therefore there is a direct correlation between environment and identity – light could not only create an impression of an elite dwelling and identity, it could also signal vulgarity in a person and their possessions. Light was a potent indicator or register of cultural worth.

Orme's programme of polite painting pursuits continued by guiding the reader through an array of suggestions in how to best display the effects of the medium. Fire and lamp screens, window blinds and lampshades were all potential sites for exhibition (see fig. 1.11). The combination of light and dark was essential for optimum viewing of transparency and required an environment offering sufficient contrasts of light and dark. Transparent imagery could be enjoyed either at night with localised artificial sources of back-lighting offset by the general ambience of darkness, or during the day, when the room acted like a *camera obscura* and the image at the window colourfully filtered the natural light. During the day, night-time transparent designs would remain in an inactive, latent state, nevertheless Orme recognises that they should still be aesthetically pleasing to the eye. It is for this reason that he recommends that:

the other parts, that are not transparent, being painted brighter, that is, the lights made very strong, the candles or lamps in the room might catch upon, and relieve them sufficiently. The chimney-board thus made would not have a dull effect in the day-time, when there was no light behind it. (17)

The domestic transparent surfaces are never aesthetically static, but are always in the process of disclosing their response to the illuminated specificities of their immediate surroundings. The aforementioned chimney-board is a mood-creating artifice, a substitution or simulation of an actual fireplace, as if the domestic space were a theatrical set rather than a real home. There is light but no warmth from the hearth. In some instances in the intimate, private spaces of the home the transparency takes on the ‘screening off’ rather than ‘screening on’ function; it protected the subject, taming and civilizing the harsh rawness of an unmediated firelight. Schivelbusch puts a negative slant on this development, ‘a flame that no longer cast a light directly but merely to make a transparent white ball glow from inside had been reduced to a machine for generating light’ (174). I argue that it is not appropriate to interpret transparent surfaces just as functional screens for the reduction, simplification and mechanization of light; these surfaces also aestheticized light.

Controlling the quantity and quality of available light within the domestic space was not just a matter of concern for male arbiters of taste such as Ackermann and Orme, but was also an intrinsic component to women’s involvement with making and displaying transparent imagery. In 1809 Miss D. Ball contributed an article to Ackermann’s *Repository* providing detailed instructions for the construction of a funnel shaped screen which would produce a ‘very agreeable light, much paler and less dazzling than that of a candle without such assistance.’

She goes on to suggest that:

White glass, either lined with stained paper, or painted on the inside with body colours, is to be preferred to coloured glass because the degree of opacity is necessary to conceal the flame of the candle from the eyes, and a

glass frame thus lined has the advantage of painted tin, as it is sufficiently transparent to throw a much greater degree of light over the apartment where it is used. (382)

Efforts to re-adjust artificial light levels due to changes in delivery methods and fuel qualities were much discussed beyond the pages of fashion periodicals. The American inventor and physicist, Count Rumford gave careful attention to this matter of shade in connection with the Argand lamp and suggested that 'ground glass, thin white silk stuffs, such as gauze and crape, fine white paper, horn, and various other substances, may be used for that purpose' (qtd. in Schivelbusch 167). Filtering artificial light through transparent surfaces became a formal topic for discussion in the public context of progress and commercial opportunity. In 1828 a notice for a 'New Lamp' in the *Mirror of Literature, Instruction and Amusement* describes how:

At a recent meeting of the Royal Institution an ornamental lamp was placed on the library table, the elegant transparent paintings and spiral devices of which were kept in rotary motion by the action of the current of heated air issuing from the chimneys of the lamp, which contrivance is well adapted to a number of purposes of ornamental illumination. (240)

As with Orme's picture of a cat's head, this is another example where the by-product of heat is explicitly used with light for aesthetic, transformative purposes. Another type of shade with qualities of transparency and transformation is described in 1873 by Julian Hawthorne in a chapter entitled 'The Daguerrotype' from his novel, *Bressant*:

Two small globes, terrestrial and astronomical, stood upon the table; on the mantel-piece was an ordinary kerosene-lamp, with a conical shade of enameled green paper, arabesqued in black, and ornamented with three transparencies, representing (when the lamp was lighted) bloody and fiery

scenes in the late war; but in the daytime appearing to be nothing more terrible than plain pieces of white tissue-paper. (48)

The late date of the source indicates the continuing appeal of transparencies and how the progression from day to night became embedded in the appearance and functions of both domestic equipment *and* techniques of visual representation.

What is at stake in domestic transparent imagery is the subtle acquisition of skills relating to practices of illumination. By co-opting ambient light and seeking out stronger artificial light (such as a lamp or a firelight) the *perceiver* makes the image afresh every time the print is taken up, or an object such as a lampshade is encountered. To use Thomas Lombardo's phrase from the title of his 1987 work about Gibsonian theory, there is 'reciprocity of perceiver and environment'. I consciously use the term *perceiver* rather than *viewer* here because more than the sense of vision is implicated in the pick-up of perceptual information connected with the transparent image. Motion through body position, hand-eye co-ordination and overall haptic sensitivity to the locality, all contributed to aesthetic experience. This is what Gibson would refer to as 'visual kinesthesia' where ambient light is used to measure physical orientation, 'even the locomotions and manipulations of the individual are specified by optical transformations in the light' (53). Harry Heft, writing specifically about this aspect of Gibson's research says:

with exploratory movements, the perceiver uncovers the *invariants* in the ambient optic array – information that specifies the rigid or inanimate features of the environment. Concurrently, changes or transformations in the ambient array specify the path of locomotion. (329)

Understood in this way we can see that an encounter with prints, lampshade or window blind is an event which involves the whole body through a requirement to

acknowledge the particularities of localised illumination and space. It is, in effect, possible to feel light.

In addition to lampshapes and fire screens, Orme and Ackermann both suggested that techniques of transparency could be used in conjunction with window blinds. The desire for transparent effects in the early decades of the nineteenth century appeared across interior design, architecture, fine art and popular aesthetics and converged in and around the window space. Glass quality, aperture design, surrounding fixtures and window size had all undergone significant changes in elite and middle-class dwellings due to broader changes in both engineering and cultural taste. The development of window drapery is a subject that will be addressed separately in the next chapter, but for the moment it is sufficient to acknowledge that a preference for wider, taller windows dominated the appearance of façade design, frequently stretching from floor to cornice. The landscape architect, Humphrey Repton made significant contributions to the development of this style, and according to the landscape gardener, Loudon, Repton firmly maintained that 'there is no subject connected with landscape gardening of more importance, or less attended to, than the window through which the landscape is seen' (*The Landscape Gardening and Landscape Architecture of the late Humphrey Repton* 435). The 'before and after' technique of Repton's print, *A Cedar Parlour and a Modern Living-Room* (1816) encapsulates his vision for the contemporary interior with expansive windows opening rooms up to landscape views (see fig. 1.12). The new, larger window stimulated alterations in accompanying window accessories. Window blinds became a more functional, aesthetic and popular option.

Placed at the intersection between inside and outside where the availability of light was at an optimum, window blinds were the ideal support for more large scale transparent imagery. Blinds could be procured from a number of different outlets or made by an industrious amateur. As we have already seen, Orme produced and advertised the sale of transparent window blinds from his premises. Consumers also had the option of purchasing these items from artisanal establishments. Fig. 1.13 is a trade card from 1807 for a decorative painter and paper hanger which announces that he can provide transparent blinds in a range of styles including French, Egyptian, Chinese and Gothic.

As Plunkett has noted, 'the demand for transparencies was such that their provision became part of the professional repertoire of drawing-masters and decorative painters' (182). Not only was the demand vigorous in Britain, but American artists and artisans were, at the same time, responding to a similar consumer desire for transparent imagery in the form of paintings, prints and window blinds. Charles Codman from Portland, Maine, operated as both a decorative and fine art painter and as such was one amongst many figures who turned their skills to the painting of 'transparencies for window curtains' as specified in an advertisement from 1822 (Felker 64). Artists such as Codman would have produced blinds fabricated from a single and continuous piece of material such as linen, canvas, calico or gauze, rather than working with the repetitive surface interruptions of a Venetian blind. A domestic guide from 1840 provides detailed instructions for home-made blind manufacture, recommending that blinds, 'should have tape loops or a case for the rod to slip in, and not be

nailed on, as the blind is so apt to wear and tear when taken off for washing' (*The Workman's Guide* 206).

Alongside amateur handbooks there was also a market for trade manuals which advised on transparent painting techniques. *The Decorative Painters' and Glaziers' Guide* (1827) by Nathaniel Whittock is one such publication and provided detailed advice for artisans about the preparation and production of transparent blinds. Given the book's title and the forced aesthetic overlap of transparency between paper, fabric and glass, it is quite possible that both painters and glaziers would have undertaken the manufacture of transparent blinds. Having prepared the support the painter would then execute designs in oil with the additional selective application of varnish and/or wax for areas of greatest transparency. Whittock goes on to prescribe a more limited range of subject matter than that suggested by Orme and Ackermann:

Pictures of storms by sea or land, moonlight pieces, and other subjects of the kind, however beautiful they may be as transparent pictures, are not adapted for use as window blinds, as they exclude too much light. Those subjects should be chosen that have one or two bold objects that can be easily executed, and not too much foliage. (200)

Here the priority was to enable the appropriate amount of external light to enter an internal, intimate setting. A dark composition depicting architecture, night scenes and storms was to be avoided as it threatened to exclude valuable light.

A number of rare examples of the type of blind described by Whittock belong to the Old Sturbridge Museum, Massachusetts. The earliest blind in their collection is of English origin dating from the very decade in which Whittock wrote and depicts a landscape scene executed in oils on canvas and measures 142cm x

89cm (see fig. 1.14). Broad brush strokes are used to represent a picturesque arrangement of land, water and architectural features which lead the eye into the heart of the scene. A darker top section of skyscape gradually bleeds into the paler horizon enhancing a sense of depth. The overall treatment of paint is more cursory than that seen in the transparent prints of Ackermann and Orme and suggests a mode of visuality commensurate with large scale transparencies popular in theatrical and dioramic performances during the same early nineteenth-century period (Callaway). In these spaces an emphasis was placed on distant visual impact, rather than the more attentive and intimate act of looking at domestic illuminated prints. Unfortunately, on the matter of theatrical imagery all we can do is speculate as there are no known material examples in existence.

Production of painted transparent window blinds was not limited to the decorative painter or the amateur, but was also an activity undertaken by professional fine artists. This demonstrates, yet again, the valuable and desirable currency of transparent illuminated effects. The artist, Paul Sandby, produced a series of picturesque designs for window blinds towards the end of first decade of the nineteenth century (see figs. 1.15 and 1.16). From the reference to a specific location 'Eastern Lodge', on one of the designs we can conclude that these watercolour sketches were commissioned rather than being speculative projects. Bespoke work always commands a higher price and suggests the customer was financially affluent and that transparent blinds could be found in the homes of the middle classes and above. In spite of the fact that only Sandy's designs have survived (and of course we do not know that the final blinds were ever executed), there is evidence that painted blinds possessed sufficient material durability and

cultural desirability to sustain repeated ownership. The Getty Provenance Database details the auction transactions for a successful sale in 1830 of an anonymously painted transparent blind depicting a group portrait of the ‘Late Royal Family’ which sold for ten pounds (*Getty Provenance Database Sale catalogue Br-13257*).

An article in the *Architectural Magazine* from May 1834, deals exclusively with the subject of painted transparent blinds and strongly recommends their functional and decorative benefits to readers:

Although the immediate object of these graceful decorations goes no further than, as a window blind, to shut out an unpleasing prospect, or the intensity of the sun, the taste, judgement, and ability of the painter, united to a commendable desire of excellence in his peculiar province, have infused into them so much of the higher requisites of art, that they are raised, immeasurably, above the common level of such productions. (“Transparent Window Blinds” 127-8.)

The author seeks to strengthen his case further by asserting that painted blinds also have the capacity to deliver finer, aesthetic pleasures and can therefore be considered suitable for the ‘libraries and boudoirs of the wealthy...’ (128). The author substantiates this claim through reference to the picturesque paintings of Claude Lorraine and recounts how he witnessed one Royal Academician’s (James Northcote) admiration for another artist’s (Joseph Stubbs) painting of Canterbury Cathedral on a window blind. However, whilst we can see that a considerable amount of effort is made to push the status of the transparent blind and persuade readers of its aesthetic qualities, it should also be remembered that the article appears in a publication primarily dedicated to the applied, rather than fine arts. The aesthetic credentials of transparent window blind painting, and transparent

imagery in general were never entirely secure. There was only a brief period in which fine artists experimented with techniques of transparency such as Thomas Gainsborough's exhibition box (Mayne; Birmingham *Sensation and Sensibility*).

Writing in 1819 about the life of Sir Joshua Reynolds, James Northcote looks back over fifty years of artistic practice and evaluates the development of transparent painting commenting that:

It should be noticed, that exhibitions of transparencies were at the time (c1769) quite a novelty, so much so indeed, that nothing of the kind had hitherto been seen; in addition to which, this was the joint work of the first painters in the kingdom, and therefore was viewed by the populace with astonishment and delight: since then, however, from the vast increase of artists in the nation, transparencies are become so common, that they are little thought of, and commonly very indifferently executed. (188)

Northcote's remark reveals that as transparent painting became increasingly popular at the end of the eighteenth century and on into the nineteenth century, it also became increasingly difficult for the fine art world of the Royal Academy to accommodate the medium. The popular success of transparent imagery was also the cause of its failure to pass the test of elite aesthetic credibility.

An example of the level of antipathy that transparent painting in general could provoke is found in the journalist, Charles Westmacott's, highly critical review of John Martin's submission, *The Pamphian Bower* to the Royal Academy exhibition of 1823:

Mr Martin's talent is wholly scenic, and not natural; for, to the lover of nature and correct taste, there cannot be a more offensive style; it is Loutherbourg out-heroded; extravagance run wild. In a theatre or on a glass window we might palliate such gaudy effects but in an Academy...it cannot be too severely censured. (qtd. in Craske *Art in Europe* 213)

No doubt Westmacott was aware of Martin's previous professional work as a decorative china and glass painter and perhaps this connection contributed to the reviewer's vigorous belief that the illumination of paintings was artificial, vulgar and could not be tolerated in a space devoted to serious aesthetic judgement and contemplation. Apparently the taint of popular entertainment inflected the heightened colours of Martin's work threatening the cultural and aesthetic consensus which bound together the world of the Royal Academy. In this particular case the ontological commitment engendered by the illuminated effects of transparent imagery and shared by a certain group of participants broke down when attempts were made to extend membership and widen the cultural field in which this illuminated aesthetic operated. Modes of behaviour and cultural expressions articulated through transparent imagery were, in this instance, not transferable or acceptable in the elite environment of the Academy. Instead the provisionality and limitations of these perceptual acts was revealed.

Evidence suggests that a key reason for making or purchasing this equipment for the domestic space was that upon installation there was a favourable change in perceptual experience, both of one's body and the immediate environment. An article from the *Economist and General Adviser* for 1824 recommends that for:

persons troubled with weak eyes, who cannot endure a bright light, this varnish, mixed with distilled verdigris, may be very useful. For shades or blinds, of paper or sarsnet, done over with it, will produce an incomparable green light, very agreeable to the sight. ("Of Painting Cloth, Cambric or Sarsnet for Window Transparencies" 214).

An American writer from 1839 stressed the benefits of the painted blind:

since the quiet, softened light which they admit to the apartment, and the various hues reflected from the paintings upon surrounding objects, counteract the injurious effects of a too powerful light, and present a very novel and pleasing effect. ("The Fine Arts: Window Shades" 270)

The Clarke House Museum in Chicago has fitted up a period room displaying a recreated window blind design from the 1840s. From a photograph of the space we gain an impression of what the perceivers cited above might have experienced from this mode of window fixture (see fig. 1.17). From these varied pieces of documentation we can begin to piece together how separate spheres of cultural expression and experience (in architecture, interior design, attitudes towards vision) were actually interconnected and necessitated a series of subtle negotiations based upon shifting perceptual preferences. Window blinds enabled two contradictory aesthetic desires to co-exist. Larger windows were fashionable, but this meant that greater, stronger quantities of daylight penetrated vulnerable interior spaces where valued furnishings were threatened by the sun's bleaching rays. Moreover, not only were inanimate objects at risk, it was also felt that inhabitants' eyesight could suffer. The solution was to process light, forcing it to pass through the painted transparent blind which intervened, guarding, but not sealing off the threshold of the home from the outside world.

Not only did the transparent painted window blind have impact upon physiological and perceptual experiences of the domestic space, but the formation of psychic attitudes was also affected. William D. O'Connor's short story, *The Ghost*, first published in 1856, slips from a register of the safe and familiar into the realms of supernatural threat by turning inanimate, everyday equipment of household window blinds into something capable of unfamiliar intentionality:

At the same instant he felt, and thrilled to feel, a touch, as of a light finger, on his cheek. He was in Hanover Street. Before him was the house—the oyster-room staring at him through the lighted transparencies of its two windows, like two square eyes, below; and his tenant's light in a chamber above! The added shock which this discovery gave to the heaving of his heart made him gasp for breath. Could it be? Did he still dream? (31)

This uncanny transformation of a house into a site of psychological disturbance is a classic device for the gothic genre, but what is interesting here is the role of the transparent blinds. The author introduces the metaphor of ‘staring’ transparencies and reinforces it with the explicit simile ‘like two square eyes’ causing the protagonist who looks at the windows to believe that they return his gaze. Via the illuminated painted blinds the house is empowered with the sense of vision and appears possessed. Practices of illumination penetrated the conceptual environment of the cultural imaginary as well as the perceptual and tangible domain of the domestic.

Five: Playing with Light

As already mentioned, the widespread popularity and success of transparent imagery was also, somewhat paradoxically its downfall. Edward Orme’s 1807 publication suffered similar criticisms to those levelled at the work of John Martin by Charles Westmacott. Pleasure, popularity and playfulness of the medium worked against Orme’s attempts to raise the status of transparent imagery to a standard equal with traditional painting. The *Monthly Review* took Orme’s luxury handbook to task and said, ‘to speak of the merit of this publication: it must be considered merely as a toy or plaything of art;-the amusement of an idle hour’

(Rev. "Orme's *An Essay on Transparent Prints*" 216). No doubt for Orme, this review with its critical reference to 'plaything' would have been far from satisfactory. However, for our purposes of perceptual analysis it reveals rather more than the author probably intended. To trivialise play would be to overlook a valuable interpretative resource because, as Johan Huizinga explains, 'It is through playing that society expresses its interpretation of life and the world' (46). Therefore, play is significant and has meaning. Primarily associated with childhood activities, play is nevertheless something adults also engage in and whilst most research on play is devoted to the relationship between play and childhood development there is a smaller body of work which addresses play in the continuing development of the adult. The rational recreations, philosophical toys and illuminated devices of the late eighteenth and early nineteenth century targeted at adult play are exemplary of mature, playful behaviour. Mihály Csíkszentmihályi makes the point that adult play is not the same as childhood play and takes a phenomenological approach proposing that adult play can be 'described as the merging of actions and awareness' (260). So that when the writer for the *Monthly Review* refers to Orme's publication on transparency as a 'toy' we need to consider what the implications of playing with light are for the cultural formation of perception.

If transparent painting possessed the qualities of a toy it consequently required a different mode of engagement from that associated with the traditional un-illuminated print or painting. Play is an event, it is something one does and encourages a heightened level of responsiveness. A frequent quality of play is the pleasure to be found in elements of surprise or unpredictability and the subsequent

decisions, assimilations and accommodations which are made in playful behaviour (Piaget). Therefore, the play object---in this case the transparent images contained within Orme's publication---has the capacity to act upon the user who must manipulate and adjust either the position of the image, themselves or a light source in order to achieve a successful level of illumination for the transparency in the image to appear. Although this ludic pastime cannot be described as a game in that there are no specific rules and it is not goal-oriented, it is fair to say that there was a playfully aesthetic aim or intent in the activity of painting and perceiving transparencies. The fact that it was not directed towards a singular goal gestures towards the very charm of transparent imagery. The inherent multiplicity and unpredictability in how transparent imagery could interact with individual and environment heightens the medium's playful charisma. Conscious of these pleasures, Orme provided guidelines to exploit the properties of transparent imagery, which if followed could relieve idleness and result in the production and appreciation of illuminated effects.

Idleness implies an absence of stimulation and a state of passive disconnection from the environment. Orme's book reverses this situation, provokes activity rather than passivity and re-engages the perceiver with their surroundings, 'The processes of exploration and familiarization, which must precede play with novel objects, new settings, unfamiliar events or unknown persons, are obviously associated with learning - that is, developing new conceptualizations for dealing with parts of the world' (Garvey 48). Through forms of play the book, and the medium of transparent imagery as a whole, were capable of causing shifts in experiential states. These forms of play can be broken down into aesthetic,

embodied and projective play. Aesthetic because transparent imagery was concerned with perceptual appreciation; embodied because the user needed to engage a number of sensory faculties, touching, seeing, and moving in relation to the image; and finally, projective because although the user was focusing on their bodily perception and the image, it was also necessary to have a peripheral awareness of the surrounding environment extending beyond corporeal boundaries. By taking up and finding the light in order to cause transparency within the image meant that the user had to respond to the illumination of a specific time and place. The act of play prolonged the physical contact between perceiver (frequently a female amateur) and object, but also offered up new somatic possibilities. In a ludic situation such as this Csíkszentmihályi says that:

there is usually *immediate feedback*. It is clear when you are doing right or wrong. In tennis you know whether the ball went in or out of the court. In climbing you know whether you are still on rock or you're falling. You're always getting feedback related to the goals of the activity. (260 original emphasis)

For the play involved in transparent imagery 'feedback' occurs between place, painting, person and light. Influenced by the work of de Certeau, Ben Highmore explains that play can provide an alternative model in which structure and subjects are both simultaneously accommodated:

Games, and play more generally, cement a link between narrative and everyday life by conceiving of the field of culture as simultaneously rule-governed as well as endlessly mutable. It also conceives of the social subject as a 'player'; someone who, potentially at least, is skilled in the arts of the everyday, who is experienced in the various moves that work best in a given situation. (128)

Plunkett notes about the use of domestic furniture which incorporated transparent images such as fire screens that, 'the architectural function of the screen was being superseded by its visual decoration and entertainment value' (179). Therefore, an early nineteenth-century version of Highmore's 'player' became 'experienced in the various moves that work best in a given situation' where the aesthetic manipulation of ambient light was concerned. Moreover, these were the years in which optical toys and entertainments proliferated at an unprecedented rate and whilst this text does not look in any detail at artefacts such as the kaleidoscope, diorama, stereoscope (patented by Sir Charles Wheatstone in 1838) and cosmorama (c.1821), it is still crucial to situate transparent imagery within this wider and developing field of perceptual play. All of these objects provided new ways in which the act of perception could adjust to changes in the environment and the atmosphere.

A significant perceptual variation in the mode of transparent visuality was the transparent lithograph or 'protean view' which was developed throughout the 1830s and 1840s. The main producer of this type of imagery was the publisher, William Spooner, active between 1820s and 1840s. Unfortunately pin-pointing accurate years of execution is not always possible as the lithographs were often undated and unsigned. Nevertheless, some general dating is possible on occasions when Spooner chose to depict events such as Queen Victoria's Coronation. The hand coloured lithographic prints were titled 'protean views' because they possessed a novel capacity to change appearance. Under ordinary lighting conditions, i.e. where the majority of available light falls upon the recto surface the item appears no different from normal prints (lithographic or otherwise).

The protean aspect of the print is triggered when a stronger and more direct light source is positioned behind the print. As we have already learnt, back-lighting was not a new phenomenon, *vues d'optiques*, prints by Ackermann and Orme all used back-lighting to enhance a sense of depth and strengthen effects of colour contrasts. There is then a sense of various media, such as dioramas, dissolving views for the magic lantern, domestic transparencies and protean views all exchanging, appropriating and adapting techniques of back-lighting. However, the protean view offered something else, a different, previously invisible secondary image. This new mode provoked a particularly vigorous engagement between the perceiver, artefact and environmental illumination.

Whilst there are clear technical and aesthetic similarities between the protean view and its forebears, there are also a number of crucial differences. *Vue d'optiques*, Ackermann's, and Orme's prints all sought to use perception in order to create a confusion of material status and value between qualities of glass and paper which supported the image. The effort was to turn paper, a cheaper material, into something that approximated the qualities of painted or stained glass, a more costly material. However, this was not the case with the lithographic transparent print. In order to maintain a clear gap between the visible and invisible image, a greater amount of tension between qualities of opacity and transparency was necessary. Rather than using isolated, varnished and/or perforated areas of the image for the depiction of glowing lamps or fireworks, the secondary transparent lithographic effect produced an entirely new subject visible across the whole surface of the paper.

Like the diorama, the subject matter for protean views followed a fairly standard range of formats; landscapes, (snowscapes in particular), were favoured. The predominance of white meant that the first scene generated a considerable amount of surface reflectance which produced an effect of greater contrast when the subsequent scene was revealed through back-lighting. This secondary image was often a night scene, thereby capitalising on the fainter, dimmer image that had to work its way through the paper support. Landscapes or cityscapes combined with natural disasters provided ample opportunity for sensational visual effects. Mount Vesuvius both dormant and erupting, the Houses of Parliament intact and on fire, were two such momentous subjects chosen by Spooner. In addition to landscapes and natural disasters, state occasions and recent military events were also regularly depicted featuring figures such as Queen Victoria, Napoleon and Wellington. The drama of transition between defeat and victory was particularly well suited to this visual technique.

In fig. 1.18 our attention is drawn and held by the discrete and intense areas of action and colour provided by the figures and vehicles in the central field of the image. When back-lighting is introduced (see fig. 1.19) we witness a dramatic change to a night-scene in which two tunnels recede into the side of an imposing hill. We have moved from picturesque landscape to associations of the industrial sublime where themes of modernity, engineering and speed dominate the environment. The impact of the subject matter is compounded by the perceptual adjustment we are forced to make between the shifts in balance of ambient to transmitted light. The urban environment of early nineteenth-century modernity generated a proliferation of new and previously unexperienced view points.

Adapting and orienting the body to these different spatial opportunities required the acquisition of new perceptual knowledge. Therefore, the protean view can be understood as a perceptual tool in the formation of the modern subject and their adaptation to new conditions of life.

When Gibson proposes that, 'if there is information in ambient light to specify substances, solid objects, and surface layouts there is information to specify their affordances for eating, for manipulation, and for locomotion, that is for behaviour', he is in fact asserting that ambient light is a fundamental aspect of perceptual consciousness. Gibson goes on to say that when an observer, '...perceives manipulability he perceives it in relation to his hands, to which the object or tool is suited...This is only to reemphasize that perception of the environment is inseparable from proprioception of one's own body - that egoreception and exteroception are reciprocal' (*The Theory of Affordances* 79). A decision of engagement is made---the light observed and assessed---the transparent object is placed in the light and perceptual appreciation occurs between light and permeability of surface. A desire for an aesthetic, playful experience from the lithograph affords a continuity of contact between the perceiver's own interior and exterior corporeal consciousness via an awareness of the illuminated environment. The act of opportunistically seizing and co-opting available light is equivalent to de Certeau's concept of the everyday covert and transient tactic in contrast to dominant strategic behaviour of institutional and enduring social structures. De Certeau's insights into the 'microscopic, multiform, and innumerable connections between *manipulating* and *enjoying*, the fleeting and

massive reality of a social activity at play with the other that contains it' bears a striking resemblance to the acts associated with transparent imagery (xxiv).

Interaction with the transparent lithograph was an individual, everyday act that did not directly operate or influence powerful overarching social or institutional structures. Nevertheless, the illuminated transformation of the transparent lithograph did provide a unique way of reconfiguring the user's view onto the world. Events of national social significance (such as military victories or royal ceremonies) were at once drawn down to a level of individual identification, personalization and control. The phenomenon of individual agency was not simply limited to the perceiver's experience. I argue that the non-human factors of image, environment and light also possessed agency and acted upon the perceiver. Such a possibility is supported by Gibson's theory of affordance (1977) and from a different angle, Actor-Network-Theory, which emerged from the discipline of the sociology of science and was developed by a number of researchers, including Bruno Latour. He says of things such as hammers and nails, (but we could equally take that to mean a transparent image, candle-light or window) that they:

might authorize, allow, afford, encourage, permit, suggest, influence, block, render possible, forbid, and so on. ANT is not the empty claim that objects do things 'instead' of human actors: it simply says that no science of the social can even begin if the question of who and what participates in the action is not first of all thoroughly explored, even though it might mean letting elements in which, for lack of a better term, we would call *non-humans*. (72)

The artefacts of transparency afforded new sensory points of contact with and manipulation of the wider physical and cultural landscape of urban life. The flickering, dissolving, fading, re-appearing protean views, and the transparent

household fixtures and fittings of lamps, screens and blinds all influenced how new technologies, industries and devices were perceived in the intimate space of the middle-class home. The class specific domestication of light was not a closing down or turning away from the modern world, but was instead an imaginative attempt to harness and control this new energy. Indeed, if we look beyond the perimeters of the perceptual / cultural field and look across to a political frame of reference, we find that qualities of agency continued to operate there. Otter makes a compelling case for the need to reassess previous Foucauldian historicizations of vision determined by discourses of spectacular and disciplinary power structures. Otter believes that developments in artificial lighting should be understood 'as part of a material history of Western liberalism' (2). Given that the project of liberalism maintained that 'a society could be deemed civilized only to the extent to which its citizens were acting under their own volition' (11) we can begin to see how individual perceptual agency expressed through the playful articulation of light was connected to wider shifts in the socio-political landscape. Although distinct, domestic transparent imagery was not alone in its ability to offer perceptual experiences which ran counter to new systems of institutional regulation. As we have seen, optical toys provided opportunities for speeding up, slowing down, stopping, starting, moving forwards and backwards. All of these actions were at the behest of the individual rather than, for example, the systematic imposition of railway time upon the nation.

Don Ihde makes the point that 'perception can be both "microperceptual", as in our sensory bodies, and "macroperceptual", as in the cultural perceptions of our sedimented fields of lifeworld acquisition' (7). The convergence of transparent

imagery, perceiver, domestic setting and technologies of illumination belonged to a cultural set of overlapping and mutually affecting associations which was particular to the early nineteenth century and suggests that domesticity, gendered subjectivity, popular aesthetics and technologies of industrialisation should not be understood just as deterministic social structures or as overbearing discourses of power. Instead it has become possible to identify that sets of historically specific agreements were shared between human and non-human actors. These agreements were reached by testing out the strength and limits of cultural values such as taste, gender, class. Domestic transparent imagery was playful and pleasurable, but equally testing. The pleasure was predicated not just on a desire to control the modern, urban environment, but also and more interestingly on a desire to successfully adapt to the contingency of situations thrown up by this environment. Therefore, perceptual and aesthetic experiments in light were also experiments or trials in subjectivity in which a loop of illuminated aesthetic energy existed between perceiver, medium and environment allowing a continuous attunement and adjustment to the world. Domestic transparent imagery offered unique solutions to the problems, challenges, and opportunities of how to live as an individual, how to negotiate expectations of gender and class identities, and how to move between private spaces and participate in the wider cultural life of early nineteenth-century society.

Chapter two

Making Sense of Domestic Light

Every sensible object in the phenomena of surrounding nature, must necessarily be contained under some external form and appearance. But as it is desirable that the eye should be pleased, and the imagination gratified, the particular figure under which a thing presents itself can never be a matter of indifference. (*The Practical Cabinet-Maker and Upholsterer and Complete Decorator*. Nicholson 1826: v.)

To accompany the new technologies of oil and gas lighting auxiliary sets of associated materials and procedures proliferated. The domestic transparent imagery discussed in the previous chapter is only one example of the fashionable aestheticization and commodification of light which, I suggest, signifies a playful engagement and negotiation with aspects of modern, urban life. Observing and interpreting the small, subtle instances of quotidian illuminations continues to be the project of chapter two, for as the cabinet-maker Nicholson asserts in the above quotation, nothing is ever ‘a matter of indifference’; the object, its presentation, its use and re-use is never neutral or insignificant, there is always intention.

Approaching household equipment such as window curtains and polished furniture with this attitude in mind enables the creative, improvised and opportunistic re-appropriations of social order to be decoded (xi-xxiv).

The first section, ‘Designing and Paying for Light’, establishes key architectural and legislative contextual forces which had an impact on the appearance of the drawing room. Late eighteenth-century stylistic developments in architecture favoured larger and more numerous windows but whilst embracing

these new designs householders also came up against the continuing burden of window and glass taxation. The public opposition to window taxation and the desire for larger windows accompanied by decorative embellishments struggled against tax legislations on windows and glass, which I argue indicates the extent to which daylight came to be understood as a valuable resource during the first half of the nineteenth century.

'Curtaining the Drawing Room', the second section, analyses the relationship between the enlarged window and the new fashion for curtains or window drapery in the nineteenth-century middle-class drawing room. The cultural significance of this new household feature is established through analysis of pattern books, fashion periodicals and design treatises which articulate the evolution and dissemination of styles, marks the changing status of design practitioners and details the function and aesthetics of window drapery. The section concludes with an assessment of what these elements, when assessed together, tell us about the perceptual experience of dwelling in an environment of curtained illumination.

Section three, 'Desiring Muslin's Transparency', focuses on the significance of this fabric within the overall development of window drapery. Muslin's commercial trajectory from the transition of an elite and expensive import to a popularly fashionable and more affordable domestic commodity is an overwhelming indication of the cultural desire for this material's capacity to produce effects of transparency. Muslin's performance within the illuminated atmosphere of the home was celebrated for its ability to filter, diffuse and refine light and that the

material was used to shape perceptual consciousness, subtly accommodating pressures and opportunities of the early nineteenth-century urban environment.

The fourth section, 'Being Transparent', extends the investigation of muslin's significance with an analysis of why the material was used to form perceptual bonds between windows, women and illumination. I argue that because muslin produced an aura of diffused and softened light in the adornment of both windows and women there also existed a desire to conceptually superimpose the transparency, insubstantiality and ephemerality of light's passage through windows onto a conception of womanhood which idealised qualities of pliable evanescence. Women were also encouraged to emulate the prized properties of muslin's transparency via the genteel and gender specific activity of embroidery, an intimate and tactile leisure pursuit through which skills of dexterity, subtlety and patience were learnt. There was a cultural drive or willingness to transfer muslin's qualities into female dispositions of appearance and behaviour. Perceptual encounters with an inanimate substance were used to mould female embodied consciousness.

In the penultimate section, 'Ornamental Lighting Effects', I widen my discussion about ambient lighting effects to include other domestic objects, materials and surfaces within the drawing room. Although glass objects such as chandeliers and tableware were a significant part of the luxury commodity market and were very much intended to capture, alter and enhance light, I will not, however, be focusing on their role within domestic sphere. For an in-depth discussion of this material, Armstrong's *Victorian Glassworlds*, provides an insightful, thorough and phenomenologically sensitive reading of glass in the nineteenth century. As a complement to and development of Armstrong's work I

argue that the increased popularity of techniques such as varnishing, veneering and gilding, the appropriation of French polishing and the invention of lithophanies during the 1820s resulted in an unprecedented ornamentation and aestheticization of both daylight and artificial light within the domestic environment. Effects of reflection and refraction drew the eye *and* the body towards and through the space of the drawing room by manipulating, extending, distorting and decorating the habitat with a complex and constantly altering array of illuminated attractions. The cultural exploitation of light's inherently dynamic properties meant that the early nineteenth-century experience of middle-class and elite dwelling was one of pleasurable heightened aesthetic contingency. Perceptual fluidity in the interior was an unthreatening, pleasant and domesticated variation of the more extreme and rapid changes of modernity taking place in the world beyond the drawing room.

However, the contingency created by the fluctuating aesthetic behaviour of new possessions was capable of producing problems as well as pleasures. The last section, 'Terrible Lustre', questions what pressures caused the evaluation of transparent and reflected effects to fall from a valued position of esteem to one of condemnation. Cultural commentators, art critics, philosophers and novelists were some of the many voices to accuse consumers, particularly female consumers, of exhibiting a preference for too much transparency, glitter or glare. These judgements demonstrated an increasing need to control the contingent effects of illumination by carefully managing the quantity and quality of illuminated effects; the decorative arrangement of the drawing room had to be curated and women required cultivation. Without these measures the drawing room and its commodities could threaten to destabilize cultural structures of taste and morality.

One: Designing and Paying for Light

Although daylight originates from the purely natural source of the sun's rays, its existence as ambient light is always affected by atmospheric and environmental conditions, as Gibson explains through his ecological theory of light:

The only terrestrial surfaces on which light falls exclusively from the sun are planes that face the sun's rays at a given time of day. Other surfaces may be partly or wholly illuminated by light but not exposed to the sun. They receive diffused light from the sky and reflected light from other surfaces. A "ceiling" for example, is illuminated wholly by reflected light. Terrestrial airspaces are thus "filled" with light; they contain a flux of interlocking reflected rays in all directions at all points. This dense reverberating network of rays is an important but neglected fact of optics, to which we will refer in elaborating what may be called *ecological* optics. (*The Senses Considered as Perceptual Systems* 12)

In the growing urban environment of cities such as London, Birmingham, Bristol and Manchester the reverberation of light rays was particularly dense due to the increasing complexity of exterior and interior structures (Dyos & Wolff). As light passed along, through and off the fabric of the city the multiple angles, surfaces, patterns and materials of these new human geographies created entirely new percepts of ambient light. Whilst every space was touched by a nuanced quality and movement of light there were certain spaces where manipulation and consciousness of light were notably higher. The transition of light from the public space of the street into the semi-private social space of the drawing room was one such location in which perception was attuned towards the experience of dwelling in light.

Throughout this chapter I argue that the co-existence of sociability and decorative illumination was not coincidental but rather that there was a direct perceptual correspondence between practices of sociability and practices of illumination. New structural and stylistic changes in the social space of the drawing room meant that natural and artificial light was more intensively mediated here than in any other room of the house. And it was also in this space ‘that the graces of social intercourse are chiefly displayed’ explained the writers of *Domestic Duties: Or, Instructions to Young Married Ladies, on the Management of Their Households, and the Regulation of Their Conduct in the Various Relations and Duties of Married Life*, an 1825 guide for middle-class women on matters of etiquette and household practicalities (49). But, before light filtering objects such as curtains, lampshades and lithophanes, in addition to reflecting objects such as mirrored blinds, highly varnished and polished objects are discussed it is necessary to consider how the actual aperture and frame of the window fitted into the surrounding architecture of the Georgian townhouse and how it contributed to lighting practices within the drawing room.

In the eighteenth century the standardised unit of urban accommodation, the Georgian townhouse, increasingly came to dominate the nation’s cityscapes. The repetitive symmetry of the tall, narrow facades with rectangular sash windows was matched by an interior floor plan of deep rooms which rarely diverged from a straight forward somewhat formulaic arrangement. The breakfast room and dining room were often placed on the ground floor with the latter often being positioned towards the rear of the property. When cheaper, many-storied houses were constructed on narrow streets the ground floor would inevitably suffer from a lack

of daylight. Therefore the social space of the drawing room was normally located on the first floor at the front of the residence. This higher position would allow a slightly greater quantity of light to penetrate the space. Subsequent floors were allotted to bedrooms and servants' quarters. Between 1750 and 1830 the design of townhouses moved from a Palladian format to the more restrained and austere manner of Neo-Classical and Regency styling epitomised in the work of the Adam brothers. An enlargement of the surface area given over to windows accompanied these changes. Early Georgian townhouse windows tended to use shutters or Venetian blinds which, as I will go on to discuss, were replaced with window drapery around the turn of the century. Georgian townhouses tended to be painted or papered in pale colours thereby maximising any available light within the rooms. In addition to this the presence of luxury items such as mirrors, chandeliers, silver and glassware in the rooms of more affluent households had the effect of catching light from the windows (Melchoir-Bonnet).

Girouard, ties the architectural trend of increased window size to contemporaneous discourses of the picturesque explaining that:

people began to feel that the main rooms of a house should be in touch with the outside world – not just by views through the windows, although increasing attention was paid to these, but also by means of having the rooms at ground level, with low-silled windows or actual French windows opening straight onto the garden or lawn' (*Life in the English Country House* 214).

A key exponent of the new controlled permeability between interior and exterior environments was Repton. *A Cedar Parlour and a Modern Living-Room* illustrated in his book *Fragments in the Theory of Landscape Gardening* (1816), succinctly captures changing fashions in the drawing room and the correspondence between

alterations in lighting and sociability (see fig.2.1). The ‘before and after’ visual device not only seeks to measure change in the social use and design of the drawing-room, but also aims to mark Repton as a stylistic leader. The upper image, devoid of human life, depicts an eighteenth-century interior, whereas the lower image represents a modern room, filled with light and animated by social activity. Gone are the shutters, the two windows have been knocked through into one and the room dramatically extended by the construction of a conservatory to the rear.⁹ A limited presence of fabric adorns the window cornice and acts as embellishment of the new, larger window area, and anticipates the subsequent fashion for abundant drapery. The move from minimal to multiple drapes will be explored more deeply in section two and three.

The new preference for larger, more numerous windows and lighter rooms was not restricted to country homes, urban building projects also favoured increased window frontage. The architect, John Nash, who worked with Repton between 1796 and 1802, imported Repton’s picturesque coupling of architecture and landscape into a metropolitan setting. Nash’s Regent’s Park *rus in urbe* project, conceived in 1811 and executed in the 1820s, integrated individual elements of landscape gardening, rural styled villas and urban terraced houses into one unified architectural vision. Incorporated into this aesthetic agenda were picturesque, highly selective and idealised views of the city framed by the enlarged floor to cornice windows. In *Rural Urbanism: London Landscapes in the Early Nineteenth Century*, Arnold underlines a political and aesthetic relationship of continuity, rather than separation between the spheres of city and country, stating

⁹ For discussion of the conservatory’s significance as a new building form in the nineteenth century see Armstrong (*Victorian Glassworlds*).

that 'Regent's Park took the idea of ideal communities beyond the urban frame of reference to include elements of country house estate planning' (6). Arnold's re-framing of architectural history is significant because it brings together an analysis of rural and urban architecture rather than seeking to separate city from country (Girouard *Life in the English Country House; Cities and People*). Sources such as Ackermann's monthly fashion periodical, the *Repository of Arts*, which showed illustrations of country residence interiors and Loudon's *Encyclopedia of Cottage, Farm and Villa Architecture* (1833), were both relevant to urban stylistic developments. Section two will detail how sources such as these stimulated an urban taste for enlarged windows and drapery through which picturesque views were constructed and accompanied by the illusion of abundant country air and light.

Aesthetic interest in windows coincided with political and economic attention to this architectural detail in the first decades of the nineteenth century for, as Anne Friedberg explains, 'windows were a measure of property and wealth, indicating the ideology and privilege of those possessing a window-view' (340). The taste for greater quantities of windows and window adornment was accompanied by a heated public campaign against the historic system of window taxation on grounds of economic injustice and health concerns. Although this thesis does not directly tackle socio-economic matters of parliamentary administration it is, however, necessary to briefly outline what window taxation was and why it was an important factor in the cultural practice of illumination. Originally introduced in 1696 as a temporary measure to offset the cost of recoinage and as a replacement for the hearth tax, the window tax remained on the statute books for over a hundred and

fifty years (Ward). The window tax was more unpopular than other methods of taxation because the financial burden was felt to be unfair, falling more heavily upon the working and middle classes because householders rather than landlords were taxed according to the number of windows on the property. According to the author of *The Absurdity and Injustice of the Window Tax* (1841), the criteria of taxation resulted in an ‘unaccountable favouring of the RICH’ (Humberstone 6). In *A History of Taxation and Taxes in England*, Dowell states that up until 1825 ‘for houses with - not more than seven windows, the charge was 1l; not more than eight, 1l.13s; not more than nine, 2l.2s; not more than ten, 2l.16s’ (198). This system of assessment meant that many householders resorted to blocking up windows and depriving themselves of daylight. One example of this is the Reverend James Woodforde who, in a diary entry for the year 1784, recorded how he bricked up three windows in order to avoid liability for the higher tax bracket (157). Further costs associated with access to daylight were incurred due to the additional taxation on glass which forced a double tax on daylight, transforming its presence into an elite luxury.

Public opposition to the tax was strong and persistent, as demonstrated by regular meetings at which petitions were drawn up and pamphlets were written, all with the aim of forcing an alteration of parliamentary opinion. In 1796 an anonymous author put forward their thoughts in a pamphlet entitled, *One who Wishes To Be Thought A Good Subject...An Original System of Taxation; or General Contribution, by way of Stamp Duty offered as a Substitute for the Window Tax*. The author is highly critical of the system:

[taxation is] in compatible [sic] with the intentions of our Almighty Creator, who gave the light as one of the most inestimable of his abundant and infinite blessings, for the benefit and enjoyment of us all, and to which we have all an equal and a natural, as well as unlimited, and unrestrained claim: a blessing! Much too sacred, and much too divine, to be made subject to taxation, for human purposes' (28).

A momentum for reform gathered pace and by 1825 public meetings seeking to generate a critical mass of resistance were held up and down the country. An editorial in *The Times* about a "Public Meeting" in Liverpool reported that all who gathered 'agreed to petition the legislature for the repeal of the window-tax...it deprives the necessarily crowded population of cities of air and light and consequently is very detrimental to their comfort and health.' Lobbyists came to refer to the issue as the 'light and health tax' thereby making a direct connection between health and the quality of air and light. In 1844 the *Builder*, the leading periodical for professional architects and builders, printed an account of a meeting between Dr Southwood Smith, head of the Metropolitan Improvements Society, and the Chancellor of the Exchequer about proposed changes to the window tax. In it the doctor refers to the 'pure air and light of heaven' and stated explicitly that 'air and light were as essential to a healthful condition of animal life as food' ("Proposed Modification of the Window Duties" 224). In 1845 the taxation of glass was lifted and after a succession of unsuccessful attempts to abolish the window tax, lobbyists eventually won out; on the 24 July 1851, inhabitants ceased to be taxed on their windows. As if in anticipation of this de-regulation of daylight the Great Exhibition's Crystal Palace, a monumental structure of glass and cast-iron, opened to the public on May 1 that same year.

The relationship between civic improvement, illumination and its affect upon the process of urban vision has been handled by Otter. But, whilst he touches upon how socio-economic distinctions in lighting and atmospheric qualities, such as industrial smoke (82-86), were endemic to regions of cities, he fails to include in this story the socially progressive project to dismantle the window tax. Otter is not alone in a failure to address the significance of the window tax; Armstrong's extensive analysis of glass culture also overlooks the implications of window taxation. I argue that because the taxation on both windows and glass unavoidably incorporated daylight into the equation of taxable resources it meant that the legislature's intervention into the nation's exposure to daylight affected day to day experiences of habitation, the appearance of the built environment, and attitudes towards sanitation, health and human productivity. That the public's intensely negative response to the fiscal administration of daylight occurred at the same time as a new fashion for increased window size demonstrates a further facet to the new and acute sensitivity to light which ran alongside the onset of serious atmospheric pollution (often caused by artificial lighting), and the attendant efforts to introduce smoke abatement policies (Brimblecombe 101). Legislative, industrial, technological and architectural developments in lighting practices combined to form the wider context which supported and shaped everyday experiences of the drawing room.

Two: Curtaining the Drawing Room

Scholarship dedicated to the history of curtains is limited. Samuel J. Dornsife's article, "Design Sources for Nineteenth-Century Window Hangings" and Clare Jameson's book *Pictorial Treasury of Curtains and Drapery 1750-1950* both chart stylistic and technical developments. However, no sustained or detailed work into the cultural significance of early nineteenth-century window drapery exists. Passing reference to window curtains is made in works by Sparke, Schivelbusch and Gordon who are concerned with the later cultural history of interior design. Further fleeting references to the use of curtains are made by Thornton who notes that 'many windows did not have curtains at all until well into the eighteenth century' (23). The art historian, Ann Hollander, provides additional clarification on the emergence of the window curtain in the nineteenth century:

Window curtains... had never been a feature of earlier luxurious dwellings. They tended to be functional extensions of wall hangings if they existed at all, and their decorative draping was not thoroughly explored until the Neo-Classical taste began to celebrate the catenary. This is the shallow curve formed by a cord or cable (or drape) suspended from two points and pulled gently downward by its own weight. Repetitions of this curve expressed in draped fabric formed one of the principal decorative motifs of the early nineteenth century. (*Seeing Through Clothes* 67)¹⁰

The early nineteenth-century emergence of window drapery as a luxury fashion belonged to a larger and equally new system which, as discussed in chapter one, came to be known as interior design. In this nascent discipline a comprehensive and integrated aesthetic practice began to be applied to sofas, chairs, tables, wall

¹⁰ An example of how the decorative catenary might be used around a window is seen in the Repton print referred to in the first section (see fig. 2.1).

colourings and window draperies. For the first time rooms and their contents were treated as unified spatial entities. In a diary entry for 1783 the Reverend Woodforde recorded a visit to the home of the Townsend's where he drank tea in their drawing room and was sufficiently impressed by the appearance of the room to note that the same kind of silk was hung from the walls and used to upholster the chairs (143). Integrated room treatments like that mentioned by Woodforde began to be seen in publications such as Thomas Sheraton's highly influential four volume text, *The Cabinet Dictionary* which ran to three improved editions (1791, 1793 and 1802) and also led to spin-off publications such as *The Cabinet Makers Dictionary* (1803) and *The Cabinet Maker, Upholsterer and General Artists' Encyclopedia* (starting in 1804). Fig. 2.2 shows Sheraton's interest in approaching the arrangement of the drawing room as one entire spatial unit and also includes attention to window drapery.

Like Sheraton, Hope's *Household Furniture* also worked towards an aesthetic of unified design.¹¹ Fig. 2.3 is plate 7 from Hope's book which represents the Aurora Room, named after a sculpture by John Flaxman entitled *Aurora Abducting Cephalus*. The abundant quantity of drapery is drawn back to reveal not windows, but mirrors which are framed by black velvet providing a strong tonal contrast to the white marble of Flaxman's figures. Further evidence of Hope's attention to material qualities and their ambient lighting effects is found in his comment about a picture frame which he thought 'remarkable for the play, or rather

¹¹ In her essay "Aristocratic Identity: Regency Furniture and the Egyptian Revival Style", Abigail Harrison-Moore emphasizes Hope's acknowledgement 'that objects are signs of appropriate cultural capital; they carry with them "meaning"' (120). I would extend Harrison-Moore's observation to include Hope's conscious manipulation of lighting effects as carriers of cultural value.

the flicker, of light and shade, which it derives from the sharpness of its multifarious angles, and from the reflexion [sic] of its numerous facets' (19). Objects such as furniture, picture frames and mirrors will be addressed more fully in section five and six, for the moment it is sufficient to note Hope's attunement to the performances of these objects in his project of interior design which visualized an overarching conception of interior space that supported the daily contemplation of art and proposed nothing short of a new model of aesthetic living.

Hope's text was well received and its success is demonstrated by George Smith's opportunistic and swift act of plagiarism; in 1808 he published, *A Collection of Designs for Household Furniture and Interior Decoration*. From this point on the print market became increasingly diverse and profitable through production of an expanding range of publications that catered for middle-class consumers in addition to tradesmen and upper class enthusiasts. Instructions manuals frequently emphasized the intellectual acuity necessary for such endeavours in an effort to elevate the practice to an equal position alongside a fine or liberal art.¹²

Evidence of endeavours to elevate the status of window drapery was not limited to trade publications. In the poem, *The Gentleman Farmer* (1812), George Crabbe employs window drapery as a material indicator of Gwyn, the gentleman farmer's cultural sensibilities:

In full festoons the crimson curtains fell,

¹² For examples see: John Stafford's *A series of Designs for Interior Decorations* (c.1814); *The Practical Cabinet-Maker and Upholsterer and Complete Decorator* by P. Nicholson (1826); J. Stokes' *The Complete Cabinet Maker, and Upholsterer's Guide* (1829); and Thomas King's *The Upholsterers' Accelerator: Being Rules for Cutting and Forming Draperies, Valances, turned the practice of drapery into a quasi-science, including detailed descriptions and instructions for perspective drawing, complicated calculations of geometry and diagrams* (1833)

The sofas rose in bold elastic swell
 Mirrors in gilded frames display'd the tints of glowing carpets and
 Colour'd prints,
 The weary eye saw object shine
 And all was costly, fanciful and fine. (51)

Colin Winborn notes that the poet implies Gwyn's new cultural sensibilities are not appropriate for animal husbandry, they 'smack of the foreign' and indicate an unhealthy dependence on luxury commodities (102). Indeed, Crabbe's persona appears sensorily overwhelmed and exhausted by the experience of dwelling amongst such opulent surroundings. In this over-stimulated state the 'weary eye' moves around the room passing from the abundant amounts of richly coloured curtains and alighting on other domestic finery that glows, shines and reflects. The last line of this excerpt exposes the close relationship between money and taste involved in the room's materiality. Crabbe's reference to the 'full festoons' points to a trend of non-functional window drapery in which greater quantities of fabric were accompanied by the execution of increasingly complex techniques for displaying abundant folds of fabric around the window frame. Section six will return to issues expressed in this poem about the aesthetic ambivalence and cultural status of luxury commodities and their material attributes.

Provincial fashionability such as that described in *The Gentleman Farmer* was only possible due to the growth in the production and circulation of publications which represented and advertised the nascent commercial and aesthetic discourse of interior design which developed new terrains of expertise, rules, theories and methods of analysis. In addition to curtain designs featuring prominently in the growth of artisans' trade manuals, curtain treatments also

assumed a fashionable commodity status in publications such as Ackermann's *Repository*. The luxury commodity market was now also providing both stylistic assistance and inspiration for the successful display of window drapery.

Ackermann's activities as an innovator and publisher of transparent prints has already been explored in chapter one, but his additional promotion of window drapery and women's fashion reveals a deeper aesthetic appetite for effects of transparency which ran continuously throughout these products targeting predominantly female elite and middle-class consumers. Birmingham says of Ackermann's *Repository* that:

By about 1812 a change in the content signalled a new and more exclusively female readership. Articles on fashion and cultural events proliferated and replaced the more "masculine" subjects. Increasingly, the *Repository* presumed an audience of female readers hungry for news of London and not able to gratify their desires with easy access to the metropolis. In this sense, the success of the *Repository* was directly linked to the evolving role of the middle-class women as consumers and their removal from the economic sphere of commerce and production. (*Learning to Draw* 140)

In between articles on a diverse range of subjects Ackermann included coloured illustrations depicting the latest clothing styles, new modes of interior design and advertisements for textiles. Fig. 2.4 from 1816 offers a visual counterpart to the interior scene in Crabbe's verse. Whilst the vertical curtains do not follow a festoon style of hanging they are nevertheless full and crimson. At the cornice a unifying design joins four separate windows with a swagged valance of gold. Fig. 2.5 is another example of an advertisement aimed at Ackermann's growing female readership. It used a standardized framing design within which a variety of

products were set and displays two types of lace inviting the reader to draw qualitative, perceptual comparisons between the two samples. The swatch on the right is manufactured by the advertiser and juxtaposed with a rival but presumably inferior brand of lace. Attention is directed towards the individual threads, the space between threads, the way in which they touch each other, the evenness, patterning and weight, which were all criteria for assessing the merits of fabric. Crucially most, if not all of these elements were directly concerned with the fabric's relationship to and interaction with light. The fact that the page overleaf is visible through the lace samples highlights the inherent qualities of the textile. A marketing strategy such as this directly sought to engage sensory faculties encouraging the reader to both touch and look closely at and through the textile on the page. In Ackermann's publication the reader experienced for themselves a foretaste of what they could expect upon purchase of the material. The discrete detail focuses perceptual attention and demonstrates possession of subtle and discerning levels of sensory literacy that readers' literally had at their fingertips enabling them to assess qualities and effects of materials as indicators of value.

Domestic window treatments featured as copy as well as advertising material within the periodical. On the subject of window dressing Ackermann proclaimed in 1809 that:

in no department of furnishing has the inventive power of fancy been more assiduously employed, than in the disposition of draperies for windows, beds, alcoves and other suitable objects. It is the elegance and lightness of drapery that have given reputation to the most famous sculptors.
("Fashionable Furniture" 255)

These were strong claims indeed. The first sentence invokes the imagination through the words ‘inventive’ and ‘fancy’, suggesting that creativity rather than formula was the motivating force to production. Ackermann’s interpretative manoeuvre attempts to hook the artistry of design to the larger aesthetic movement of Romanticism which celebrated the notion of the creative individual that peaked in the cultural consciousness of this period. Ackermann then goes on to invert the traditional hierarchy between the fine and applied arts by the assertion that qualities of drapery inspired and secured the reputation of ‘the most famous sculptors’. His agenda sought to raise the status of design through association with the more highly esteemed discipline of fine art, which at this period was also using drapery, particularly muslin, as a material vehicle for aesthetic themes of Romanticism and Neo-Classicism. Muslin’s qualities of weightless transparency were well suited to express Romantic values of natural, unrestricted and effortless movement and equally well suited for Neo-Classical appropriations of recent archaeological discoveries of antiquities. The interconnected themes of transparent drapery and sculpture will be pursued in greater depth when, in section four, the subject of female subjectivity is introduced into the overall analysis of how lighting practices shaped experiences of domesticity.

Ackermann’s bid to establish cultural credibility for the magazine’s commodified content was supported further by his reliance upon the well-established association between fashion and France. Reports of the latest French fashions frequently appeared in the pages of the *Repository* and it is more than likely that Ackermann was also familiar with one of the most influential French pattern books *Recueil de décoration intérieure concernant tout ce qui rapporte à*

l'ameublement, by the architect and design partnership of Charles Percier and Pierre Fontaine.¹³ Thornton identifies this work as ‘the earliest important title to embody the term ‘interior decoration’’ (12) because of the extent to which Percier and Fontaine sought to integrate elements of furniture design into an overall aesthetic conception of interior space. Fig. 2.6. depicts plate 15 from the 1812 volume and shows a series of designs influenced by the recent Napoleonic Egyptian campaigns.

Using a similar technique to Percier’s and Fontaine’s 1812 consolidation of their separate issues, Ackermann, in 1823, collated a body of material relating to window drapery and furniture design from preceding editions of the *Repository* and issued them together in a single volume entitled, *A Series, containing Forty-Four Engravings in Colours, of Fashionable Furnitures*. The range of styles such as Gothic (Fig. 2.7) and Neo-Classical (see fig.2.8.) demonstrates the degree to which the practice of window drapery absorbed and adapted wider stylistic trends. Fig. 2.9 is accompanied by a textual interpretation of the design, detailing specific ‘light and elegant’ fabrics and colours stating that the sub-curtains should be of ‘transparent materials richly embroidered’ (14). The presence of Repton’s influence is evident through the high windows framed first by the ‘clear muslin’ which hangs in a gathered vertical swag from cornice to floor, and followed by subsequent additional and ornamental layers of cloth. The view is extended and moves from interior through to the typically picturesque landscape beyond depicting water, figures, hills and distant habitation. The windows have actually become doors; structures through which one not only looks but can also physically pass through.

¹³ The publication first appeared in a serial format in 1801 and was issued as an entire volume in 1812.

Framing landscape in this manner was firmly embedded within literary and aesthetic discourses of picturesque sensibilities expounded by the likes of Richard Gilpin, Richard Payne Knight and Uvedale Price. The picturesque contrivance of simultaneously arranging interior and exterior views through the framing device of window drapery possessed additional associations of theatricality, transforming the domestic environment into a space that encouraged heightened performativity.

Much of the performativity occurring within the middle-class drawing room that was supported by theatrically abundant window drapery, was aspirational in attitude and influenced by aristocratic modes of consumption. Fig. 2.10. from *The History of the Royal Residences* (1819), depicting the Prince Regent's crimson drawing room at Carlton House, represents the pinnacle of the period's elite fashionability. Pyne's accompanying text provides a descriptive and highly complimentary inventory of the room's contents:

On entering this spacious apartment, the eye is agreeably struck with the happy combination of splendid materials tastefully arranged; consisting of a profusion of rich draperies, large pier glasses, grand chandeliers of brilliant cut glass, massive furniture richly gilt, candelabra, tripods, bronzes, elegant vases, and other corresponding decorations, displaying at once the improved taste of the arts and manufactures of Great Britain. (20)

Evidence of the new integrated decoration of space practised by Percier and Fontaine, Hope and Ackermann, is indicated through Pyne's attention to the 'happy combination of materials' and 'corresponding decorations' made up of filtering fabrics and objects possessing shining, reflecting and transparent surfaces which worked together to display the improved aesthetic credibility of luxury commodities. A further example of elite sensibilities for the aesthetic partnership between interior design and lighting treatments is found at Fonthill Abbey, the home of William

Beckford, politician and Gothic novelist. Rutter's *Delineations of Fonthill and its Abbey* (1823), describes the interior of King Edward's Gallery (seen in fig. 2.11) in which curtains are used to radically transform the quality of ambient light within the space, 'The lofty windows to the west admit a strong influx of light, which, when the scarlet curtains are drawn, sheds a general and magical tint over every part (34)'. However, as section six will discuss, the relationship between luxury commodities and the improvement of taste came to be increasingly ambivalent and problematic towards the middle of the century.

The decade after publication of Ackermann's periodical ceased other publishing projects continued the effort to form, disseminate and stimulate principles of the design industry. In 1834 Loudon published his extensive *Encyclopedia of Cottage, Farm, Villa Architecture*, which was ground breaking in its comprehensive scope and attention to detail and used by both professionals and amateurs alike. In 1834 Loudon launched the first issue of the *Architectural Magazine, and Journal of Improvement in Architecture, Building, and Furnishing, and in the various Arts and Trades*, which ran until 1838. In keeping with the increasing commodification of window drapery and interior design Loudon pursued an aesthetically integrated approach and recommended that, 'In general the material and colour of window curtains should be the same as that of the other drapery in the room' (*Encyclopedia* 1074). In addition to individual, entrepreneurial publishing projects in design practice, attempts were made by parliament to consolidate design practice into a nationally recognisable, creditable and profitable industry. The first step in this process came in 1835 when the Select Committee on Arts and Manufacture was set up to "Enquire into the best means of extending a

knowledge of the Arts and the principles of Design among the people, especially the manufacturing population of the country."

As the century progressed the proliferation of trade and amateur manuals, along with style guides which provided opinions and advice on the treatment of windows became increasingly specialised (Edwards 57). This is demonstrated by the publication of Henry Cole's and Richard Redgrave's *Journal of Design and Manufacturers* (1849), which aimed to professionalize and promote the applied arts. Attention to the affective capacity of window draperies to manipulate natural and artificial light in the domestic space was now effortlessly absorbed into a cultural system that processed acts of perceptual interpretation and evaluation. Upholstery, furniture, wallpaper, ornaments, painting, furniture and drapery were now all aesthetically legitimate materials.

In chapter one I discussed how my interpretation of transparent imagery requires a certain amount of revision to the separate spheres debate. I argued that the predominantly female practice of domestic transparent painting indicated an aesthetic engagement with the passage of light between dwelling and street, rather than the reactive retreat and wholesale removal of women from public life. The study of early nineteenth-century domestic furnishings in chapter two also indicates a similar degree of perceptual activity and experimentation, for although perceptions of interior and exterior space were different there was, nevertheless, a degree of material continuity. Those who occupied and arranged drawing rooms interacted with the wider world of commerce, engineering, politics and culture through the display of luxury commodities produced by industrial manufacturing, aesthetic alteration of daylight and appropriation of new artificial lighting methods.

To conclude this section on the aesthetic significance of window drapery I explore the perceptual significance of dwelling within this decoratively and commodified illuminated atmosphere. Curtains did not merely increase or decrease the available amount of light within an enclosed space; they transformed the perception of light in that space. A textile's particular composition, be it cotton, silk or wool; the manner in which it was woven in terms of whether the threads touched each other closely such as pile like velvet; the degree of transparency, opacity or reflectivity; the surface texture - raised, indented or sculpted - all subtly contributed to the behaviour of light upon and through cloth. Damask is a good example of a fabric that produces a high level of fluctuating light activity across its surface due to the varying degrees of roughness and smoothness. In addition to effects created by the material composition of a textile, the arrangement of drapery, its angles, depth, rhythms and cuts also contributed to the performance of light within a given space. Claire Pajaczkowska cogently interprets the complex manners in which textile can be read:

Cloth, woven on a loom, incarnates the most troubling of conceptual paradoxes. It is a grid; a matrix of intersecting verticals and horizontals, as systematic as a graph paper, and yet it is soft, curved and can drape itself into three dimensional folds...It transforms the natural materiality of animal, vegetable and mineral into the cultural clothing of humans. (233)

The process of transforming natural material into the cultural textile of curtains supported a complementary process whereby window drapery transformed raw exterior daylight into a refined cultural light of the drawing room.

While Pajaczkowska addresses the dual significance of cloth's natural and cultural materiality, Catherine Vasseleu explores the philosophical implications of

the experiential combination of textile's tactility and the visuality of light. Proposing a phenomenological counter argument to Plato's metaphor of the cave, which hierarchically divided the senses of sight and touch, Vasseleu instead argues that for an interpretation of light which encompasses both vision and touch. She sets out an embodied, historicized, materiality of light which is realized through:

cloth, threads, knots, weave, detailed surface, material, matrix and frame. Regarded in this way, light is not a transparent medium linking sight and visibility. In its texture, light is a fabrication, a surface of a depth that also spills over and passes through the interstices of the fabric. (12)

The nineteenth-century collaboration between increased window area and increased window drapery indicated a new, heightened and tangible engagement with light in which soft window furnishings were used as aesthetic tools for the alteration of the illuminated domestic environment.

These cultural and aesthetic tools of domestic light manipulation formed a Heideggerian network of household equipment which took on a specific comportment towards the world that exceeded traditional binary divisions between subject/object. Heidegger describes the network thus:

We shall call those entities which we encounter in concern "*equipment*". In our dealings we come across equipment for writing, sewing, working, transportation, measurement. The kind of Being which equipment possesses must be exhibited. The clue for doing this lies in our first defining what makes an item of equipment – namely, its equipmentality. (97)

For our purposes, the notion of curtains as equipment allows us to approach an understanding of their being, their spatial connections and the historical experience of dwelling within that space. The fabric tools of curtains not only ornamented the window frame, but also performed a decorative act upon the quality of daylight

entering the domestic space. Due to the introduction of window furnishings daylight did not pass uninterrupted from the exterior to the interior, rather it underwent a filter of ornamentation that in effect reduced the intensity of light and turned it from an applied functional public light into a semi-private aesthetic light. The curtain functioned as a soft embellishment to the permanent architectural boundary between the world of the street and the world of domesticity. Gen Doy offers a thoughtful interpretation of the curtain's semantic role when she writes that the, 'curtain is on the cusp on the inside and the outside, the real and the illusory, the seen and the unseen, the veiled and the truth, opening and closing' (10). Her contemporary reading accords with the sentiment expressed by a contributor to an edition of the *Architectural Magazine* in 1834 who observed, 'A window is a frame for other pictures besides its own, and it may be made, by curtains and blinds either to harmonise with what is without' ("General Notice" 314-5). Such a comment emphasizes that curtains were not intended to screen-off or conceal city life, and were not, as Sparke and Schivelbusch maintain, engaged in the separation of public and private spheres, but were actually bridging tools designed to enhance and ease the transitional flow of life through differently structured spaces.

Three: Desiring Muslin's Transparency

Muslin was a material of central importance in the project to harmonise the immediate interior environment with the exterior space beyond the boundary of the

drawing room. It formed a partnership of aesthetic affinity with natural and artificial light sources in the home and came to ornament both windows and women. As a tool of light manipulation muslin affected both the illumination of domestic space and the formation of gendered subjectivity. This second use of muslin will be investigated further in section four.

The production and consumption of muslin was directly implicated in some of the most pressing issues that intersected the political, economic and cultural arenas of society during this period. Originally produced in India, muslin was a type of very finely woven cotton fabric that was ideally suited to the climate of the Indian sub-continent. Speaking of this textile, Jean-Baptiste Tavernier, travelling in Turkey in the sixteenth century declared it was so fine, 'that when a man puts it on, his skin shall appear through it, as if he were naked...Of this the sultanesses, and the great Noblemen's Wives make Shifts and Garments in hot-weather' (qtd. in Harley 55). Such a seemingly unsuitable material for the British climate nevertheless found a successful market in Britain, initially as a luxury commodity. Imported in the eighteenth century by the East India Company the cost was considerably higher than a domestically produced traditional textile such as linen. The initially scarce supply of the imported fabric, combined with its aesthetic properties, meant that demand was high and prices were set at a premium, thereby conferring a luxury status on the fabric and limiting its consumption to elite quarters of society. In addition, the cultural appeal of muslin was framed through archaic and exotic associations which the stylistic trends of Neo-Classicism and Romanticism conferred upon the fabric. The desirability of muslin's luxury status played a key role in cotton manufacture's stimulation of the nation's larger commercial growth.

By the turn of the century muslin's ubiquitous presence interfered with qualities of ambient light on an unprecedented scale. Therefore, acknowledging the commercial drive and industrial technologies behind the product of muslin is essential when assessing the widespread impact of muslin's material qualities upon the cultural practices of illumination. In the penultimate decade of the eighteenth century changes in production, distribution and pricing meant that demand and availability of the fabric dramatically increased (Harley 67-8). In the domestic market technological advances such as James Watt's steam engines, which was used in conjunction with the mule and spinning jenny in 1781, and Edmund Cartwright's power loom in 1787, contributed to the avoidance of expenses incurred through importation of muslin. The arrival of domestically manufactured, and therefore more affordable, muslin meant that it was no longer a luxury commodity. The shift from scarcity to accessibility did not dampen the public's desire for the material as evidenced by a commentator from 1788 on the industrial improvements of 'British Calicoes and Muslins, printed and plain' which he claimed 'have become the dress of the lower ranks all over Great Britain' (Colquhoun 12).

Aesthetically muslin was prized for its fine, light weave, its soft effects of transparency and its ability to mediate light. Muslin conferred its perceived properties onto the objects and people that it touched. These unique qualities of transparency and weightlessness predisposed muslin for use in a number of different capacities, from screens in theatrical sets to household curtains and on to women's clothing, revealing and concealing the contours of female form whilst surrounding the body in a penumbra of hazy light. Although the performative and

public space of the theatre is not the subject of the thesis it is, nevertheless, worth noting that muslin played a fundamental role in the development of stage lighting techniques. As already mentioned in the introduction, the fine artist and theatrical scene painter de Loutherbourg successfully refined and expanded techniques of illuminated transformations under the directorship of David Garrick at Drury Lane Theatre (Nicoll and Rosenfeld 140) and went on to develop his own miniature theatre of illuminated effects, the eidophusikon. Loutherbourg experimented with painted muslin scrims, varying the angle of artificial light so that the muslin appeared opaque or transparent, enabling smooth scene changes and special atmospheric effects such as representations of moonlight or firelight. Therefore, on both the stage and in the drawing room muslin was used to effect changes of atmosphere, control lighting levels and frame the act of viewing.

In the form of a curtain, the affinity between muslin and light was skilfully worked by professional and amateur designers alike; they strove to achieve an effect of alchemy, mixing the materiality of muslin with the immateriality of light, diffusing the exterior light of the street and dispersing a softened version into the space of the drawing room. As Schoeser and Rufey state in their extensive research in *English and American Textiles from 1790 to the Present*, 'Muslin sub-curtains formed an important part of the decorative window schemes in the first third of the nineteenth century' (18) being used as either full or partial window dressings which filtered light before it penetrated deeper into the domestic space. By about 1810 the fashion for both plain and embroidered muslin sub-curtains had established itself as an integral part of fashionable, fully dressed window treatments (39), as seen in fig.2.12 from George Smith's *The Cabinet Maker's and*

Upholsterer's Guide. Drawing Book and Repository of New and Original Designs for Household Furniture and Interior Decorations (1826). The transformation of daylight via muslin was motivated by both functional and non-functional interests. According to Loudon, muslin curtains should be used to 'soften direct light of the sun' (*Encyclopaedia* 1075) thereby avoiding the damaging effects of direct sunlight upon furniture.

Later in the century theories about the design of material objects, environments, and modes of social behaviour became increasingly integrated. Mrs Lucy Orrinsmith's publication on domestic design and etiquette, *The Drawing-Room: its Decorations and Furniture* (1878), required the illuminated atmosphere of the drawing room to harmonize with proper modes of domestic dwelling. She stated that, 'To be beneficial in our living rooms they [light and air] must be, as it were, educated to accord with indoor life' (64), and muslin curtains operated as a key piece of equipment in this activity of selective, socially progressive lighting. The non-human elements of fabric and light were trained and civilized in an effort to achieve harmonious domestic living. Implicit within Orrinsmith's instructions is that the modification of a non-human agent also possesses the capacity to affect and adjust human behaviour; in its refined state light could also improve those who came into contact with its orbit. Bill Brown's 'thing theory' is helpful when trying to absorb how this dynamic between human and non-human forms might work. He writes that, 'The story of objects asserting themselves as things, then, is the story of a changed relation to the human subject and thus the story of how a thing really names less an object than a particular subject-object relation' (4). Muslin curtains tamed exterior daylight and transformed it into an ambience of cultured illumination

appropriate for polite consumption and social interaction. The sophisticated styling, displaying and describing of muslin's management of light belonged to a wider network of domestic equipment which was used in a project to improve and control natural and artificial illumination. The acquisition of skills which enabled the expert handling of these pieces of domestic equipment conferred a status of cultural refinement upon the user.

Muslin filtered and diffused the first touch of light, but once this process had been conducted the remaining light was manipulated in different ways around and through other fabrics which the ornamented window space. Heavier, darker colours of silk and satin drapes framed the window space and continued to reflect and refract the light deeper into the interior of the drawing room. On a practical note these denser fabrics were interlined with flannel which protected the expensive material from damage by the sun and also contributed to the way in which the overall curtain hung. In addition to window curtains' capacity to soften and tame daylight they were also favoured for the manner in which they responded to and altered artificial lights of night-time illumination. Manufacturing techniques had developed to such an extent that by the early nineteenth century it had become possible to produce the appearance of silk damask from cotton. Commenting on this material mimicry Ackermann asserted that 'they need only to be seen to become approved, and are particularly calculated for candle-light effect' (qtd. in Schoeser & Rufey 39). Ackermann was not alone in this opinion, James Arrowsmith recommended 'rich and ample' purple or claret-coloured library curtains of silk velvet, 'splendid beyond any other material; their lustre by candlelight has a magnificent effect' (94). Rather than transparency, reflectivity was

foregrounded and favoured. However, as this chapter will also show in the final section, these lighting effects could also fall into disfavour, contaminating esteemed cultural values with seductive but ultimately vulgar instances of glitter, glare or too much visibility.

Four: Being Transparent

Muslin and the drawing room belonged to a network of techniques, materials and effects which shared an ontological affinity and worked towards achieving agreements about appropriate perceptual experiences and identities. Yet it was becoming increasingly difficult to reach a consensus about how to feel and attend to oneself and the world. Relating to the materiality of modernity required numerous negotiations and adjustments of the individual. In this next section further areas of this network and how it performed in the drawing room are uncovered and interpreted. Muslin's dual status as fabric for window drapery and female clothing resulted in a continuity of lighting effects occurring around the inanimate structure of the window and the animate female form. I argue that muslin's unique manipulation of light provided the material support necessary for the conveyance of historically specific gender values. What bound the material and the conceptual identity of muslin with early nineteenth-century female attire was that fabric's unique relationship to light. The creation of atmospheric, cloud-like softness through which light passed encouraged the personification of both light and woman as pure, innocent substances that could be moulded at will. Both forms

were idealized as neutral interfaces, semi-permeable boundaries between nature and culture. Muslin's interaction with light initiated a perceptual process of feminization which focused upon nurturing skills of effortless sociability and cultural dexterity in a project of social bonding.

The designers Percier and Fontaine were sensitive to the correlation between designing drapery for the home and dressing the person; 'Decoration and furniture become for homes what clothes are to people' (qtd. in Dornseife 69). Dorothy Jones goes further in the conflation of furniture, fabric and people, by arguing that this act is in fact gendered because in 'most societies, cloth is gendered, usually through association with women, whilst ideals of womanhood and femininity are themselves fabrications to which textiles in their various forms have contributed both materially and imaginatively' (375). Therefore, draping windows and women in the most fashionable fabrics of the day indicated that an aesthetic and conceptual correlation existed between the animated, gendered human form and an inanimate structure of the drawing room.

In some instances the correspondence between the decoration of the drawing room and the women that inhabited it intensified to a state of competition more than collaboration: 'At last Mrs. Thornton came in, rustling in handsome black silk, as was her wont; her muslins and laces rivalling, not excelling, the pure whiteness of the muslins and netting of the room' (109). This brief episode from Gaskell's *North and South* (1854-5) placed the woman's muslin and the window's muslin in a competitive position, implying that the aesthetic criteria for evaluating aspects of interior design was also appropriate for judging the quality of Mrs

Thornton's clothes. The significance of Gaskell's human and non-human comparisons becomes more complex in *Cranford*:

The only fact I gained from this conversation was that certainly Peter had last been heard of in India, "or that neighbourhood"; and that this scanty intelligence of his whereabouts had reached Cranford in the year when Miss Pole had brought her Indian muslin gown, long since worn out (we washed it and mended it, and traced its decline and fall into a window-blind before we could go on). (130)

Following Elaine Freedgood's metonymic strategy of reading materials' meaning, we can interpret the reference to 'Peter' and 'India' as suggestive of the British Empire, trade and masculinity which, through muslin and its commercial trajectory, is then yoked to realms of the domestic, local and feminine. Attention is then drawn to the shared attire of women and windows when the clothing cast-offs of Miss Pole are frugally re-purposed into household equipment. These representations of quotidian instances which position women, muslin and windows in a seemingly natural, analogous and harmonious relationship demonstrate the degree to which the constructed and perceptual bond between subject and object was culturally reproduced.

Through the medium of light the concepts of woman and window were understood to be interchangeable. As Armstrong perceptively notes:

Round the window individual decorative choices can be made, forming an extension of the owner's identity. (Hence Loudon's glorying in the many different ways windows could be 'dressed' and curtained. Thus, the domestic window is always at the junction of contradictory meanings, where individual and socially organised space converge.' ("Transparency: Towards a Poetics of Glass" 139)

The transformation of exterior light into cultured, domestic light mediated articulations of social and individual subject formation so that notions of femininity were constructed in a similar manner to the window given that traditionally and symbolically it was through ‘woman’ that ‘man’ could see, access and engage with nature. Further into the article Armstrong proposes that the ‘window controls the experience of the viewer’ and goes onto directly link woman and window through a series of literary examples; in *Middlemarch* where Eliot expresses an instance of Dorothea’s interiority through a window; and Dickens’ placement of the anguished Lady Dedlock gazing through panes of glass in *Bleak House* (140).

In addition to Armstrong’s examples there is a less well known, but equally relevant short story by ‘Simplicius’, tellingly entitled “Window” in the May edition of the *Ladies Museum* for the year 1829. On an evening walk through an affluent London neighbourhood the narrator stops and looks up at a house, un-illuminated except for one lone light at a window. The narrator then proceeds to perform a double action of fixation. His attention is focused upon an interior light framed by ‘A light curtain hung in elegant and simple drapery over the window’ (283). He uses the window as a frame or screen upon which he projects his desires and imagination about the occupants. After imagining various types of residents he determines that the room is used by a woman because of the proximity of a work table where she would embroider upon ‘gauze’ (284). His voyeurism is rewarded when he finally sees her at the window:

some one approached and undrew the curtain. Yes, it was a female; what a graceful carriage, what a pretty hand did she place on the muslin which covered the panes of glass, as her head reclined, so sweetly pensive, that

her looks might captivate beyond! I know not what secret pleasure I felt at seeing her, and in following all her movements.' (284)

The degree to which *his* imagination brings *her* to life is demonstrated when he concludes that he can 'give an explanation to all her movements, embody every shadow, according to my own opinion, and read her history through the glass of her window' (285). Caspar David Friedrich's *Woman at the Window* (1822) (see fig.2.13) shares a visual correspondence to this theme where window and woman are malleable, fleshed out and brought to life by the male narrator or artist.

Ackermann's role in the *Repository* as a guide and disseminator of taste for interior design ran in parallel to regular visual and textual commentaries on trends in seasonal fashions. Fig. 2.14 is an example of an early fashion plate from February 1809 where a full-length female figure displaying a red dress of shimmering and partially transparent fabric is depicted. Set in a sketched interior the woman is shown seated on a piece of furniture upon which is also placed additional and uncoloured draped fabric. She is framed on her left by similarly sketched curtain drapery and tassels implying that she is sitting in or near a window recess. Present within this image is a visual correspondence between the figure and the accompanying props. Although her dress is foregrounded through the application of colour she nevertheless functions in much the same way as the background props. She merely supports the fabric which is the dominating focus and function of the image. Her skin becomes a lesser, sketchier surface like the background.

Gordon states that 'Windows and furniture were, like women, "draped" with fabric and "festooned" with ribbons or cloth. Furnishings and rooms like women or their clothing could be "pretty", "elegant", or "ornate"; in other words, they, like the

body, could be dressed" (288). Gordon focuses on middle to late nineteenth-century, primarily American material, but her argument is equally valid for earlier in the century. In fact, I would suggest that in order to fully appreciate the dynamic between the gendering of women and space one must look to the nascent forces that emerged in the first rather than second half of the century, for as Mrs L. observes in *The Domestic Duties* of 1825, 'The style of drawing-room furniture is almost as changeable in fashion as female dress; sometimes it is Grecian, then Egyptian, and now Turkish' (193). Fourteen years later the French chemist, Michel Eugène Chevreul conducted experiments for the Gobelin Factory.¹⁴ Chevreul's experiments into the chemical and optical analysis of fabric were situated not in the discrete environment of the laboratory but in the everyday location of a domestic interior:

Between two windows directly opposite to each other, admitting diffused daylight, place a white plaster figure in such a position that each half shall be lighted directly by only one of the windows. On completely intercepting the light of one of the windows, and hanging a coloured curtain before the other, the figure appears only of the colour of the curtain; but if we open the other window, so that the figure is lighted by diffused daylight, while it is at the same time lighted by the coloured light, we then perceive some parts white, and some parts tinted with the complementary of the coloured light transmitted by the curtain. (281)

Chevreul concludes that the experiment, 'teaches us, that if a bonnet, rose-coloured, for example, gives rise to a reflection of this colour on a complexion, the parts thus made rosy by the effect of contrast, themselves give rise to green tints,

¹⁴ The results of his experiments were published in *De la loi du Contraste Simultané des Couleurs et de l'Assortiment des Objets Colorés* which was translated into English by Charles Martel in 1854.

since the figure, while it receives rosy reflections, receives also diffused daylight' (281). Chevreul's commercial science, in the service of interior design and female beauty, demonstrates how much time and effort was invested into the performance and influence of ambient lighting.

George Smith's *The Cabinet-Maker's and Upholsterer's Guide* (1833) performed a similar act of blurring between window drapery and the female form in a design intended for the drawing room:

To this cornice is attached what is properly termed a stone drapery, from its existing in most of the antique female statues in Rome, and forming that portion of the vestment attached to each shoulder by a button, and which falls down on the breast into folds similar to those in the present design. (178) (see fig. 2.15)

Smith seeks affirmation for interior design by citing the origins of western art claiming that antique female statuary inspired his commercial practice; the conflation of woman and window is demonstrated by Smith's appropriation and repurposing of classical female drapery for contemporary window drapery. A complex play of artifice is at work here in which fabric is designed to appear as if it were sculpted stone which then attempts to mimic fabric. Hollander observes that 'Strictly Neo-classical dresses were being made to suggest the thin, narrow-girdled and pinned-together garments found on Greek and Roman statues, now rendered colourless by time, most of which offered vivid information about the nudity beneath' (*Fabric of Vision* 104).

Drapery's inclusion into a repertoire of formal aesthetic effects was promoted by both the theory and practice of the sculptor John Flaxman, who was appointed Royal Academy professor of sculpture in 1810. Published posthumously

in 1829 his *Lectures on Sculpture* emphasized the extent to which drapery, and particularly transparent drapery, had become a semantically and perceptually potent material; 'Drapery, as a medium through which the human figure is intelligible, may be compared with speech, by which the idea of thought is perceived' (237). Fig. 2.16 details a number of stock techniques for executing effects of drapery and Fig. 2.17 illustrates the aesthetic turn towards Classicism, and the corresponding effects of transparency and muslin displayed on and through the female form. Flaxman said of the shared ancient and modern interest in drapery, 'Concerning the finer and more transparent draperies used by the ancients, their texture, and consequently their folds, strongly resembled our calico muslin, and are peculiar to the more elegant and delicate female characters of Grecian sculpture' (244). He concluded with praise for the sculptural rendering of transparency which produced an almost see-through appearance leaving the 'forms and outline of the person as perfectly intelligible as if no covering were interposed between the eye and the object (245). However, as will be discussed in section six, the see-through quality of fabric could also cause criticism as well as praise.

The stone's sculptural and inanimate mimicry of muslin's qualities was matched by an animated and embodied effort to imitate muslin's features through women's tactile encounters with the material. The manufacture of the fabric was 'in many instances performed by women and children' (Colquhoun 9) and was then promoted as women's textile of choice for clothing, (men only wore muslin in moderation, primarily in the form of a cravat) therefore, women were deeply involved with both the production and consumption of textile. This gendered

connection was also inflected with distinctions of class because the raw fabric was made by a lower class of women and bought by a more affluent class of women, who then proceeded to work ornamentally upon the fabric, executing complex needlework designs. This type of secondary work was considered to be an activity of accomplishment, a cultivating and improving process rather than a primary act of labour. Not only did middle-class women wear the same fabric that adorned windows and antique sculptures but, I argue that, they were encouraged to adopt the qualities associated with muslin by working upon it with their hands through needlework activities.

The quiet, controlled and delicate practice of embroidery on muslin was described by H. G. Clarke's *The Ladies' Hand-Book of Embroidery on Muslin and Lace-work* (1843) as being a kind of task which 'shed a calm, and diffused a radiant sunshine over their leisure hours' (vi); fig.2.18 illustrates the type of work under discussion. Physical contact with muslin sensorily affected the quality of female experience and the atmosphere of the immediate environment. Muslin's material qualities are allowed, enhanced and encouraged to exercise an agency upon states of feminine embodied consciousness. The act of touching, making and projecting a form of creative vision in needlework from oneself onto muslin had the effect of transforming not only the muslin into a refined artefact but also the woman. The author of the handbook continues with the conviction that by representing nature in needlework a woman's corporeality would favourably dematerialise appearing just as a miraculous illuminated essence of femininity:

And she, whose deep sensibilities, and nicely-judging skill, are elicited by the effort to rival nature in the production of a mimic flower, will be very likely to conceive some nobler aim, and to become an orb of brightness, diffusing

comfort, happiness and joy, through the whole circle in which providence has appointed her to move. (47)

Through the act of making the woman was improved. The processing of raw material into a refined and ornamented material refers equally to both the woman and the muslin. In the same way that untreated light from the street or an exposed flame from a lamp was transformed into a cultured light, so too was a woman rendered culturally eloquent through her handling of muslin. As she worked upon the muslin it also worked upon her in a mutually dynamic act of improvement that was grounded in concepts and percepts of lighting properties. The use of equipment and exercise of judgement required the acquisition of aesthetic and practical skills which supported the construction of gendered subjects, gendered activities and gendered illuminated environments.

The process of visualising and constructing gender through reference to specific lighting effects was not just active in guides for leisure pursuits, but was also present in fiction, etiquette manuals and the visual arts. Connections between notions of femininity, muslin and light extended beyond affinities with window dressing and embroidery and reached into the actual physical deportment of women. Qualities of light such as transparency, radiance and soft brightness were frequently invoked and implicated in the educational shaping and bodily presentation of female subjectivity. Given that beauty was felt to be a natural possession, any hint or association with overt artifice could potentially inhibit complementary observations. The standard comparative references were to morning light, sunlight, clouds, etc, rather than descriptions of female beauty as artificial like a gas or oil lamp, which carried associations of industrial dirt and the taint of commerce. When comparisons were made between artificial lighting and a

woman's appearance it was invariably motivated by a desire to label her as vulgar. Glitter and glare upon the female form were not to be encouraged.

Jane Austen's representation of her heroines, such as Marianne Dashwood in *Sense and Sensibility* (1811), exhibited stock physiognomic characteristics. Marianne's appearance—Her skin was very brown, but, from its transparency, her complexion was uncommonly brilliant' (39)—conforms to values esteemed by authors of etiquette and beauty described in texts such as *The Art of Beauty* (1825) where 'A smooth, soft, and transparent skin is no less indispensable to the perfection of beauty, than elegance of figure' (90). In addition to prescriptive discourses of comportment, medical texts such as *Kalogynomia, Or The Laws of Female Beauty: Being the Elementary Principles of that Science* (1821), also emphasized 'delicacy and transparence [sic] of the skin' as a singularly female attribute (Bell 60). Indeed, the author went so far as to assert that for a woman 'It is a defect, if the skin be not transparent' (329). However, if a woman did suffer from such a 'defect' remedies were at hand. According to Elizabeth Wilson the early nineteenth-century market for cosmetic enhancements incorporated a Romantic ideology so that a seemingly 'pale, unadorned face became part of an aesthetic ideal' (108). As an aid to this ideal, products such as Pears Transparent Soap and Italian Lily Paste were advertised in the leading women's journal, *La Belle Assemblée* (Beetham 17).

Published in the same year as *Sense and Sensibility* the anonymous author of *The Mirror of Graces or the English Lady's Costume (By a Lady of Distinction)* prized similar qualities to Austen. Character is read through the skin's ability to convey expression, 'The animated changes of sensibility are no where more

apparent than in the transparent surface of a clear skin' (49). Nothing was hidden for there was nothing unsavoury to hide in the well-bred lady. Interiority was accessed and viewed through the skin, rather than the eyes and the transparent appearance of complexion was recognised as an indication of lady-like demeanour. Further exploration of continued attention to manifestations of interiority occur on the next page, when the entire female body was rendered as if a sort of light filter, like a curtain or lampshade; 'In all cases the mind shines through the body; and, according as the medium is dense or transparent, so the light within seems dull or clear' (50).

From the quality of skin the author progresses to the matter of appropriate female clothing. In keeping with the popular fashion of Neo-Classical dress, the writer drew upon Greek mythology for inspiration saying:

In the spring of youth, when all is lovely and gay, then, as the soft green sparkling in freshness, bedecks the earth; so, light and transparent robes of tender colours, should adorn the limbs of the young beauty. If she be of the Hebe form, warm weather should find her veiled in fine muslin, lawn, gauzes and other lucid materials. (71)

Again muslin featured in combination with references to nature, beauty and transparency. Similar fashion advice was offered in Ackermann's periodical during the previous year. In a series of a fictional letters titled, 'from a young lady in the gay world, to her sister in the country', details for a ball dress were offered to readers as follows:

It consists of a Persian robe of Oriental gauze, of a pale saffron colour, so interwoven with irregular sized stars of gold, that when extended, as designed, over a white gossamer satin slip, it gives you an idea of the commencement of a *bright summer's morning* (emphasis added).

By 1859 muslin's mediation of light and female subjectivity was aesthetically codified in Baudelaire's essay, 'The Painter of Modern Life', in which he writes 'Woman is sometimes a light...she is a general harmony...in the muslins, the gauzes, the vast iridescent clouds of stuff in which she envelops herself' (*Art in Theory* 501). However, the quantity and quality of lighting effects such as these involved careful judgement and management because the poetics of femininity was a poetics of natural illumination. Too much transparency turned modesty into immodesty and too much lustre or brilliance turned luminosity into vulgar glitter and glare. Errors in taste could easily occur if sufficient skill and attention was not paid to the quantity and quality of lighting effects. Arbiters of female fashion and domesticity such as Mrs L. and Mrs. B. in the *Domestic Duties* demonstrated that criticisms of 'tawdry silks' or vulgar glitter could be levelled at both the appearance of interiors and women (Parkes 177).

Visual arts also contributed to the association between femininity and muslin's effects of illumination. At precisely the same time that muslin reached its peak price in the 1780s the Gothic genre emerged. Frequently presenting the female subject in states of eroticized vulnerability and horror, the genre created a mise-en-scène that relied heavily upon extreme and contrasting lighting effects combined with a reliance on fabrics such as muslin that revealed the female form and was sympathetic to the portrayal of ghostly aesthetics. Fuseli's *The Nightmare* (1782) epitomises the result of these compositional ingredients (see fig.2.19). The malleability of muslin merges with the supine female form that lies in a condition of ambiguous abandonment. Upon her breast squats the visual realization of her nightmare. Surrounding the central area of white translucent muslin is a material

frame of darkly opaque fabrics that unfurl beneath and around her, forming a screen that provides the surface upon which the shadow of the monster is cast. Fuseli's use of fabrics, textures and lighting effects as modes of expression for gender, sexuality and the irrational anticipated the writer, Edgar Allan Poe's scenes of opulence, the unconscious, the uncanny and eroticism in the nineteenth century.

Writing with the weight of the Gothic behind him Poe made full use of related devices for producing atmosphere and effect. Poe's short story, *The Assignation* (1834), is saturated with imagery of lighting effects produced through materials directly associated with notions of femininity:

Her small, bare, and silvery feet gleamed in the black mirror of marble beneath her. Her hair, not as yet more than half loosened for the night from its ball-room array, clustered, amid a shower of diamonds, round and round her classical head, in curls like those of the young hyacinth. *A snowy-white and gauze-like drapery seemed to be nearly the sole covering to her delicate form.* (emphasis added, 160-1).

Slightly later in the story Poe enters an intense, sensorily descriptive space which reveals his heightened sensitivity to and preoccupation with interior design. This interest permeated both his fiction and non-fiction writing; examples of the latter mode are dealt with towards the end of the chapter:

Rich draperies in every part of the room trembled to the vibration of low, melancholy music, whose origin was not to be discovered...The rays of the newly risen sun poured in upon the whole, through windows formed each of a single pane of crimson- tinted glass. Glancing to and fro, in a thousand reflections, from curtains which rolled from their cornices like cataracts of molten silver, the beams of natural glory mingled at length fitfully with the artificial light, and lay weltering in subdued masses upon a carpet of rich, liquid-looking cloth of Chili gold. (165)

Poe creates a moment of narrative stasis where attention is drawn away from characters and plot and instead he focus on the animation of inanimate objects through complex lighting effects. Curtains, carpets and light have temporarily become characters in their own right.

A few years after Poe's story, Nathaniel Hawthorne brought together a similar Gothic configuration of a female character, her clothing, household objects and lighting effects in a passage from "Edward Randolph's Portrait", a tale from *The Legends of the Province House* (1838-9). Hawthorne describes the character of Alice Vane as 'clad entirely in white, a pale, ethereal creature' who seemed as if she was 'almost a being from another world' (288). Hawthorne proceeds to a mysterious scene featuring Alice in which 'partly shrouded in the voluminous folds of one of the window curtains, which fell from the ceiling to the floor, was seen the white drapery of a lady's robe' (294).

Much of Poe's work was translated into French by Baudelaire. Traces of Poe's influence upon Baudelaire are evident in the latter's emphasis upon descriptions of ambient illumination and sensuous materiality which have the effect of energizing environments, infusing spaces with an intentionality independent of and sometimes at odds with protagonists. In his prose poem, "The Twofold Room", Baudelaire expresses two unsettlingly different experiences of one room. The first is a laudanum infused vision of light, fabric, femininity and the unconscious:

The draperies speak an unvoiced language, like flowers and skies and setting suns....

Muslin falls in a profuse shower over the window and canopy of the bed, flowing in snowy cascades down. And on the bed reclines the Idol, the queen of dreams (37).

Baudelaire's language of transparent drapery resonates with Flaxman, who was quoted earlier as maintaining that 'Drapery... may be compared with speech'. From the three dimensions of stone, to the two dimensions of paint and on via the abstract concepts of words, early nineteenth-century imaginative and aesthetic expression developed an unprecedented sensitivity to effects of lighting practices upon perceptual consciousness.

The appropriation of domestic practices of lighting and interior design by writers such as Poe, Hawthorne and Baudelaire is picked up by Rebecca F. Stern in her article, "Gothic Light: Vision and Visibility in the Victorian Novel", which explores the association between light and the Gothic through a framework of Lacanian psychoanalysis. Of particular interest to this thesis is Stern's analysis of the character Lucy in Bronte's 1853 novel *Villette*. Stern notes how access to Lucy's interiority is mediated by the disclosure of her motivations around clothing choices:

Refusing the "transparent white dress", Lucy chooses instead a "gown of shadow"...The "diaphanous and snowy mass", of whiteness forms "a field of light," which Lucy holds, reflects gendered deficiencies all too well...Lucy argues that her corporeal shortcomings would be laid open by "a transparent white dress": "these deficiencies...will force upon us their unwelcome blank on those bright occasions when beauty should shine."

(34-35)

In Lucy, Bronte has created a character who is knowingly sensitive to the gendered implications of light, muslin and beauty. Instead of adopting these attributes she strategically avoids those normative constructions of subjectivity by absorbing ambient light in an opaque shield of grey fabric that is her chosen attire. The mix of material and immaterial ingredients moved towards the formation of a recognisable

aesthetic formula when six years later sensation fiction boldly claimed this recipe as its own in Wilkie Collins', *The Woman in White*, a story in which the title's iconic image symbolizes the frequent iterations of dangerously fluid and susceptible female subjectivity which lie within the novel's pages.¹⁵

Five: Ornamental Lighting Effects

The controlled presence of light was not just limited to the windowed boundaries of the domestic space and female clothing, but continued to be manipulated as light penetrated deeper into the drawing room. Objects such as this convex mirror and gilded frame seen in fig. 2.20 aided the projection of light into the interior.

According to Sheraton such convex mirrors were particularly useful because of their 'convenience of holding lights, they are now becoming universally in fashion and are considered both as a useful and ornamental piece of furniture' (*Cabinet Dictionary* (1803) qtd. in V&A online catalogue object Id. 07887). The new popularity of the convex mirror's aesthetic and functional capacity to both hold light, a reflection of the entire room, and its contents, is an indication of the extent to which a wide range of substances and surfaces were actively involved in the production of different illuminated effects. Moreover the mirror provided a visual bridge between the inhabitant and their environment allowing them to observe

¹⁵ John Everett Millais's 1871 painting *The Somnambulist* depicting the full-length figure of a young woman, dressed in white and caught in a state of liminal consciousness is further demonstration of the longevity of the affinity between the intangibility of subjectivity and light read through the barely tangible presence of a muslin dress.

themselves moving through and interacting with the arrangement of interior space. This bridge between subject and object resonates with Brett's project to reinterpret the decorative arts by moving away from a binary division between subject and object and towards a more phenomenologically dynamic reading of aesthetic experience. He writes, 'It actually makes no sense to say that qualities are *in* the object of experience any more than to say that they are *in* the subject. They are not '*in*' anywhere (that is merely an effect of language); qualities are the substance of the interaction between organism and the situation' (29). To understand the intentionality of the convex mirror and other reflecting surfaces of the nineteenth-century interior is to understand that perceptual meaning was generated 'between organism and situation' and not determined or possessed by either one. Therefore, this next section focuses on an analysis of how ambient light was dynamically generated and experienced within the drawing room.

For centuries warm, glowing effects were coaxed from dull wooden furniture through the transformative art of varnishing and japanning (Stalker 1688), but towards the end of the eighteenth century attention to aesthetic interactions between illumination and domestic surfaces intensified resulting in a proliferation of techniques and materials which exploited available lighting conditions. The definition of polishing from a domestic encyclopaedia of 1803 explains the process as an 'act of smoothening and imparting brightness to hard substances, such as metals, marble, glass, etc. by rubbing them with certain matters adapted to the purpose' (Willich 304). In this interpretation lighting effects were bestowed upon substances via human action rather than being drawn out from their inherent material nature. Further manipulation occurred when combinations of these

materials were juxtaposed resulting in a complex variety of reflective surfaces as is seen in fig. 2.21, a torchère candelabrum made by George Bullock between 1816 and 1818. Illumination from the candles would have been increased and subtly altered by the juxtaposition of glass, metal, oak veneer and the effects of ebony and gilt gesso. Polishing these various materials created a partnership between a raw substance and a skilful act of refinement. Treating furniture in this manner was of sufficient interest to a late eighteenth-century French visitor to Britain for him to make note of it in his travel account observing that, ‘their tables and chairs are also made of mahogany of fine quality and have a brilliant polish like that of finely tempered steel’ (Rouchefoucauld 42). Fig. 2.22 is another example of an ornately veneered and highly polished piece of furniture also made by George Bullock c.1818. The choice of light maple wood and dark ebony produces an effect of high tonal contrast that would both repel and absorb ambient light to varying degrees. Issuing from the Frenchman’s homeland approximately thirty years later the new technique, known in England as French polishing, was enthusiastically adopted by English cabinet-makers. The first reference to the method in *The Times* occurred in 1824 in an advertisement placed by a young man looking for a position as a cabinet-maker who stated that he was familiar with the practice of ‘French Polishing’ (“To Cabinet-Makers”). Two years later *The Practical Cabinet-Maker and Upholsterer and complete Decorator* by Nicholson included an entry on the subject in the glossary:

French polish is a new and durable mode of polishing or varnishing, by which means it is not so much necessary to polish the surface of the wood itself. This mode consists in applying a considerable thickness of

transparent gum-lac over the surface, so that the surface of gum appears as if it were the surface of the wood. (7)

Effects of transparency were, therefore, not limited to muslin, but were also present in other objects throughout the domestic environment. Through this specialist and non-functional aesthetic procedure articles of furniture were transformed into eye-catching, luminous surfaces that exploited any available ambient light. In the same year as the advertisement within *The Times*, J.W. Neil published *The Painter's guide to the Art of Varnishing and Polishing* which recommended that gum copal was the superior type of varnish because 'it exceeds all others, possessing perfect transparency, limpidness, and lustre with a sufficient body, which serves as a solid glazing' (39). This practice could almost be likened to a form of alchemy (not dissimilar from the alchemic workings of muslin upon light as discussed in an earlier section of this chapter) where the craftsman's skilled labour turned a piece of opaque wood into an object that was capable of performing small, but complex illuminated displays.

Beyond the sphere of the cabinet-maker, the 1820s expert in matters of refined domestic management, Mrs B., favoured mahogany above all other woods as it did not require professional treatment in order to produce an effect of high shine. She explained 'mahogany has the most valuable qualities... it is capable of receiving, by mere friction, the highest polish' (Parkes & Parkes 198). The author detailed further pieces of household equipment which through physical treatment could achieve an aesthetic as well as functional status within the home, 'Bright stoves, highly-polished fire-irons, and steel fenders, are amongst the indispensable parts of drawing-room furniture. These should be rubbed every day with a leather,

to preserve the polish' (200). Functional as well as ornamental luxury objects were co-opted into the project of aestheticizing the environmental behaviour of light.

In the same decade French polishing was introduced into England another imported and entirely new mode of decorative design, which was fundamentally reliant upon effects of transparency, began appearing on the luxury commodity market. On March 13, 1828 Robert Griffith Jones of Brewer Street, London, registered a patent for the lithophaning technique, presumably with the aim of manufacturing the product. Unfortunately further archival sources relating to his business or the wider context of lithophanes is scarce. What is known is that the process had been initially developed from a Chinese method by the French ambassador, Baron Paul de Bourgoing from Rubelles, Melun (Carney). The lithophane was a screen-like object made from porcelain that when illuminated from behind became transparent and could reveal representational images which had been moulded into the surface and were capable of responding to both artificial and natural light. In order to achieve this effect the artist carved an image in relief using wax as the base. A negative mould of this was then taken using plaster of Paris before pouring the porcelain into the mould out of which approximately 30 lithophanes could be made (Houze 109). Finally the porcelain was fired. The finished pieces could then be displayed in or near windows or supported by free-standing wooden frames, similar in appearance to fire screens that could be independently moved around the room and positioned in front of lamps.

Whilst few lithophanes from this period survive, it is nevertheless clear that they belonged to a community of objects that intentionally sought to transform

interior illumination. The transparent window paintings and blinds discussed in chapter one joined with lithophanes and other mechanisms such as mirrored blinds in an effort to enhance ambient light. At the Lincoln's Inn Field house of the architect Sir John Soane, mirrored blinds and the repeated use of convex mirrors were used to increase a sense of both space and light. In the 1830s a similar treatment was advocated in Loudon's *Encyclopaedia* when he suggested that 'The opening to the latter (conservatory) should have shutters with their backs lined with looking-glass, for effect when they are closed at night (1077)'.

Less well-known ornamental techniques of augmentation were advertised in Ackermann's *Repository* (May 1819). Brunell's metallic paper for decorating furniture seen in fig. 2.23 used the same framing device as that seen in the lace samples mentioned earlier in this chapter, but were replaced by small, eye-catching swatches of glitter. For a moment the reader of the *Repository*, no doubt seated in their drawing room, becomes a perceiver because these hand-held artefacts 'invite close inspection' (Lupton 240). The materiality of illumination is momentarily realized in the dynamic between the reflective paper and the perceiver's actions of looking, touching and maneuvering the surface, testing out, initiating and causing patterns of ambient light interference. Publications such as these demonstrate that early nineteenth-century aesthetic and luxurious treatments of interior lighting were becoming more accessible and affordable.

Nineteenth-century thinkers were alert to the conceptual and perceptual intertwining of lighting effects upon everyday objects. In 1842 the philosopher, Edward Johnson published *Nuces Philosophicæ: Or, The Philosophy of Things as Developed from the Study of the Philosophy of Words* in which he explored the

acquisition and status of knowledge through the interactions of thoughts, sensations, language and objects via an unexceptional item of household furniture:

I have in my study a table made of common deal wood. But it is veneered with a veneering of mahogany, about one sixteenth of an inch in thickness. Now it is manifest, that in looking at this deal table, you can only see the mahogany veneering. Now, imagine this veneering to be in thickness only the hundredth part of an inch—or thousandth—or millionth—or ten millionth—it is equally manifest that you could still see only the veneering, and not the deal table which is beneath it. You may continue to diminish the thickness of the veneering, in your mind, until it really has no more substance than has a ray of light. Still it is equally manifest that you can see the veneering, and nothing but the veneering, however thin it may be. Very well—this is precisely the case with every object in nature. Everything is veneered with a veneering—not of mahogany—but of colored light. And it is this veneering, and nothing but this veneering, which we see. If you ask me, how I know this? in the words of Locke, I " send you to your senses to be informed." Go and try. Remove this veneering—that is, exclude every particle of light, and then tell me what you can see. Literally, positively, and absolutely nothing—no more than you could if nothing really existed (82).

It is significant that Johnson's mid-century viewpoint of worldly knowledge is interpreted through a physical encounter with a popular mode of furniture ornamentation. The seamless manoeuvre in which Johnson transforms the technique of veneering into a disquisition on visual knowledge of the world is further evidence of the period's process of framing perceptual knowledge through light's touch upon the environment. He went on to say that 'every object in nature is wrapt up in a garment of colored light which accurately fits it at every point; and that, when this garment is removed, we can see nothing'. He concluded with the statement that 'we can see nothing but light' (83). Echoes of Johnson's all-

pervasive veneer of light are found over 120 years later in James Gibson's theory of the 'ecology of light'. Gibson claimed that 'The ground and the horizon of the earth are "in" the light. The environmental motions that occur are "in" the light. Even the locomotions and manipulations of the individual are specified by optical transformations in the light' (*The Senses Considered as Perceptual Systems* 53).

Although non-functional in terms of practical use, the reflective, glowing appearance of polished wood, transparent porcelain or glittered paper nevertheless subtly contributed to the creation of a domestic environment that according to some commentators stimulated social interaction. By the middle of the century when Edward L. Youmans wrote *The Handbook of Household Science: A Popular Account of Heat, Light, Air, Ailment and Cleansing* (1857) the method of French polishing had become a ubiquitous feature of many middle-class interiors. In addition, highly reflective materials such as glass and mirror had also become more widely available. Therefore, the drawing room was now a space rich with ornamental objects that manipulated and mediated illumination. Youmans asserted that the quantity and quality of light triggered both physiological and social responses in a section entitled, 'On the Exhilarating agency of light':

Light is a stimulous [sic] to the nervous system, and through that, exerts an influence in awakening and quickening the mind. The nerves of senses, the brain and intellect, have their periods of repose and action. The withdrawal of light from the theatre of effort is the most favourable condition, as well as the general signal, for rest, while its reappearance stirs us again to activity. There is something in darkness soothing, depressing, quieting; while light on the contrary, excites and arouses. It is common to see this illustrated socially; - a company assembled in an apartment dimly lighted, will be dull, somnolent and stupid; but let the room be brightly illuminated, and the spirits

rise, thought is enlivened, and conversation proceeds with increased animation. (76-77)

Youmans believed that illumination was a crucial ingredient for the production of dialogue and social harmony. The arrangement of lighting in a domestic setting was understood to directly alter perception, mood and social interaction.

Six: ‘Terrible Lustre’

Whilst the aesthetic processing of light facilitated social bonding it could also incur negative criticisms of poor taste and vulgarity when illumination was judged to be excessive. This next section addresses how lighting effects in certain treatments of window drapery, interior design and female fashion provoked accusations of excess and vulgarity. Lighting effects that were deemed too excessive fell into three main categories of criticisms: too much drapery; too much transparency and too much glitter or glare. For some commentators the processing of light had gone too far causing offence to their aesthetic principles of propriety and taste. This backlash started as early as 1816 in the very publication which promoted the role of drapery within the home. In the quotation below, Ackermann begins by asserting the aesthetic benefits of drapery but moves on to lament their overuse. An owner’s social status was at stake through its material projection in the aesthetic treatment of fabric:

Perhaps no furniture is more decorative and graceful than that of which draperies form a considerable part: the easy disposition of the folds of

curtains and other hangings, the sweep of the lines composing their forms and the harmonious combinations of their colours produced a charm that brought them into high repute, but eventually occasioned their use in so liberal a degree, as in many instances to have clothed up the ornamented walls and in others they have been substituted entirely for their more genuine decorations, by which the rooms obtained the air of a mercer's or draper's shop in full display of its merchandize, rather than the well imagined and correctly designed apartment of a British edifice.

(“Fashionable Furniture.” 1816:121)

According to Ackermann, an ill-judged liberality of fabric in an individual's private space threatened to de-value their social status by resembling a tradesman's showroom. Knowing how to differentiate between the aesthetics of private and commercial space was crucial if one's cultural credibility was to remain intact.

Evidently Ackermann's warning was not sufficient to moderate enthusiasm for the new fashion of window drapery which, according to Charles Eastlake writing fifty years later, had degenerated into an ‘absurd fashion which regulates the arrangement of modern window-hangings...’ (85). Eastlake was particularly offended by the non-functional, ornamental elements of the window; equipment that in his eyes seemed to take on an almost grotesque appearance. The eye-catching reflective materials of brass, gilt and bronze were also included in his attack. He went on to criticize the fringe and canopy as ‘contemptible in design’ the excess of fabric as immoderate, ‘clumsy’, ‘ugly’ and unclean through the amount of dust that they gathered. For Eastlake, interior design was a story of deteriorating standards in taste which he was endeavouring to cure. However, Eastlake's concern over the function and hygiene of excessive drapery was not new. In 1821 readers who consulted *The Family Cyclopaedia* for guidance upon the ‘choice of

house and its furniture' were warned that curtains could have a detrimental effect upon their health:

On the present fashion of suspending drapery and curtains before windows, so as to exclude almost totally the light, I beg leave respectfully but strongly to protest. In London, in particular, where, from the clouds of smoke continually hovering in the atmosphere, so much light is necessarily prevented from reaching us, surely to exclude it still more by blinds, curtains, etc. is of all things the most preposterous. The exhilarating properties of light are not, in this metropolis sufficiently appreciated.

(Jennings x)

This text provides a very different angle on the relationship between design, the house and the city. Jennings encouraged an uninterrupted flow of daylight from street to room which he considered preferable and beneficial to well-being. Yet most representations of fashionable interiors rarely acknowledged or situated the house within the wider context of the city. If an external world was visible from the windows of the drawing room it revealed a formulaic picturesque landscape, not the polluted skies of the metropolis. Ackermann and other designers consistently chose to isolate their compositions and comments about interior design, placing them in a rarefied atmosphere of aesthetic contemplation in which the polluted daylight from the unrepresented activity of urban modernity went through a cleansing, filtration process of drapery design. The fact that there were differing opinions about how to handle daylight both in terms of window taxation, health, pollution and interior design demonstrates that the management of light was not a natural or neutral phenomenon but a set of sometimes conflicting, cultural practices. Heidegger discusses cultural practices of illumination in terms of our 'concern' towards nature, 'In roads, streets bridges, buildings our concern

discovers Nature as having some definite direction. A covered railway platform takes account of bad weather; an installation for public lighting takes account of the darkness, or rather specific changes in the presence or absence of daylight' (100). Structural, geographical interventions into the environment are always, to some extent, informed by and directed towards our changing relationship with natural elements.

Whilst for some too much drapery carried negative connotations of commerce or impaired a healthy atmosphere by depleting available light, there were also occasions where public opinion voiced displeasure about too much transparency in a fabric. The writer of *The Mirror of Graces or the English Lady's Costume* (1811) obliquely referred to the possibility of over-exposing the female body and recommends that a requisite quantity of fabric should fall between the eye and the 'form divine', 'Hence you will perceive, my young readers, that in no case a true friend or lover would you wish to discover to the eye more of the 'form divine' than can be indistinctly described through the mysterious involvements of, at least, three successive folds of drapery' (91). Satirists were quick to ridicule any who failed to follow such judicious advice and overstepped the mark of propriety.

Fig.2.24 is a print from 1807 titled *The Fashion of The Day or Time Past and Time Present* which explicitly calls attention to changes in female fashion. Moving from left to right the viewer's eye passes from a representation of female fashion in 1740 up to dress contemporaneous with the execution of the print in 1807. The visual timeline moves from a depiction of opacity to translucency and from predominately black fabric to white fabric. Gestures of consternation if not outright shock are articulated through facial and hand expressions of the figure who is bringing up the

rear of the procession. And if there is any doubt about this material transformation from concealment to revealment, the visual point is secured by the accompanying description of the nineteenth-century attire in the punning sub-title of ‘bum-be seen’.

Along similar lines fig. 2.25 satirises the perceived extremities of the French taste for muslin to an English audience. The dress is ‘Full’ in name alone as the fabric reveals far more of the female figures than it conceals. The point of the humorous criticism is pressed further through the seasonal impracticability of the clothing; muslin is hardly appropriate for ‘Winter Dress’. Whilst this image appears exaggerated there were nevertheless serious concerns about the implications of wearing such light, see-through material during inclement weather. Just four years after this image Mrs Philip Lybbe Powys noted in her diary her entry for January 28 that ‘Formerly youth was seldom ill; now, from thin clothing and late hours, you hardly see a young lady in good health, or not complaining of rheumatism, as much as us old ones!’ (357). No doubt the ‘thin clothing’ that she refers to was muslin. A persistently active involvement with light struggled to achieve an appropriate balance between accusations of too much, or too little drapery.

Not only was there a tension between domestic possessions and the formation of feminine subjectivity, but there were also concerns about how the perceptual attractions of possessions caused confusion when trying to determine social station. The author of *The Mirror of Graces* complained that this new problem disrupted previous hierarchies of appropriate fashions and threatened household stability:

A tradesman's wife is now as sumptuously arrayed as a countess. Were girls of plebeian classes brought up in the praise-worthy habits of domestic duties; had they learned how to manage a house, how to economise and produce comfort at the least expense at their father's frugal yet hospitable table; we should not hear of dancing masters and music masters, of French and Italian masters; they would have no time for them. We should not see gaudy robes and glittering trinkets dangling on the counter. (86-87)

The author is in no doubt about the correlation between the dangers of social mobility and the attractions of 'glittering trinkets'. Those on their way up the social ladder were not capable of cultured expressions and instead lapsed into vulgar approximations of elite taste. In a similar way that extreme transparency could destabilize the sensitive balance of modesty and decorum, materials that exhibited extreme reflective qualities were also susceptible to the censure of complex systems of taste.

The proliferation of luxury commodities caused the authors of *Domestic Duties* to advise their female readership about the appropriate ratio between decorative quantity and a drawing room's spatial dimensions. Implicit within this equation is a socio-economic distinction between aesthetic standards for middle-class owners of modestly proportioned rooms in contrast to residents of more elite and expansive dwellings.

Those drawing-rooms which are fitted up according to the present style seem almost to arrive at Indian splendour, having papers with gold patterns, ottomans, chintz curtains, and Persian carpets, altogether fatiguing the sight by a multiplicity of ornaments, and a crowd of colours incongruously selected. These, too, as you have noticed, are frequently to be found in small rooms, with which they are inconsistent, and therefore ridiculous. Large rooms will admit of more license to fancy than can be given, consistently with taste, when rooms of smaller dimensions are to be

furnished. It is not well to make these too striking, or to crowd them with a variety of furniture, as it is the fashion to do. (193)

The consequences of inappropriate design decisions did not just disrupt hierarchies of taste but also hindered efforts to achieve a sensory equilibrium. Too much matter in too small a space exhausted the faculties of sight, suggesting that elite perceptual experiences could not simply be bought by cramming luxury commodities into a middle-class space. Even before the nineteenth-century expansion in the availability of household commodities Hannah More had been quick to draw moral conclusions from the impact of domestic luxuries when, in 1799, she wrote that women should 'not content themselves with polishing, when they are able to reform; with entertaining, when they may awaken' (10). In More's eyes the domestic distraction of maintaining an object's sensuous surfaces was detrimental to the project of improving the female mind.

Some commentators maintained that the same principles of good design also applied to public as well as private spaces. In the 1830s and 1840s, gin palaces, so-called for their prolific use of glass, gas and polished metal surfaces, came under attack from the temperance movement (Schlesinger 267; Girouard *Victorian Pubs*; Cobban; Harrison). Other social venues were also targeted; on a visit to London in the 1860s the French historian, Hippolyte Taine, recorded his impressions of the Argyll Assembly Rooms in his travel journal writing about:

...middle-class industrialists, or their sons, or their managers, who visit the Rooms as a relaxation from their work with figures, coal or other trade. What they need is vulgar display, coloured glass lights, women in full evening dress, bold and loud dresses...civilisation polishes man, to be sure, but how tenacious is the bestial instinct still! (38).

Taine's negative coupling of industrial commerce with, what he interprets as, an almost sub-human and 'vulgar' aesthetics of illumination was brought into higher-relief through his reference to the 3rd Earl of Shaftesbury's belief, expressed in a letter of 1709, that 'We polish one another and rub off our corners and rough sides by a sort of amicable collision' (31). For Taine the cultivation of civilized sensibilities did not extend to the money-making middle classes. Later in the journal, Taine favourably described a visit to a more aesthetically subdued country drawing room which bears many similarities to earlier styles of design such from Ackermann's *Repository*:

A lofty drawing-room, the walls white and pearl-grey; the light colouring softened by the shades of evening. The wide central window was a deep bay; beneath it were flower beds and beyond, through the shining window panes, was a vista of green. A girl, beautiful, intelligent and cold, sat on a chair by the window, gravely reading a little book, a religious treatise. (93)

Negotiating the shifting status of luxury commodities caused problems for those members of society anxious to command cultural respectability. The potential pitfalls of such manoeuvres are played out in Dickens' portrayal of the Veneerings in *Our Mutual Friend* (1864-65). Dickens' authorial voice takes a negative stance towards the family's taste for interior design and newness which is ridiculed in both their name and an episode that exposes their parvenu social aspirations:

For, in the Veneering establishment, from the hall-chairs with the new coat of arms, to the grand piano-forte with the new action, and upstairs again to the new fire-escape, all things were in a state of high varnish and polish. And what was observable in the furniture, was observable in the Veneerings – the surface smelt a little too much of the workshop and was a trifle sticky.

(6)

Rather than possessing an effortlessly and inherently smooth sociability, the Veneerings' status is 'new' and 'sticky' having just been recently bought like their furniture from a workshop. Not content with using the surface qualities of polished wood to signify new wealth's drive for cultural status Dickens proceeds to underscore the commentary with an inventory of other domestic objects and the attributes of the guests who are captured in a complex web of reflections, 'The great looking-glass above the sideboard, reflects the table and the company. Reflects the new Veneering crest, in gold and eke in silver, frosted and also thawed, a camel of all work (20-21)'. These are negative representations of an aspirational struggle to attain symbolic capital.

Dickens employed craftsmen's techniques as metaphors for character traits on other occasions. In *Little Dorrit* (1855-57) varnish rather than veneer is used to expose flaws in the disagreeable character of Mrs General, 'The more cracked it was, the more Mrs General varnished it. There was varnish in Mrs General's voice, varnish in Mrs General's touch, an atmosphere of varnish round Mrs General's figure' (377). Dickens rendered the highly reflective finish as an active, unpleasant and unboundaried agent seeping out from Mrs General's body, infecting her speech, extending her spatial presence in an aura of varnish and, like King Midas, transforming everything that she came into contact with.

The circulation of instruction manuals such as Whitaker's, *The House Furnishing Assistant* provided a backdrop of professional opinion in support of literary representations like the Veneerings. The author warns that those who:

look to have their money's worth in material or labour, quite indifferent as regards artistic character or merit of design' will suffer in that ... So soon as time has destroyed the varnish, lustre, polish, or gliding upon which alone

the attraction of the article depended, the value will depart with its adventitious causes. (3)

The seductive surfaces that exploited and manipulated light were not reliable measures of worth and were not substitutes for labour and enduring material. What lies on the surface can only temporarily deceive the senses and will eventually betray poor quality goods and craftsmanship. In the same publication the glossary entry for gilding highlights the importance of exercising moderation, ‘the parts to be gilt should be chosen with care, and not over abundant, which would produce a tawdry effect’ (8). The entry for veneering details the strategy that makes the ‘surface appear as if the material had been of the finest and most rich quality; for this reason the ground may be of inferior wood, and the veneer of the most superior kind’. Like the furniture, Dickens’ Veneerings were made from a material whose ‘inferior’ substance was concealed by the deceptive treatment of surface appearance.

Concerns of materiality and status expressed through the character of the Veneerings had been building for some time. Intimations of an impending aesthetic and moral crisis were being voiced as early as the 1820s. In *The Grecian, Roman and Gothic Architecture*, William Fox Jnr, son of the merchant William Fox (Whelan 407) lamented a paucity of quality in interior design writing that:

The bad taste displayed in the interior of many of our best houses is also exceedingly striking – rooms are crowded with superfluous furniture...the eye, instead of being gratified with an assemblage of what is beautiful and chaste, and *appropriate*, is repelled by the glare of a mass of whimsical and costly absurdities. (Fox viii)

This evaluation of taste includes negative assessments of both an inability to judge quantity and quality. According to Fox the viewer is assaulted with unnecessary

amounts of objects coupled with glaring effect, which rather than seducing and pleasing the eye, in fact pushes a gap between subject and object. The perimeters of this gap are defined by an opposition between the corruption of the senses on one side and the rigours of the mind on the other. The writer aligns glaring objects with states of irrationality through references to absurdity and unreliable whimsy. Good taste was ruled by the mind and supported by the senses whereas bad taste seduced the senses and mental principles were abandoned. William Hazlitt pursued similar aesthetic concerns to Fox when a year later he wrote “On Vulgarity and Affectation” in which he maintained that surface appearance was not a trustworthy or reliable indicator of deeper aesthetic sensibilities:

I would rather see the feelings of our common nature (for they are the same at bottom) expressed in the most naked and unqualified way, than see every feeling of our nature suppressed, stifled, hermetically sealed under the smooth, cold, *glittering varnish of pretended refinement and conventional politeness*. (emphasis added 207)

The ‘glittering varnish’ essentially suffocated the purity of ‘nature’ in an artifice of false appearance.

That same decade the Scottish philosopher, Thomas Brown in his work, *Lectures on the Philosophy of the Human Mind* used examples of perceptual attractions towards lighting effects as evidence for his investigation into the act of discerning beauty. He argued that the emotional experience of beauty was not fixed, but contingent, circumstantial and relative. In support of this claim Brown discussed how the child and ‘savage’ responded to beauty in comparison to the adult:

The brilliant colours, in all their variety of gaudiness, which delight the child and the savage, may not, indeed, be the same which give most gratification

to our refined sensibility; but still they do give to the child, as they give to the savage, a certain gratification, and a gratification which we should, perhaps, still continue to feel, if our love of mere gaudy colouring were not overcome by the delight which, in after life, we receive from other causes that are inconsistent with this simple pleasure—a delight arising from excellencies, which the child and the savage have not had skill to discern, but which, when discerned, produce the impression of beauty. (36)

Therefore, children, ‘savages’ and upwardly mobile individuals such as the vulgar Veneerings did not acquire the ‘skill to discern’ pleasures of adult beauty from the immature appeal of brilliant ‘gaudy colouring’. According to Brown whilst the ‘refined critic’ still experienced ‘a pleasing emotion from the contemplation of those brilliant patchworks of colours’ he had nevertheless ‘learned to regard them as tawdry’ (36).

In her essay ‘Refracting the Gaselier: Understanding Victorian Responses to Domestic Gas Lighting’ Sarah Milan draws a correspondence between the aesthetic and social activities of Dickens’ Veneerings, the technique of veneering and new fashions for domestic gas lighting (97). Milan’s work is also of interest because she argues for a revision to previous scholarship’s dating of domestic gas usage; she claims that gas first began to be seen in middle-class drawing rooms in the middle of the century (85), rather than later as asserted by Schivelbusch. She concludes that these developments created confusions in cultural status stating that ‘The fashion for strong gas lighting and elaborate fittings can be viewed alongside the middle-class taste for ornate home furnishing’ (89). Whilst Milan fails to mention Edgar Allan Poe’s essay ‘The Philosophy of Furniture’ (1840) which offers a significant commentary on the state of domestic lighting design during this

period, Poe's position entirely supports her thesis and reveals the extent to which lighting practices informed and unsettled cultural dispositions.

Poe's essay launched withering attacks on the state of American, rather than British taste for glaring and glittering effects, but the correspondence between Anglo-American lighting practices was sufficiently similar during the first half of the nineteenth century to warrant inclusion here. The title alone is remarkable for the unlikely unification of two traditionally distant and hierarchically opposed forms, the intellectual practice of philosophy and the lowly artisanal practice of furniture-making. Moreover, Poe implies that furniture had the capacity to think and that philosophy could be a tangibly felt presence. Poe's text is worth quoting at length because of his unceasing attention to details, effects and judgements about the aesthetics of illumination:

Glare is a leading error in the philosophy of American household decoration — an error easily recognised as deduced from the perversion of taste just specified. We are violently enamoured of gas and of glass. The former is totally inadmissible within doors. Its harsh and unsteady light offends. No one having both brains and eyes will use it. A mild, or what artists term a cool light, with its consequent warm shadows, will do wonders for even an ill-furnished apartment. Never was a more lovely thought than that of the astral lamp. We mean, of course, the astral lamp proper — the lamp of Argand, with its original plain ground-glass shade, and its tempered and uniform moonlight rays. The cut-glass shade is a weak invention of the enemy. The eagerness with which we have adopted it, partly on account of its *flashiness*, but principally on account of its *greater cost*, is a good commentary on the proposition with which we began. It is not too much to say, that the deliberate employer of a cut-glass shade, is either radically deficient in taste, or blindly subservient to the caprices of fashion. The light proceeding from one of these gaudy abominations is unequal broken, and

painful. It alone is sufficient to mar a world of good effect in the furniture subjected to its influence. Female loveliness, in especial, is more than one-half disenchanted beneath its evil eye. (2)

For Poe appropriate lighting was even more important than furniture and he railed against the ‘harsh and unsteady light’ of domestic gas and its threat upon constructions of femininity.

Milan’s point about problems of status surrounding the growing fashion for ornamental lighting continues to be supported by Poe’s disparaging judgments concerning the popularity of glitter as well as glare. His suggestion that a love of flickering lights was infantile and idiotic has similarities with Brown’s belief in the necessity of learning perceptual skills so that childhood pleasures of bright colours can be cultivated into an adult appreciation of beauty. As Edwards remarks about domestic furnishings, ‘there are systems of knowledge that form and inform everyday life which are practical, contextually specific, and are learned and carried by people and objects’ (79). On the subject of mirrors Poe complains that with:

the attendant glitter upon glitter, we have a perfect farrago of discordant and displeasing effects. The veriest bumpkin, on entering an apartment so bedizzened, would be instantly aware of something wrong, although he might be altogether unable to assign a cause for his dissatisfaction. (4)

Poe proposed that light as well as furniture had the capacity to affect perceptual experience, producing or disrupting systems of taste or knowledge in the domestic environment. Exposure to lighting practices enabled perceptual exploration, adaptation or rejection of the materiality of modernity and in so doing could either threaten or strengthen cultural orders of taste. Poe’s concern about sensory over-stimulation and his aesthetic antipathy toward the flickering, glittering and glaring

domestic light marked a point of rejection and repulsion against the proliferation of highly ornamented illuminations.

Belief that perceptual attraction towards the lighting effects of glare and glitter was detrimental to the cultivation of good taste and mental maturity was accompanied by a belief that morality was also at stake. An article in the *Ladies Repository*, entitled ‘The Moral Worth and Beauty of Religion’ by the Rev. Uriah Clark in 1846 maintained that ‘Wealth and splendour may fascinate the eye, but can impart no principle to the mind’. He worried that because ‘Multitudes have been carried away by these glittering baubles... Virtue has been tarnished by the glitter of silver’ (354-55). Like Poe the Rev. Clark constructed a negative association between pleasure, perception and certain lighting practices in which he warned readers about the dangers of ‘the glitter of sensual pleasures’ (356).

A pre-occupation with the degenerative impact of intense lighting, coupled with highly reflective surfaces upon the aesthetic and moral health of the middle classes rose to a climax in Holman Hunt’s painting, *The Awakening Conscience* (1853) and Ruskin’s response in *The Times* to the image. The painting (see fig.2.26) depicts a woman located in a drawing room caught in a state of acute moral realisation when she is shown on the point of moving away physically and emotionally from her lover. Her gaze is focused upon and lit by the direct presence of daylight which floods in from the window. As viewers we see this evidenced through the reflection of daylight on the mirror at the back of the room. Domestic objects of luxury that display dubious surface qualities of varnish, polish, veneer, reflection and gilding surround the woman who, the viewer infers, was bought just like the ornaments; as the art historian, Caroline Arscott says ‘The items are newly

purchased and installed as is she' (170). According to Ruskin these objects were 'common, modern, vulgar' and with respect to the overall interior and all that it stood for he asked 'is there nothing to be learnt from that terrible lustre of it, from its fatal newness' ('The Pre-Raphaelites'). Eastlake shared Ruskin's abhorrence of modern materiality and the popular appetite for 'newness' which he believed women were particularly susceptible to, 'the ladies like it best when it comes like a new toy from the shop, fresh with recent varnish and untarnished gilding (83).

Whilst the commodities in Hunt's painting produce a complex and captivating manipulation of light, the woman is represented in a moment of transition in which she moves away from the abundantly sensuous environment towards the unprocessed and unaffected natural, unmediated light of the day. Thus two different kinds of light and accompanying visuality are set at odds with each other thereby exemplifying the cultural anxieties that surrounded expressions of status, value and morality. Rosemary Betterton observes that 'The immorality of the gentleman and his mistress has infected the inanimate objects which surround them' (89). However, supported by Latour's work in Actor-Network-Theory, and in light of the primary evidence within this chapter, I would argue that the activity of moral infection flows back and forth between subject and object, rather than remaining limited to the subject's influence upon an object.

What is at stake in these fictional and non-fictional judgements about the relationship between the association and appearance of human and non-human agents is an anxiety about value and how it is perceived through the senses. Lacan offers us a different insight into this uneasy interaction with the world:

that which is light looks at me, and by means of that light in the depths of my eye, something is painted – something that is not simply a constructed relation, the object on which the philosopher lingers – but something that is an impression, the shimmering of a surface....which is no way mastered by me. (96)

Lacan expresses an anxiety about the loss of reason or control when encountering ‘the shimmering of a surface’. In such a surface there is the contradiction of both seeing through a transparent medium but also of having one’s existence reflected back through that same medium. At one and the same time there is a phenomenological confusion about where the eye should rest. Torn between depth and surface there is no possibility of rest and the viewer must decide whether to look through the medium or look at a projection of themselves lying on the surface. Moreover, there is the unsettling possibility that the object of observation has agency, ‘that which is light looks at me’, thereby causing an alarming switch in the original and expected subject - object structure of power and consciousness.

At the beginning of the nineteenth century light mediating equipment such as window curtains were emerging as a fashionable novelty. By mid-century and beyond these auxiliary lighting apparatuses had embedded themselves within the daily fabric of elite and middle-class domestic living so that for the Baroness in Henry James’s novel, *The Europeans* (1878), the very sensibility of existence was dependent upon items like window drapery. These possessions were so significant that they accompanied the Baroness from Europe to America on her unsuccessful mission to achieve financial security. Arriving in America and making herself at home, James shows us how she arranged her belongings accompanied by her thoughts about what they meant to her:

There were India shawls suspended, curtain-wise, in the parlour door, and curious fabrics...tumbled about in the sitting places. There were pink silk blinds in the windows, by which the room was strangely bedimmed...What is life, indeed, without curtains?' she secretly asked herself; and she appeared to herself to have been leading hitherto an existence singularly garish and totally devoid of festoons. (48)

The Baroness knew how to make herself feel at home and knew what acts of aesthetic domestication she must undertake if she was to find an acceptable, even pleasurable, accord between her immediate external surroundings and her interior subjectivity. She was in possession of practical perceptual knowledge about how to handle the precarious balance of shine versus vulgar glitter or glare which, as we have seen, always threatened to unsettle levels of refinement and social dexterity. As this chapter has demonstrated, the roots of her knowledge were located earlier in the century when new perceptual skills, values and meanings were trialled, acquired and developed. Making sense of light within the drawing room was a perceptual priority that belonged to a wider engagement with the cultural practices of illumination. Light's existence in this space was neither fixed nor neutral and, as Vasseleu explains 'cannot be divorced from its historical and embodied circumstances' (12). In the period between 1780 and 1840, the intentional processing of raw, public light from the street into a refined and mediated lighting performance in the middle-class drawing room was evidence of a new perceptual need to engage with the world.

Chapter three

Patrician and Poetic Top-lighting

The study of light... is something more than a mere investigation of illumination. Light and things belong together, and every place has its light. Light, things and places can only be understood in their mutual relationship. The phenomenology of things and places is also the phenomenology of light. In general, they all belong to the phenomenology of earth and sky. The sky is the origin of light, and the earth its manifestation. Therefore light is the unifying ground of the world. Always the same and always different, light reveals what *is*. (Norberg-Schulz 5)

The constructed and technological nature of artificial lighting practices is plain to see: the application of scientific principles through specifically engineered and skilfully operated apparatus demands that artificial lighting should be recognised as a branch of technology. Yet acknowledging that daylight is also, to a certain extent, a technology requiring management, is harder to see. The professional architectural lighting specialist, Gregg Ander, nevertheless points out that daylight is a dynamic lighting technology that involves consideration of heat gain, glare, variations in light availability, and sunlight penetration into a building' (1).

Perception of and interaction with daylight is dependent upon cultural and technical factors; it does not just come to us naturally. But nature should not be written out of the equation, for as the feminist philosopher, Elizabeth Grosz, says 'Nature does not provide either a ground or a limit to human or cultural activity; nature is what inhabits cultural life to make it dynamic' (105). In the urban environment daylight is never entirely natural, or entirely cultural, but is rather a sensitively balanced, historically contingent resource.

In this chapter I continue to investigate dynamics between daylight, things, spaces and people, but move beyond the realm of the middle-class drawing room and explore how a seemingly disparate range of new spaces and cultural formations were connected through the use of an architectural technique known as 'top-lighting'. In its simplest form top-lighting is an aperture created in the roof of a building through which daylight passes and illuminates the interior; sometimes this aperture is left open to the elements, but more often than not it is glazed. Top-lighting deserves to be part of this thesis' study of light because throughout the first half of the nineteenth century it was used more extensively and frequently than at any time before 1780. However, the practice changed towards the middle of the century when the provision of light to interior spaces was no longer so heavily dependent on top-lighting. There are currently no studies on early nineteenth-century top-lighting so this chapter will provide a valuable addition to existing histories of lighting. I explain why new configurations of people, concepts and objects were drawn to circulate together within environments touched by light from above---light from the sky---rather than light from the street. Unlike chapters one and two in which the light of the drawing room was associated with the construction of feminine attributes through the mediating activities of transparent painting and interior design, the light under investigation in this chapter did not participate in the picturesque framing of views through windows. Moreover, the light was, more often than not, unmediated by fabric and frequently supported the public performance of masculine identities.

Constructing top-lit buildings was neither standard nor easy, but required precise knowledge of what would now be called structural engineering, combined

with a sufficient budget to purchase those professional skills and necessary materials. Although late eighteenth and early nineteenth-century developments in techniques of glass production combined with the new framing material of cast iron enabled increased flexibility of design, as seen in structures such as Loudon's Birmingham Botanical glass house of 1832 (Armstrong *Victorian Glassworlds* 167-183), there were still significant practical and financial constraints involved in executing designs for top-lighting. Windows and glass remained costly items until the abolition of taxation on glass and windows. After the expense of the initial outlay there were also ongoing financial commitments of maintenance costs. Prone to breakage, the panes often needed replacing. Achieving a water tight bond between the putty, glass and frame was a frequent problem and therefore interior water damage from leakage was a habitual hazard. Equally, condensation proved detrimental to the long term health of a building's internal structure (MacKeith 81). Therefore, for the private client commissioning domestic top-lighting there were many economic disadvantages to consider. Given that there were still considerable technical and economic obstacles to top-lighting it is interesting that, as Derek Phillips notes in *Daylight: Natural Light in Architecture*, instances of this lighting form dramatically increased at the end of the eighteenth century (xx). However, Phillips fails to account for the reasons behind such a significant shift in architectural lighting practices. This chapter investigates why the as yet unexplained change in architectural lighting practices occurred between 1780 and 1840.

The cultural function of top-lit buildings encompassed a range of emerging social identities and activities; new and re-modelled homes of the aristocracy and gentry; spaces of elite entertainment such as the Regent Street Pantheon (1772) and artistic exhibitions, for example the Royal Academy of Art at Somerset House (1780), Alderman Boydell's Shakespeare Gallery (1789), Thomas Hope's residence (1801-4) and Henry Fuseli's Milton Gallery (1797); sites of popular visual entertainment such as the Leicester Square Panorama (1787), Egyptian Hall (1812) and Regent's Park Colosseum (1827); institutions of national finance such as the Bank of England (in particular the architectural contribution of Sir John Soane between 1788-1833) and commerce such as the Burlington Arcade (1819); spaces of containment and control in the form of Jeremy Bentham's panopticon plans (1785); educational institutions like the Surrey Institute (1808-23) and architectural expressions of aesthetic taste such as Soane's house at Lincoln's Inn Field (1792). Never before had such a socially and functionally wide range of sites employed this previously limited method of interior day-lighting.

Due to restrictions of space a satisfactory analysis of all the sites referred to will not be possible. This chapter will not look at Jeremy Bentham's concept of the panopticon which has already received extensive attention from scholars such as Michel Foucault in *Discipline and Punish: The Birth of the Prison*, followed by Tony Bennett's re-interpretation of Foucault in terms of exhibitionary practices of surveillance in *The Birth of the Museum: History, Theory, Politics*. Equally, in-depth analysis will not be given to the significant and well researched area of popular entertainments such as panoramas and dioramas (Altick; Hyde; Oetteman; Mannoni; Gernsheim; Comment). Building on this research Gillen

D'Arcy Wood's contribution to the panorama and Sophie Thomas' interpretation of the diorama in association with other work (Galperin; Bermingham; Brewer) has theorized these entertainments' impact upon the formation of modern visuality and aesthetic practices. The architectural history of the arcade or commercial covered alley will only be referred to briefly as it has already received in-depth attention (MacKeith; Geist; Morrison; MacPhee). The role of the arcade within the development of a nineteenth and twentieth-century cultural imagination has been explored by Walter Benjamin and subsequently Susan Buck-Morris. Limited reference will be made to the prevalence of top-lighting of philosophical, literary and mechanics' institutes, even though, apart from a few articles, the subject is currently an under-studied area and deserves more attention than the scope of this chapter allows.

Across the broad scope of early nineteenth-century top-lighting a consistent pattern emerges in which three types of lighting struggled to attract and direct perceptual attention. These lighting types form a loosely defined configuration rather than firmly discrete set of units. The first section of the chapter concerns a pattern of light originating in middle to late eighteenth-century residences of the ruling elite located in both town and country where a mode of, what I have termed, 'patrician lighting' was practised and often specifically used to illuminate private art collections. With its origins in values of civic humanism and an Enlightenment emphasis on the importance of rational thought and intellectual endeavour, I argue that patrician light sought to generate an elite atmosphere which venerated Greco-Roman style whilst nurturing a progressive promise to cultivate, moral, responsible, productive members of society.

Section two, 'Lighting Public Art', focuses on the spread of patrician lighting from elite private residences into new spaces of aesthetic and intellectual consumption such as the Royal Academy, Boydell's Shakespeare Gallery and later the National Gallery at Trafalgar Square (1838). I question how these spaces of aesthetic exhibition 'invited new protocols of viewing' (*Bermingham Sensation and Sensibility* 24) and argue that through practices of architectural top-lighting a standardized approach to public aesthetic consumption emerged by the middle of the nineteenth century in which unmediated top-lighting was understood to provide the best illumination for the apprehension of art and in turn an effective means of embedding the institutionalization of cultural identities within the perceptual sensibilities of the gallery-going public.

However, as section three demonstrates, not all sites of public aesthetic consumption pursued the patrician mode of top-lighting. Another mode of architectural lighting materialized simultaneously with patrician top-lighting, which I label 'poetic lighting'. In addition to the term 'poetic', other titles such 'ecstatic' (*Watkin Thomas Hope and the Neo-Classical Ideal* 175) or 'romantic' lighting could be equally well used to define this alternative lighting practice which operated in dialogue with, and sometimes counter to, patrician lighting. Sir John Fleming Leicester's Gallery of British Art (1818) and the houses and collections of Hope and Soane all explored alternative modes of poetic lighting which drew down light from the sky into interior spaces. But they also tempered the austerity of patrician top-lighting by introducing filters of coloured glass, fabric, mirrors and asymmetrical arrangements of space. I argue that these treatments belonged to a Romantic register of cultural expression which sought to re-balance a perceived

over-emphasis on scientific Enlightenment discourses and re-focus attention on the value of individual, subjective, sensory experience.

One: Patrician top-lighting

The patrician mode of top-lighting possessed a heritage which can be traced back to antiquity. The central *oculus* or eye of the Roman Pantheon (c126AD) is the paradigmatic example of this lighting technique in which an aperture was cut into the apex of a domed roof (see fig.3.1). Open to the heavens, the sole source of light within the rotunda provided an atmosphere of dramatic lighting contrasts in which to venerate the gods and elite of the Roman republic. Many subsequent buildings of spiritual contemplation also favoured the use of an *oculus* design. The church of San-Lorenzo in Turin (1687) (see fig. 3.2) and the Chapel of the Holy Shroud (1667 to 1690) by Guarino Guarini and the church of San Andrea al Quirinale in Rome by Gian Lorenzo Bernini built between 1658 and 1678 (see fig.3.3) are three examples among many which used top-lighting to symbolize supernatural presence and support belief of the faithful. However, a significant process of aesthetic and functional transference occurred in the use of this mode of top-lighting towards the end of the eighteenth century. The feature of the *oculus* was appropriated for a British climate and culture by a range of Neo-Classical architectural projects in which private aristocratic residences and secular public buildings selectively modified what had formerly been a predominantly religious mode of architectural lighting. Associations of Roman republicanism and civic

virtue were kept alive whilst activities of ritualistic worship were abandoned in a commitment to the new authority of Enlightenment rationality. What emerged from this process of adaptation was a new form of secularized architectural daylight in which the light from the sky was carefully preserved. It remained unadorned by window drapery, uncontaminated by distractions of land or cityscape views, and untouched by interference of external ambient reflections and refractions. This was not the domestic and feminized light of the drawing room in which vertical windows were decorated with transparent paintings and ornamented with curtains. Instead patrician top-lighting was to be found in the more masculine arenas of both private and public art galleries, educational organisations, and institutions of national fiscal management. These sites of social activity used light from above to pursue imperatives of improvement and progress which, explains E.P. Thompson, originated in an eighteenth-century 'world of patricians and plebs'. Thompson goes on to add that 'it is no accident that the rulers turned back to ancient Rome for a model of their own sociological order' (395), in order to produce a 'calculated paternalist style of the gentry as a whole' (403).

A mid-eighteenth-century example of the elitist desire to import and incorporate Roman republican architecture into a private, landscaped and aristocratic environment is demonstrated by the activities of the banker and garden designer, Henry Hoare II, who owned the Stourhead estate in Wiltshire between 1741 and 1780. After the requisite educational journey of the Grand Tour, Hoare erected a number of Neo-Classical buildings throughout his vision of an Arcadian idyll. The principal lakeside view was reserved for an architecture of top-lighting, a version of the Roman Pantheon which Hoare commissioned from the architect,

Henry Flitcroft in 1753 (see fig. 3.4). In the new context of an eighteenth-century English landscaped garden the replica pantheon ‘signalled the patrons’ acquisition of a good taste and their embrace of a ‘modern Augustanism’ ‘ (Dixon 60), but the ancient and double meaning of a pantheon as ‘a gathering of numerous gods, or a temple to celebrate their powers’ (Craske and Wrigley 1) was only heard as a faint echo from the past. In the English country house powers were certainly being celebrated, but they were humanly immanent rather than divinely transcendental and the architecture, as Arnold argues, was ‘an essential vehicle through which a patrician culture could express its values’ (*The Georgian Country House* 116).

Ten years after Flitcroft built Hoare’s pantheon at Stourhead, Robert Adam completed the interior design for two major rooms at Kedleston Hall in Derbyshire, home of Lord Scarsdale. The hall and sculpture gallery of the saloon are a further example of how top-lit Neo-Classical architecture was used by the aristocracy to legitimate its claim to cultural authority (see fig. 3.5). Sixty-two feet above the antique statuary a coffered dome and *oculus* hung over the sculpture collection creating an atmosphere which, according to Peter De Bolla, presented the owner ‘as a cultured man, infused with civic virtue, good taste’. De Bolla goes on to emphasize, ‘it is important to remember that this taste is an invention, a fantasy, a cultural imaginary that reflects self-image back to this elite class’ (*The Education of the Eye* 208). The cultural imaginary of civic virtue seeped out beyond the structural boundaries and reproduced itself in other modes of cultural expression. Mary Collier, somewhat nostalgically, united the themes of architectural top-lit grandeur, noble birth and the right to rule in her poem “Kedleston Hall” of 1847 in which she focused on the saloon’s ‘beauteous dome’ and wrote ‘That ‘neath thy

roof goodness with greatness dwells' (70). Sensitivity to cultural values associated with top-lighting was present in painting as well as poetry. Discussing James Northcote's painting of the Henry Fuseli (1778) (see fig.3.6) Richard Dyer proposes that the artist's lighting of the subject was intended to convey that 'those who let the light through, however, dividedly, with however much struggle, those whose bodies are touched by the light from above, who yearn upwards towards it, those are the people who should rule and inherit the earth' (121).

By the turn of the century the English appropriation of the Roman pantheon had evolved from Hoare's garden feature, via the grandeur of Kedleston Hall, into a fashion within numerous elite and genteel residences, many of which used top-lighting to exhibit possessions of cultural capital (Beard 221). Robert Taylor, Henry Holland, John Nash, Benjamin Dean Wyatt, C.R.Cockerell and John Soane all favoured this mode of interior day-lighting within their designs.¹⁶ A particularly strong example of the transformation of pagan worship into the secular practice of aesthetic veneration within a pantheon is seen in the semi-private art gallery of Henry Blundell's home, Ince Blundell Hall in Lancashire. As an art collector Blundell commissioned a now unknown architect to construct a pantheon (c1802) (Pollard, Pevsner and Sharples 47) (see fig 3.7) which, like Kedleston Hall, was designed specifically for the display of art, in particular Blundell's collection of over

¹⁶ Other examples of elite spaces of private top-lighting can be found in a wide number of locations: Sharpham House, Devon. Architect Robert Taylor: top-lit dome c.1770. Newby Hall, Yorkshire. Architect Robert Adam: top-lit rotunda for a sculpture gallery 1767-72. Carlton House, London. Architect Henry Holland: top-lit room 1781. Attingham Park. Shropshire. Architect John Nash: oval cast iron monitor lights c.1807. Willey Hall, Shropshire. Architect Lewis Wyatt: clerestory lantern 1812. Oakley Park, Shropshire. Architect C.R. Cockerell: glazed dome. 1819 Waterloo Palace, Hampshire. Architect Benjamin Dean Wyatt: top-lit pantheon designs 1814-18 (never built). For the Duke of Wellington. Would have had a domed centre block, windowless like the pantheon.

400 pieces of antique statuary (Pearce, et al 207). A taste for Neo-Classical structures and Classical artefacts illuminated by a direct, unmediated light source had become a formula through which the drive to claim cultural authority could be expressed.

Although popular the pantheon-styled *oculus* was not the only available method of top-lighting. Like the *oculus*, thermal or Diocletian windows also have Roman origins and consist of a series of vertical windows placed around the elevated circumference of a dome. An early eighteenth-century example of this style can be seen in the saloon of Chiswick House, London, built for the 3rd Earl of Burlington c.1730 (Rosoman 667). Top-lit domes and other modes of roof-lighting were not just restricted to centrally important rooms; spaces of transit such as corridors and stairs were also illuminated in this manner. An early and dramatic instance of this is found in the seventeenth-century Tulip Stairs by Inigo Jones at the Queens' House, Greenwich (Blutman 36) (see fig. 3.8).

Out of all the architects working during this period Soane favoured top-lighting and its opportunities for different stylistic and functional variations more than most. His work requires deeper investigation because by working within and across both the patrician and poetic modes of top-lighting he pushed the operational and aesthetic boundaries of how both space and light were perceived in a range of cultural sites. Not only that, Soane's work leads us to an understanding that lighting trends and techniques did not perform as discrete categories but were rather a series of tendencies that were susceptible and responsive to each other and wider cultural discourses.

Born the son of a brick layer in 1758, John Soane transformed and elevated his original familial connections with the building trade into the professional occupation of architect. In effect he chose the head over the hand and valued the imagination of the architect over the practical skill of the newly emerging merchant builder (Hanson 13). This shift is significant for our purposes because, as we will come to see, it was fundamental to Soane's symbolic and interpretative use of light as aesthetically rather than purely functionally important. For Soane it was the use of light above all else in architecture which raised the profession from a practical skill into an imaginative art form. The various circles in which Soane moved mark the scope and interconnected dynamic of this historical episode in cultural practices of illumination. In 1788 Soane was appointed to the high profile position of architect and surveyor to the Bank of England. This placed him at the centre of the nation's financial politics and gave him valuable access to a select client-base. Many of those with whom he came into contact at the bank became private clients whose houses he re-designed. By 1809 Soane's reputation was of sufficient stature to secure the prestigious and influential post of Professor of Architecture at the Royal Academy. In a published series of lectures Soane disseminated his views on the practice and theory of architecture to the next generation of architects. Beyond these areas Soane also interacted with artists such as Turner and de Loutherbourg, actors such as Garrick and writers such as Coleridge, all of whose work was located in a broadly Romantic sensibility that explored the affective agency of illumination. Soane also frequented the theatre and panoramic and dioramic exhibitions of London; sites which were quick to adopt and adapt innovations in lighting technologies for the purposes of

commercial entertainment. The fact that Soane worked across different lighting modes of patrician and poetic styles presents more than just an opportunity to discuss individual intentionality; Soane acts as a synecdoche for the period's wider cultural processes of perceptual flexibility and curiosity.

It should be acknowledged at this point that a Masonic reading of Soanean architecture and to a lesser extent architectural light, has received attention from various scholars (Watkin "Freemasons and Sir John Soane"; Galvin; Curl) and also the related interests of Soane's architectural draftsman John Gandy (Lukacher "Phantasmagoria and Emanations" 47; *Joseph Gandy*). Curl summarises the values of the Masonic organisation as follows:

Freemasons sought a return to simple, primitive, elemental truths, and a reconstruction of a noble, altruistic progress from those truths along the civilized path of architectural history...Freemasons desired to a rebuild a moral edifice, no less, as an example of what was noble and splendid and true in the first ages of the world. (Curl *The Art and Architecture of Freemasonry* 118)

It is certainly possible and legitimate to place top-lighting within Curl's interpretation which stems from Soane's interest in freemasons such as the architect, Claude-Nicholas Ledoux and the French archaeologist Alexandre Lenoir, through to Soane's membership of the organisation in 1813, and his subsequent commission for the re-design of the Masonic Hall, London in 1828-30. Masonic ideals of truth, nobility and morality are clearly translated into architecture in much of Soane's public work, the Bank of England being the central example. In these cases the role of top-lighting accords with Enlightenment privileging of knowledge and reason over dogma or emotionalism and is in harmony with the broader notions of patrician light. However, as this chapter will demonstrate, an over-

emphasis on this aspect of Soane's work risks occluding the emotive, subjective and individualistic sensory qualities of Soane's oeuvre. What is more, the complexity of lighting symbolism embodied within Soane's work is representative of wider tensions in the uses of top-lighting which occurred throughout the built environment during this period. The explanation of the Masonic influence alone cannot adequately account for the proliferation of top-lighting and we must look to the multiple influences and seeming stylistic contradictions that run throughout and beyond Soane's work. To do this the circumstances in which Soane first conceived of using the technique of top-lighting need to be considered.

As documented by Christopher Woodward, Soane's first recorded conceptualization of top-lighting occurred during a commission to re-design a small corridor (2m x 3.5m x 21m) into a picture gallery for the aristocrat, politician and writer, William Beckford, on his estate of Fonthill Splendens, Wiltshire (1786). Woodward argues that it was primarily the restrictive practicalities of the site which forced Soane into opting for a top-lit solution. But once Soane had discovered this method it was 'to dominate his fifty remaining years as an architect' ("William Beckford and Fonthill Spendens" 32). Had the design had been executed it 'would have been one of the earliest picture galleries in an English country house to be illuminated by top-lighting' (32). Woodward is not alone in identifying practical issues as a key contributing factor to the presence of top-lighting in Soane's work. Ptolemy Dean concurs with Woodward, but goes on to highlight that many of Soane's subsequent designs used top-lighting for purely aesthetic rather than functional reasons (28) and it is the matter of aesthetic choice that is particularly

relevant when trying to understand why certain cultural values, such as civic virtue, were attributed to these experiences of light.

Commissions like Beckford's, to re-design a pre-existing structure, made up a large part of Soane's early work. The luxury of starting afresh on a new-build project where there were no constraints caused by previous architectural styles and structures was not to be enjoyed by Soane until later in his career. One of the clearest examples of this early type of work can be seen in Soane's contribution to the structure of Wimpole Hall, Cambridgeshire (1791-5) for Philip Yorke, 3rd Earl of Hardwicke, where Soane had to take into consideration the previous seventeenth-century, early, and mid-eighteenth-century portions of the building (Pevsner 489-91). Similar instances of design constraints occurred during Soane's work at Chillington Hall, Staffordshire (1785-9); Bentley Priory, Middlesex (1789-94); Port Eliot Cornwall (1804-9) and Wotton House, Buckinghamshire (1820-22). These commissions demonstrate how the expanding class base of Soane's clientele spread out from a limited aristocratic circle to the wider and more populated terrain of the gentry and emerging middle classes (Christie 86) and matched the general trends in social mobility and aspiration. As David Cannadine explains:

The most obvious expression of competitive and conspicuous consumption, throughout the British Isles, was the construction of country houses. For England, the quantitative evidence suggests that the years from the 1780s to the 1820s saw a major upsurge in the buildings and extension of great mansions. (26)

Soane was part of and benefited from the impact of these wider trends which were taking place in the re-formation of elite culture between city and country. The

somewhat restricted nature of these projects is significant when understanding attitudes towards light because it is through the functional and aesthetic performance of daylight that the tension between previous architectural styles, associated personalities and cultural value systems becomes visible.

For any architect this cheek-by-jowl relationship between egos and aesthetics was fraught with potential hazards. The presence of previous owners' efforts to assert their authority through the medium of architecture, combined with the various architects' own agendas of self-promotion, meant that a country estate could turn into a three-dimensional, discordant palimpsest where each layer struggled to secure perceptual dominance. Much of this tension occurred in the external appearance of buildings where dramatic and elaborate façades with large and numerous windows demanded visitors' attention. Soane did not respond to this challenge by mimicking previous endeavours and sublimating his own professional ambition, yet neither did he attempt to out-do or overshadow the existing built environment. For Soane and his clients, the solution was to turn away from the external surface of these buildings and to claim specific interior spaces as indicators of fashion, wealth and taste. It is in these spaces that Soane's innovative use of top-lighting was put to work expressing both his architectural virtuosity and his clients' claim for cultural status.

The saloon at Chillington Hall, Lancashire (1785-9) (see fig. 3.9) exemplifies Soane's response to the task of adapting a medieval structure to accommodate his client's desire for a fashionable and contemporary environment. Dean makes the point that Soane's masking of the room's original side windows meant light now had to be provided from above (44). The requirement for daylight

was provided by a roof light within a saucer dome. However, this solution was not merely dictated by necessity. Dean makes no comment about the fact that this arrangement meant that a view onto the grounds was no longer available. I argue that this intentional cancellation of a landscape view is a crucial, yet overlooked aspect of Soane's work and top-lighting in general.

The lack of vertical windows within this space has a number of consequences. On the matter of windows and views Phillips makes the general observation that 'what is important is not only the content but also the experience of something at a distance as a rest centre for the eye' (6). This issue begs the question of rooms such as the one shown above, 'where then, does the eye rest if the view has been eliminated?' Whilst, in fig. 3.9 the decorative objects arranged around the room function as points to which the eye is drawn, the most striking area in the photograph is the brilliant pool of light and fine shadow pattern of fenestration which is projected onto the uninterrupted matte surface of the wall from the lantern windows of the dome above. In fact, it is almost as if the wall has become a screen for this perpetually altering display of light. This is the point to which the eye is attracted and where it lingers; the content of the view is light itself. Even if such a room were to also possess the more traditional vertical window looking out onto a landscape, the occupant would no doubt find that the different effects of lighting sources competed for their attention. In effect the focus of attention would be upon the visual manifestation of time itself; the constant unfolding of time through daylight. As Henry Plummer observes in *The Poetics of Light*, 'daylight is forever in the making. It drives and mutates through hours and seasons, shifting in angle, now grazing and now frontal' (139).

Windows can be understood as the materialised frame of a gaze. Through a window frame, a view of the exterior world is made, possessed and experienced and the viewing subject is in turn constituted (Armstrong *Victorian Glassworlds* 124; Friedberg). The view from the front-facing façades of the eighteenth-century aristocratic country house directly connected the occupant with the ‘non-functional, non-productive use of land’ that was the landscape garden, enabled by and designed in contradistinction to the new enclosure of surrounding countryside (Bermingham *Landscape and Ideology* 13). Such a construction is, as Bermingham states, an ideological ‘point of view of a specific class’ (3). The view from the country house of the landscaped garden and estate was concerned with claiming and asserting class identity and power through management and ownership of land. However, where and what is the literal and ideological ‘point of view’ when relating to the top-lit window? This window frames a skyscape rather than a consciously picturesque landscape and is therefore not concerned with the visual possession and tangible ownership of an object. When looking up and through this window a sense of self is achieved not by confirmation of one’s place in the outside grounded world. In fact, this form of top-lighting actively denies and turns away from the existence of earthbound realities.

It is worth taking some time to consider varieties of views in order to better understand how the top-lit window operated through a different set of perceptual techniques. In *Victorian Glassworlds*, Armstrong describes how the Victorian transparent roof invited multiple viewpoints, looking from outside into a structure’s interior as with the example of the Crystal Palace (143) or from within a space such as a railway station to the wider cityscape beyond (146). Armstrong’s

analysis is in sympathy with Henri Lefebvre's theories of the window's role in urban space. In *Rhythmanalysis*, he speaks of windows in terms of how 'opacity and horizons, obstacles and perspectives implicate one another because they complicate one another, imbricate one another to the point of allowing the Unknown, the giant city, to be glimpsed or guessed at' (33). But Lefebvre's interpretation of opportunities for becoming both subject and object within an urban network of gazes does not belong to the dynamic of perception involved with pre-Victorian instances of top-lighting. This is not to suggest that complex gazes through glass did not occur during this earlier period. The architectural historian, Jane Rendell, suggests that the Regency fashion for bow windows, which provided an extended glass frontage to the existing surface area of a building's façade, facilitated greater visual engagement between exterior and interior spaces. This was a mechanism through which people looked and were conspicuously looked at: in particular, the urban male rambler. Large bow windows were notable features of clubs and gambling establishments that catered for this type of clientele as Rendell describes in reference to the 1811 bow window of White's club which 'was the focal point of masculinity in the West End, providing a place both to flaunt social status and to survey the urban realm from an elevated position' (118).

Occurring at precisely the same time as one another, the bow window and top-lighting can be understood in contra-distinction to each other. The top-lit window was categorically not about an urban view on to the life of the street. It was not concerned with an exchange of looks and was not about affirming one's social position through the relationship between street and interior. The top-lit

technique actively sought to deny the reality of the street. Two significant instances of this turn away from the physicality of the street are found firstly in the top-lit elite entertainment venue of the Oxford Street Pantheon designed by James Wyatt and opened in 1772, and secondly in Robert Barker's Leicester Square panorama which opened two decades later in 1793. On January 27 the Pantheon opened for business and the *Gazetteer and New Daily Advertiser* reported that 'there were present upwards of seventeen hundred of the first people of this Kingdom; among whom were all the Foreign Ambassadors, the Lord Chancellor, Lord North, Lord Mansfield', Lord and Lady Clive and eight dukes and duchesses' ("News"). The genteel status of visitors to the Pantheon's assembly rooms was initially ensured by the requirement that they could only enter on 'the Recommendation of a Peeress' (qtd. by Sheppard *British History Online*). Once inside the building, visitors' status was reinforced by the architecture which produced an introspective experience of circulating, conversing and observing only with other members of an elite social stratum; perceptual awareness of the diverse metropolitan world beyond was discouraged. The new and popular entertainment format of Robert Barker's panorama also discouraged a continuity of perceptual experience between the city street and the interior space of exhibition. Barker specified in his patent of 1787 that the panoramic representation should be housed in a circular structure and 'lighted entirely from the top' (Barker 166). The sensorily immersive experience of viewing a 360 degree image inevitably removed spectators from the reality of the city and transported them to a painted world of idealized visions. Whilst the bow window provided opportunities for cross-gazing, the top-lit room did not produce viewing configurations which were based on

inside/outside interactions, but instead funnelled direct, ungrounded and abstract light from above; a light which was rarely accompanied by an exterior view. There was no landscape or cityscape associated with this form of transparent roof window, and there was no gaze out into the world.

In *Body, Memory and Architecture*, Bloomer and Moore state that 'The most essential and memorable sense of three-dimensionality originates in the body experience and that this sense may constitute a basis for understanding spatial feeling in our experience of building' (x). With this in mind it is evident that the penetration of daylight through a roof light, rather than a vertical window, into an enclosed space such as the saloon in Chillington Hall, had the potential to affect a person's perceptual relationship to their body and their environment in a very particular manner. After all, it is often via a view to the exterior world that we are able to orientate ourselves to our position within the building and beyond. Vertical wall windows provide two sets of sensory information, light and a view of the earth, horizon and sky (Lam 22), from which the perceiver can establish a sensory relationship between the space they inhabit and the environment beyond. However, top-lighting only provides the former element of light and a sense of the general canopy of sky, rather than a specific sense of place provided by an exterior and orientating view of land or cityscape. The top-lit window is not seeking to assert binary divisions of subject/object, inside/outside, but is instead concerned with creating a continuous opening between interior built space and external light from the sky as opposed to the ground.

The distinction between sky light and ground light is of central importance when understanding the proliferation in top-lit spaces. The qualitative constitution

of daylight perceived within buildings originates from three different sources, 'direct illumination from the sky dome, direct illumination from the sun, and reflected illumination from the ground and other naturally illuminated external surfaces' (Baker *et al* 2.10). The balance of these three forms of daylight will vary according to a range of factors such as the orientation and shape of the building, conditions of the surrounding environment, and the size and location of the windows. When a room is lit from above it follows that a greater proportion of light from the 'sky dome' will penetrate the interior space. Baker *et al* describe this mode of light conduction as a 'zenithal' passing of light from exterior to interior as opposed to a lateral passage of light (5.3) provided by vertical windows. My chapter argues that the zenithal control of light is particularly intense during the period in which Soane practised.

The significance of the focused zenithal treatment stretches beyond individual architectural commissions and relates to fluctuating attitudes towards the general consumption of light. Soane had chosen aerial lighting over and above the combined effect of light and an exterior view through vertical windows. For Soane the zenithal sky light was more valuable than lateral light. The former type of light excludes the exterior reality and is not earthbound, for when it enters the domed interior it has not come into contact with the surrounding ground. Through this form of light there was a direct connection between the sky and the room's interior but, whereas previously the unmediated passage of light had been harnessed for spiritual purposes, in the eighteenth century secular rituals of social grace had gradually taken over from religious rituals. Top-lighting now illuminated performances of social affirmation in spaces such as Soane's re-modelling of the

saloon of Chillington Hall and Wimpole Hall, Cambridgeshire (1791-5) (see fig. 3.10) where a dramatic top-light lantern dome, two storey's high sent light pouring down onto walls lined with yellow silk (Pevsner 491).

Not only did Soane use top-lighting in the saloon of Wimpole Hall, he also constructed seven roof lights which were inserted into the ceiling of a series of the building's corridors. The use of zenithal light in passageways is an aspect of Soane's style which has not received sufficient scholarly attention; nevertheless, I believe it is a defining and significant feature of his response to the kinetic element of spatial experience. Soane introduced top-lit designs for corridors in a significant number of his projects; the plans for Fonthill Splendens, the corridors of Wimpole Hall and his own home in Lincoln's Inn Field. A particularly striking example of Soane's desire to maximise available light through non-traditional strategies is his work at the Port Eliot estate in Cornwall where he was employed between 1804 and 1809 for the 1st Earl of St Germans. Dean briefly describes the innovative use of 'borrowed' light for a corridor located 'deep in the heart of the house, and with no opportunity for side lighting' where Soane 'created a bow-shaped alcove which was glazed at ceiling level to allow light to enter from the top-lit passage above' (105-6). The zenithal lighting present in these buildings' corridors provided an aesthetic as well as functional flow of illumination between the central hubs of sociability (such as the drawing room). In the Wimpole Hall corridors the combination of top-lighting and the undulating surface of repeated domes turned a previously neutral and ostensibly unstylized passageway into an aesthetically self-conscious space of transit.

Light never stuttered or halted between rooms in these houses because Soane ensured that these transitory spaces promoted a continuity of spatial experience (Middleton 30). Rather than experiencing a fragmenting sensation of plunging from a brightly illuminated room into a darkened corridor, the light continued and provided an integrated or unified journey from room to room. Todd Willmert refers to Soane's unification of spaces with reference to Dulwich Picture Gallery and Mausoleum (1811-14) (see fig 3.11). The lighting of public art receives specific attention in the next section of the chapter, so for the moment I want to maintain focus on Soane's concern for continuous spatial experience. Soane wanted the visitor to perceive the two sections (gallery and mausoleum) as one continuous encounter and was therefore opposed to the later introduction of a door between the gallery and mausoleum (57). According to Willmert it was not only the illumination which was important in producing a unified experience, but also the flow of heat from the ventilation system implemented by Soane. There is, therefore, a multi-sensory stimulation of the body that occurs in this space.

Dulwich Picture Gallery was 'an investigation of environmental concerns and architectural program in a non-visual, sensory manner' (58). Further evidence of Soane's interest in this matter is found in his use of 'wooden models to demonstrate his plans and to enable discussion with his patrons on, for example, the best ways of lighting staircases and reception rooms to avoid dark corners' (Beard 195). The everyday, functional act of passing through corridors was elevated to a new position of prominence through this specialised patrician handling of daylight. Light, people and elite culture all circulated more fluidly in these spatial arrangements.

The nature of perceptual continuity enabled through top-lighting was not just limited to private residences. The dynamic theme of circulation was also to be found in Soane's major contribution to public architecture in his work at the Bank of England where he was appointed architect to the Bank in 1788 and held this position until 1833. During the course of his tenureship Soane made numerous alterations to the site, the most significant being: the Old and New Four Per Cent Offices (1793-1797), (1818-1823) (see fig. 3.12); the Consols Transfer Office (1797-1799); the Stock Office (1792); the Brokers' Exchange Rotunda (1794-1795) and Bullion Office (1806-1808). Given the imperative for security, exterior vertical windows were not a viable day-lighting option and top-lighting was a functional necessity. Soane's aesthetic solution to the problem was based upon a series of domed, top-lit rooms and corridors. A direct link of influence can be traced between Soane's former teacher, George Dance the Younger's, domed and top-lit Council Chamber for London's Guildhall (1778) (see fig. 3.13) and Soane's own designs at the Bank of England. In fact, so close is the connection that many of Soane's preparatory sketches also bear the traces of Dance's hand (Summerson "The Evolution of Soane's Bank Stock Office at the Bank of England" 137).

In the Guildhall Council Chamber civic responsibilities of administration and debate, and attitudes of authority and duty, were performed in a setting devoid of distracting external views where the only available light came directly from the sky. Soane appropriated and extended this aspect of Dance's style of architectural illumination in his own work at the Bank of England. Daniel Abramson believes

that the clear cut Neo-Classicism favoured earlier in the eighteenth century had given way under Soane's over-determined influences. He writes:

Soane's planning strategies at the Bank of England naturalised architecture through the simulation of landscape scenery's irregularity and mutability, its chiaroscuro of light and shadow and its successive surprises and contingent effects. The picturesque's naturalism thus substituted for the Enlightenment's loss of faith in classicism's orthodox anthropomorphic proportions. (212)

The effects referred to by Abramson of chiaroscuro and multiple vistas can be seen in this engraving from 1808 (see fig. 3.14). However, his emphasis upon Picturesque versus Neo-Classical architectural styling is over-stated. The Picturesque love of asymmetry is not evident here, and the contrasts of illumination never produce the equally favoured effects of deep gloom or coloured light. And whilst the ornamental surface modelling is not strictly adhering to Classical orders, there is nevertheless an impression of Greek aesthetic systems at work. Patrician light has been softened, but has not been substituted by a poetic, Romantic, or emotive treatment of light. Soane reserved the latter architectural aesthetic for projects which favoured a greater emphasis on the presence of the personal rather than an institutional identity. Discussion of a number of these projects will take place towards the end of the chapter.

The theme of circulation can be observed in the flow of light through, round and under the various arches and corridors depicted in the print of the *Three Per Cent Office*. The immaterial movement of light provided a complementary environment for the material movement of both people and money. An engraving of the Rotunda (see fig. 3.15), also designed by Soane, represents a crowd of men, women, even dogs, occupied in social and financial transactions all taking

place under the lantern dome. Steven Connor's article "Gasworks" is of interest here, for although his subject concerns the network of practices involved in the production of nineteenth-century gas-lighting, the connections he establishes between materiality, immateriality and the kinetic aspects of capitalism could equally apply to the period's manipulation of day-light:

previously immaterial qualities, most particularly light and time, became increasingly subject to processes of stockpiling, investment, division, mensuration and quantification which seemed to reduce them to, or make them coextensive with, the realm of material extension. (2)

The relevance of Connor's point can be extended beyond the Bank of England's walls to other spaces of metropolitan business such as the arcade where the movement of people, money and commodities were also channelled. These corridors of commerce were filled with an abundant flow of top-lighting that provided an immaterial symmetry to the material dynamic of modernity.

Construction of these top-lit, commercial, and initially aristocratically owned covered urban passageways peaked during the opening decades of the nineteenth century.¹⁷ Friedrich Geist's European survey of this building type explains the impetus behind the proliferation of the arcade. He writes that arcades: responded to the specific needs and desires of a society in a specific era of its cultural and industrial development - namely, the need for a public space

¹⁷ Other top-lit arcades constructed during this period include: 1824 Upper and Lower Arcades Bristol by James and Thomas Foster; 1830 Lowther Arcade by Witherden Young; 1842-43 New Exeter Change by Sydney Smirke; 1825 The Corridor Bath by H.E. Goodridge, had coloured glass in ceiling; 1827 Argyle Arcade Glasgow by John Baird; 1836 Royal Victoria Arcade Ryde; 1838 Norfolk Arcade.

protected from traffic and weather and the search for new means of marketing the products of a blossoming luxury goods industry. (12)

An early and influential model of the arcade debuted in 1819 when the Burlington arcade in London, designed by Samuel Ware for Lord Cavendish, opened to appropriately polite and genteel members of the public. Underneath a ceiling of 'pitched glazed roof lights' (Mackeith 99) the movement of daylight, bodies and goods streamed through a conduit of over 180 metres (see fig. 3.16). The *Morning Chronicle* announced the opening whilst highlighting the architectural benefits to its readers:

the complete protection from the heat, as well as the inclemency of the weather, the brilliant display of fashionable company promenading during the principal part of the day, and the great attention paid by the inhabitants to keep out improper visitors, render this place more inviting than any other in the metropolis, or any part of the world. ('Burlington Arcade')

The *Chronicle*'s perspective of an embodied response to the arcade's manipulation of environmental conditions is interpreted by Macphee as the historical and perceptual collision of matter and sense; he writes of the arcade that 'objects are seen to encode different modes of experience, while the parameters of human perception through which they are apprehended change over time' (78). The architecturally innovative form of the top-lit arcade represents the aristocracy's opportunistic willingness to develop a formerly elite mode of lighting into a new and financially beneficial enterprise.

The role of light in activities of circulation and evaluation was not limited to the banking sector and commercial environment of the street arcade, but was also

at work in the dissemination of knowledge. At the end of the eighteenth century institutions of scientific and philosophical learning emerged as a significant phenomenon at both the level of intellectual discourse and architectural presence. More often than not the societies were housed within purpose-built spaces that expressed a new, public engagement with the institutionalization of research, professionalization of education and promotion of civic pride. Commenting on the preference for an *oculus* form of top-lighting in the design of these buildings, the writer of the *Memoirs of the Literary and Philosophical Society of Manchester* (1785) noted that 'modern architects...have placed, in the middle of their buildings, a principal part, which, eminent above the rest, gives the sight a fixed point, from which it can glance over all the rest, and so enable the mind to get, at once, a clear and distinct idea of the whole' (qtd. in De Bolla *The Education of the Eye* 73). In these buildings the *oculus* and its light resolutely associated the power of comprehensive vision with the refinement of mental faculties. In 1808 the newly established Surrey Institution chose as its home a site on Blackfriars Road formerly occupied by the Leverian museum of natural history (Kurzer). Upon conversion the top-lit rotunda was re-used as a lecture hall for a range of scientific and literary presentations. The fact that both a museum and an institution of learning occupied the same site defined by a dome of light emphasizes the exemplary use of the *oculus* as an architectural statement which asserted a belief in the common pursuit of knowledge for the greater good of society.

More often than not this pursuit was a gendered activity and society was qualified as male society. This association is particularly clear in the masculine milieu of the gentleman's club, where the library or reading room was only one

amongst a number of facilities available for the cultivation of an urbane male persona. That patrician top-lighting should be present in this space is thus not surprising. The top-lit entrance and staircase in the Athenaeum, Pall Mall by Decimus Burton (1830) and next door, Charles Barry's top-lit atrium in the Reform Club (1837-41) create a grand first impression framing the overall patrician atmosphere of the club experience.

The material-semiotic partnership between top-lighting and the systematized dissemination of knowledge was enthusiastically adopted beyond the capital. From 1813 onwards members could browse the bookshelves of the Devon and Exeter Institute beneath the domed lantern skylights of the library (Besley 52). Further up country the geologist, William Smith, designed the Scarborough Rotunda with a top-lit *oculus* in 1829 (Markus 203). The successful union of top-lighting and intellectual endeavour was majestically consolidated in Sydney Smirke's pantheon-like design for the nation's largest repository of knowledge, the British Museum reading room which was completed in 1857.

Two: Lighting Public Art

The use of top-lighting to illuminate the display of knowledge, either in the form of scientific artifact, archive or spoken performance, was accompanied by another coupling of light and cultural expression; the institutionalization of aesthetic experience framed by the lighting of the public art gallery. In this section I argue that for a period between 1780 and 1840 various efforts to shape aesthetic

encounters with lighting treatments co-existed, but that towards the end of this period one mode of lighting emerged as the dominant mode for aesthetic consumption. As the art gallery established itself as a major cultural space of the nineteenth century, a simultaneous process of light evaluation unfolded in an effort to reach a consensus about ideal standards of illumination for viewing, and what viewing in those conditions meant for both the individual and society as a whole. I suggest that the development of lighting within galleries did not follow a single path of teleological, categorical certainty, but that parallel, sometimes overlapping practices were temporarily active together. This somewhat fragmented and stuttering pattern indicates the period's unusually fertile conditions for perceptual experimentation.

One mode of gallery lighting developed directly from the elite patrician top-lighting discussed in section one with the pantheon-style *oculus* being replaced by a larger light source from monitor windows or skylights. This larger surface area of windows sought to eliminate the presence of darkness, gloom or highly contrasting shadows by producing a steady quantity of uncoloured daylight and belonged to a broader project to promote the belief that aesthetic appreciation cultivated sensibilities and contributed to the formation of socially responsible individuals.

The second mode for lighting art, which I have termed 'poetic' also used top-lighting, but it was neither the only source of light nor was it unmediated. Instead, filters of fabrics, stained glass and mirrors were introduced and areas of shadow were encouraged. This treatment of light produced a different set of aesthetic experiences which were less concerned with civic reform and more interested in stimulating an explicitly subjective and sensory response. While the first mode of

lighting formed the basis of future standardized practices of gallery illumination, the second mode of lighting failed to attract sufficient support to secure similar longevity. I argue that these interrelated lighting practices were produced by a range of cultural forces which sought to determine how the experience of art was shaped and what that experience was intended to mean in the formation of cultural identity.

Towards the end of the eighteenth century light, perception, and organized aesthetic consumption met for the first time in the new space and culture of the art gallery. The history of the art gallery and museum has been the focus of a considerable amount of scholarly work which has approached the subject from cultural, political, aesthetic and commercial angles (Bennett; Solkin *Painting for Money, Art on the Line*; Barrell *Painting and the Politics of Culture*; Taylor; Hooper-Greenhill; Waterfield). For this reason I do not intend to advance an argument which revises this body of research. Instead I am interested in practices of illumination and perceptual expectations which were formed in the new site of the art gallery and about what that treatment of light can tell us about cultural intentions towards perceptual experiences. Historical changes in the patterns of perceptual attunement to the affective properties of light is evidenced by the desire to provide appropriate qualities of illumination for the activity of viewing art; the right light or the wrong light could result in the success or failure of the aesthetic moment. Achieving the optimum angle for light to pass between object, subject and source of illumination was and still is an important point of debate in matters of aesthetic display. In *The Museum Environment*, Garry Thomson employs biological evolutionary theory as a rationale for how museums should be lit, 'The

eyes were evolved out of doors, and so interpret the scene best when directional light from the sun falls downwards on the scene and is supplemented by a hemisphere of scattered light from clouds and sky' (35). Whilst in some ways compelling, the notion that ideal lighting conditions can be recreated in accordance with physiological norms presumes that perception is a fixed phenomenon impervious to cultural pressures, and yet upon closer inspection these normative assumptions of scientific absolutes are frequently revealed to be constructed through cultural agendas.¹⁸ This complex and varied use of light within aesthetic spaces demonstrates the impact that cultural rather than physiological factors have upon the aesthetic encounter.

The ownership and appreciation of art had, up until the eighteenth century, been a royal, aristocratic or religious activity. The location of art objects was restricted to court, noble residences and churches where images were displayed in a variety of multi-functional spaces; rooms were rarely set aside for the sole purpose of viewing paintings. In the sixteenth and seventeenth centuries artefacts were framed within collections identified as cabinets of curiosities, also known variously as *Kunstkammer* and *Wunderkammer*, where an actual cabinet or room contained a heterogeneous array of natural, man-made, two and three-dimensional objects (see fig. 3.17). However, lighting conditions do not appear to have been a major factor of consideration and the criteria of appreciation were not based upon purely aesthetic principles. Perhaps a closer forerunner to the

¹⁸ Christopher Lloyd points out:

the English favoured top-lighting for the galleries in which paintings were to be hung, so that the light would strike the upper part of a painting and then be filtered downwards. The Germans preferred light from the side through tall windows, which would illuminate paintings hung on especially erected screens at right angles to the windows. (48)

nineteenth-century top-lit art gallery can be found in the long gallery arrangements in elite dwellings such as the fifteenth-century stately home, Knole in Kent (Cooke) and Hardwick Hall, Derbyshire. These areas were designed for residents to socially mingle and even exercise (60), and paintings, primarily portraits were frequently found adorning the walls in these side-lit rooms, but were not the defining focus of the environment (61; Carter Brown 11). The conscious control of light and the activity of aesthetic consumption in a purpose-built structure had yet to meet.

In the eighteenth century the collection, display and patronage of painting came to be associated with the formation of aesthetic taste and moral disposition, which formed a powerful cultural bond between the elite sections of society and nascent middle classes. In *The Discovery of Painting: The Growth of Interest in the Arts in England, 1680-1768*, Iain Pears charts the rise of fine art culture up until the point at which my study begins:

Possession, in other words, was elevated into a cultural event in a way previously impossible. No longer a static fact, it became a continual activity which preserved art from day to day for the sake of the future and the glory of the nation. The eighteenth-century collection was a triumphant act of enclosure with the owner mediating, in the same way as did the patron, between the work, and the viewer and determining the way art was seen...The collection was not only a visible symbol of wealth and social hierarchy, it was also one of its justifications, metamorphosing wealth into the discharge of a duty and an altruistic act. (180)

Performing acts of altruism through making, viewing and purchasing art was part of the agenda of the Foundling Hospital project. In 1739 Captain Thomas Coram founded this charitable hospital in London for orphans and abandoned children;

from the outset art and artists were involved. In his capacity as one of the original governors, the artist, William Hogarth conceived of a scheme to benefit both the foundlings and professional artists such as himself and others including Sir Joshua Reynolds, Thomas Gainsborough and Francis Hayman. By 1746 Hogarth had successfully persuaded his fellow artists to contribute work to the organisation. The attraction for the artists was that their work was displayed throughout the public rooms of the hospital and received exposure in a morally respectable environment. David Solkin imagines 'the overall effect of the ensemble being not unlike that produced by the saloon of an expensive and fashionable country house' (*Painting for Money* 162). The gradual expansive movement of private patrician ideals into the public sphere is evident, yet at this point in time no additional measures or adjustments in the display of these works were taken into consideration and lighting was not specifically arranged for the public experience of viewing paintings.

The same situation is to be found at the only other significant mid-eighteenth-century space where art could be publicly viewed, Vauxhall Pleasure Gardens. In addition to Francis Hayman's paintings for the Foundling Hospital, the artist also secured a large commission for paintings to be displayed in the fifty supper boxes located in the Grove at Vauxhall. In the final chapter we will see how light played a fundamental role within the gardens, but this role was not focused towards the activity of connoisseurial fine art consumption. Given that the gardens were a venue of evening and night time entertainment all Hayman's paintings would have been viewed under conditions of dwindling daylight and later by the glowing points of artificial lamplight in the surrounding darkness. Only a small

proportion of the supper box paintings have survived (Gowing 4) and from these it is difficult to establish whether the artist adapted his technique to accommodate or counteract the challenging viewing conditions. Writing on Hayman's work, Lawrence Gowing concludes that the paintings are not 'very finished; no painting in fact was more artless. They charm rather by a suggestion of natural simplicity and assurance' (10). But perhaps this was Hayman's intent given the specific context of their location. Why finesse brush stroke when the ambient light is insufficient for discernment of detail? Daylight in the form of top-lighting did not contribute to the perception of aesthetic experience in this venue.

The socio-political ideal of a republic of taste, which was formed during the middle to late eighteenth century through the association between aesthetic discourse and the affirmation of elite hierarchical status (Barrell *The Political Theory of Painting*), underwent significant restructuring as the new century dawned. What had functioned as a relatively private or select matter amongst restricted elite circles became a more fluid and open activity. As the forces of commerce and culture emerged a complex and precarious relationship of competition, conflict and inter-dependence between the two class interests ensued (McKendrick et al; Copley *The Fine Arts in Eighteenth-Century Polite Culture* 16). These pressures led to the professionalization of art practice. In 1754 the Society for the Encouragement of Arts, Manufacturers and Commerce (also known as the Society of Arts) founded by William Shipley was swiftly followed by the inauguration of the Royal Academy of Art (founded in 1768). These institutions held regular exhibitions where quality was assessed, prizes were awarded, standards were established and prices set. Solkin describes this as the

'watershed' moment for artistic production and consumption in Britain (Solkin *Painting for Money* 247; Pears 127). In terms of the alliance between daylight and the display of art, this 'watershed' moment of professionalized art practice was also significant.

Public response to, and attendance at, the annual exhibitions proved successful, almost too successful. Administrators were forced to introduce an entrance fee and reserved the right to refuse admission to anyone lacking sufficient social status. These were 'public' exhibitions in a limited sense, 'clearly what the organisers sought to create was a 'pure' space for the experience of high visual culture' (Solkin *Painting for Money* 178). Vulnerable to devaluation through over exposure, the acquisition of status through aesthetic experience needed to be carefully managed. Anticipating changes to come, Pears observes that 'the grand assembly of works of art, in other words, changed from being an assertion of independence into being one of conformity to the standards of the period' (106). The manipulation of light by which to apprehend art is very much part of Solkin's reference to the desire for purity in visual culture and Pears' 'standards of the period' which ultimately aimed for a consensus in the perceptual response to the aesthetic experience.

The developing conformity of the art gallery can be placed within the wider context of the emergence of museums. Using Gramsci, Tony Bennett argues that the museum must be understood as a tool of the state in the project of control through education.

For the birth of the museum could certainly be approached, from a Gramscian perspective, as forming a part of a new set of relations between state and people that is best understood as pedagogic in the sense defined

by Gramsci when he argued the state 'must be conceived of as an "educator", in as much as it tends precisely to create a new type or level of civilization'. (91)

Bennett goes on to claim that in the nineteenth century '...the museum emerged as an important instrument for the self-display of bourgeois-democratic societies' (98).

While convincing, Bennett's study primarily deals with these developments only at the level of discourse. The actual, material and specific architecture of these spaces through which discourse is articulated has been overlooked; furthermore, architecture's relationship to light is never addressed. Nevertheless, as will become clear towards the end of the chapter, the 'bourgeois-democratic' imperative was responsible for the gradual standardization of both functional and aesthetic practices of illumination.

Although the subject of art collection and display practices on the continent are beyond the scope of this study it is nevertheless worth glancing across the channel to gain an impression of potential influences, correlations and differences. Writing about the revolutionary changes taking place at the Louvre, Eilean Hooper-Greenhill makes the suggestive observation that:

The organisation of light and space played a crucial role in the re-articulation of the old palace as a new public democratic space, and the revelation to the gaze of that which had been hidden. The space was partitioned and illuminated. Plans for top-lighting which had been designed during the *ancien régime* but had not been carried out were revived, and the immense perspective was divided into bays separated by great transverse arches supported in double columns. (69)

The use of light and architecture that Hooper-Greenhill describes can be seen depicted in the 1796 painting by Hubert Robert (see fig. 3.18) No doubt the subject matter of Robert's submission to exhibition at the Salon of 1796 was influenced by

his position as curator and member of the commission in charge of overseeing the re-design of the gallery. In a sense Robert's painting acts a futuristic vision, for it was not until 1847 that this mode of top-lighting was used in the gallery (Cailleux, Roland Michel 1963:iv).¹⁹ However, fig. 3.18 is more than a representation intended to animate an architect's plans. It is a self-reflective depiction; it is art about art. To be even more specific, it is an image about how the light, structure and arrangement of art should be viewed. Not only that, through the painting's inclusion in the salon, Robert demonstrated that the traditional hierarchy of genres could accommodate this form of aesthetic meta-interpretation. In accord with Roland Michel's concluding speculation, I also believe that 'perhaps he [Hubert Robert] took the view that the best light to paint by was also the most suitable light for looking at Pictures!' (iv). The relationship between light for painting and light for viewing is a subject that reappears at a later point in my chapter, but in the meantime the arrangement of light within British artistic institutions must be addressed.

The foundation of the Royal Academy provided a nationally recognised institution for the practice and promotion of the arts. Initially the Academy was based in Pall Mall and Solkin has identified Richard Earlom's mezzotint *The Exhibition of the Royal Academy of Painting in the year 1771* (see fig.3.19) after Charles Brandois's painting as 'the earliest known picture of a London exhibition' (*Painting for Money* 274-5). Both Solkin and Matheson (40) pay close attention to the depiction of the crowd but neither makes mention of the overall illuminated atmosphere. At least a quarter of the image is dedicated to representing the

¹⁹ Between 1785 and 1787 the superintendents of the Louvre debated the merits of a top-lit solution, but by 1788 this option had been abandoned.

repetitive and simple pattern of roof lights which function as a strong visual contrast to the room below and heightens the crushed impression of frames and spectators. The ideal of the ordered, elevated and illuminating ceiling with all attendant associations of rational, patrician values is strongly and ironically juxtaposed to the exhibition's chaotic representation, for in reality a trip to the annual exhibition was invariably a noisy, stuffy and distracting affair. This mildly satirical treatment of exhibition viewing is a theme that persisted, and increased when in 1780 the Academy re-located to William Chamber's re-design of Somerset House on the Strand. It is no coincidence that, as the top-lighting became grander, the satirical representations of spectatorship became sharper. The strain of achieving a balance between the pressures of the market place, emerging middle classes and aesthetic principles were played out between the zones of floor and ceiling in the exhibition room. I believe that the adaptation of patrician top-lighting was an idealistic effort to neutralize the potentially damaging effects of commerce and the crowd.

The influence of the architectural complex at the Louvre is present in Chamber's work for the Academy (Murdoch 12), but his use of daylight in the main display space of the Great Room predates and exceeds those in which Robert was involved. The Great Room was accessed via the main staircase, an impressive spiralling curve culminating in 'a blaze of light at the top, forming an allegory of enlightenment suitable for an educational institution' (14). Murdoch's reference to the Enlightenment and the institutionalization of education is significant as it emphasizes top-lighting's role in efforts to systematize viewing practices. Fig.3.20 shows a print by Pietro Antonio Martini, after Johann Heinrich

Ramberg's painting (1787), depicting the Prince of Wales and Joshua Reynolds at the centre of the Great Room. It is crowded with art and visitors who 'entered the Great Room itself, the very temple of art, the roof of which, as if it were that of the Pantheon in Rome, was fictively open at its centre' (Murdoch 15). Where in the original Pantheon light flooded in, here the *trompe l'oeil oculus*, a simulacrum of skylight, demonstrated the artistic talent of the institution's members. Real as opposed to painted daylight was provided by four semicircular thermal windows, similar in design to those used at Chiswick House, which provided 'an even wash of light across the walls' (15). However, this mode of lighting caused certain problems when viewing the paintings. In order to avoid light from the windows causing distracting reflections upon the canvases, the paintings were hung with their tops at a slight angle from the wall (17). This adjustment suggests that whilst the Great Room was notable for the impressive size and quantity of light it was, nevertheless, not the right kind of light. In spite of the necessity to tilt paintings away from the wall of the Great Room, Chamber's roof design still proved to be the 'most influential innovation' which had a strong impact upon the 'future design of picture galleries' (15). The intention behind the institution's architectural self-representation was designed to symbolically embed art practice within the respected field of intellectual endeavour, thereby giving equal weight to artists' mental as well physical skills.

The new architectural light of the art gallery was, to a certain extent, accompanied by new developments in treatments of light within art theory. Henry Richter's treatise, *Daylight: A Recent Discovery in the Art of Painting* (1817) discusses changes in the reciprocal relationship between art and light. The treatise

is framed as a dramatized theory of art. It is written in the first person as an account of a conversation between the writer and renowned seventeenth-century painters who appear as ghosts in an art gallery. The subject under discussion is the type and quality of light which should and could be conveyed through the medium of paint. A distinct difference of opinion between the old masters and the modern narrator occurs. The narrator asks the ghost of David Teniers the younger, 'Was there no clear sky in your day? And did not the broad blue light of the atmosphere shine then as it does now?' (2-3). A portrait painter's response to the question indicates what is potentially at stake, 'All this is very fine...but you are bound to demonstrate that this new light will not fritter away all the shadow, and with it all substance to' (7). For Richter the 'new light' of nineteenth-century art was clear, bright, free from excessive shadows and by implication shining straight down in a manner similar to the Royal Academy's top-lit exhibition room.

After the Royal Academy's relocation to Somerset House, it was to be over fifty years until an institution of national and international significance was to rival the Academy's top-lit facilities of display. In 1838 the purpose-built National Gallery opened to the public in Trafalgar Square. Earlier iterations of the gallery had existed at 100 Pall Mall from 1824, and then 105 Pall Mall in 1834, but according to a complaint from a correspondent to *The Times* in 1826, the first space proved to be inadequate, 'one is stewed to death and half suffocated for want of space and fresh air' ("National Gallery, Pall Mall") and in Anthony Trollope's opinion the space was 'dingy' and 'dull' ("The National Gallery" 166). With 'growing concerns for correct lighting...the definition of a well-dressed, properly instructed public were now central' (Taylor 47), therefore a new location

for the nation's art collection was sought and the architect William Wilkins won the commission to design an improved space more suitable for displaying the nation's art collection in the centre of the capital (Taylor; Martin; Conlin *The Nation's Mantelpiece*). The significance of gallery lighting was now of such importance that it was discussed, in detail, by the government Select Committee on Arts and Manufacture led by the reformer William Ewart, MP for Liverpool. In 1836 the committee consulted Baron von Klenze, the architect of the Pinakothek in Munich, for his views on principles of correct lighting. Unlike the Royal Academy's practice of tilting pictures away from the wall, Klenze maintained that with careful management 'the large pictures are in very large rooms lighted from above...the rooms are so arranged that the spectator is not annoyed by reflected light; but wherever he stands he sees the pictures without any reflection' (qtd. by Taylor 47). Brandon Taylor goes on to conclude that the ordered display of art arranged in a 'scenario of adequate light and uninterrupted attention from a distance stands at the foundation of modern curatorial practice' (47). Yet the foundations were not entirely satisfactory and further architectural adjustments were proposed for the gallery including designs by James Pennethorne, a pupil of Nash who was influenced by Soane, who followed the German model and recommended that the lighting of galleries 'should be high, that the light should be admitted through very thick glass, free of colour, so as to be as much diffused as possible; that the gallery should be a mass of light, and not lighted by only rays of light' (qtd. by Tyack 124).

Charlotte Klonk argues that attention to and alterations of gallery lighting practices were 'a vital ingredient in the debate concerning the display of the

pictures in the National Gallery in London' which she believes led to 'a new understanding of visuality' (331). Constructing and implementing the ideal viewing conditions for aesthetic consumption belonged to the wider project of social improvement through rational recreations. Art, space and the right kind of light, i.e. not glaring, had the capacity to intellectually and physically renew the stamina of the urban dweller; it was a coping mechanism, a cultural safety valve that functioned to ensure the momentum of daily business continued unaffected.

The Royal Academy and National Gallery were significant due to their public status, high profile royal patronage and government support. Other public or commercial venues were also interested in providing suitable environmental top-lit conditions for the acquisition of cultural knowledge: the Great Room in Spring Gardens which, because of its twelve metre skylight, had in the 1760s had been used by the auctioneer David Cock as an exhibition space for the Society of Artists; Christies top-lit auction space (founded 1766) (see fig. 3.21); Ackermann's print shop (see fig. 3.22); Thomas Macklin's print shop-turned Poet's Gallery on the former site of the Royal Academy in Pall Mall (1788); Alderman Boydell's Shakespeare Gallery (1789) (see fig. 3.23); Fuseli's Milton Gallery (1799); the opening of Cleveland House by the Marquis of Stafford to select members of the public (1806); Dulwich Picture Gallery (1811-14), William Bullock's Egyptian Hall (1812) and Regent's Park Colosseum (1827). From this list, which is far from exhaustive, I will touch upon only two sites, Boydell's Gallery and the Egyptian Hall which indicate how the patrician mode of top-lighting was rapidly permeating mainstream metropolitan culture.

Boydell's Shakespeare Gallery is particularly interesting because of the purpose built Neo-Classical design by George Dance the younger which consisted of three interconnecting top-lit exhibition rooms. A press clipping describes the building and its lighting as follows:

The space will be no less than 140 feet by 30, divided into three rooms, all above 40 feet high. They are lighted from the roof. Under them, on the Ground Floor, will be a Gallery of equal length and breadth, similarly divided. This is to be hung with framed prints --the upper rooms with Original Pictures. The staircase--the Arrangement of light--the colour of the stucco--and the street front, are the objects here to shew [sic] skill in Architecture. (qtd. by Friedman 70)²⁰

Bermingham observes that Boydell's project and other similar galleries were formed under very specific circumstances. She writes:

In the context of English constitutional liberty, the government and public-spirited institutions rather than kings were felt to be the proper sources of artistic patronage. In opposition to French royal absolutism, the image of Periclean Athens was held up as the model of what art patronage should look like in Britain. (*Sensation and Sensibility* 150)

Although Bermingham never comments on the presence of top-lighting as an active perceptual component in spaces such as Boydell's gallery her political analysis that patrician values were channelled into enterprises of social improvement provides further contextual weight to my argument that practices of top-lighting were directly involved in the formation of a drive to shape cultural subjectivities at the level of a non-linguistic, pre-reflective bodily consciousness.

²⁰ Original source V&A press cutting vol II, 436. unidentified newspaper 14 May 1788.

In 1812 patrician top-lighting was popularized. The collector, traveller and showman, William Bullock, opened his premises, the Egyptian Hall, Piccadilly, to the public for an entrance fee of one shilling (Altick 235; Pearce "William Bullock: Inventing a Visual Language of Objects" & "William Bullock: Collections and Exhibitions at the Egyptian Hall"). Designed by the architect Peter Frederick Robinson, the 'Pantherion', or main display room, was top-lit by a large glazed dome and used for a number of different display purposes. Initially the space contained a miscellaneous fusion of natural history objects, palm trees and stuffed animals (see fig 3.24). In 1817 Bullock opened his Roman Gallery 'consisting of antique marbles, jasper, agate' (Bullock & Guillon Lethière) with a roof 'formed of three cupola windows' (4). Bullock claimed that a trip to the gallery would induce in visitors a 'feeling of patriotism' through the instructive activity of observing 'standards of excellence' in 'productions of antiquity' (2). Later, in 1820 the painter, Benjamin Robert Haydon hired the former Pantherion from Bullock as he considered the space suitable for the exhibition of his large history paintings. Bullock invoked and commercially benefited from the former cultural authority of the eighteenth-century aristocratic collectors such as Lord Scarsdale and Henry Blundell, and exhibited major works of art whilst also running a commercially viable business.

Although many of the venues mentioned above shared a similar cultural agenda and lighting practice with the Royal Academy and National Gallery, other spaces exhibited different tendencies of display. This next section considers a different configuration of cultural intentions realized and reproduced through alternative lighting treatments. Institutions and commercial entrepreneurs were not

the only arbiters of taste concerned with the quality of light for displaying art. Artists themselves were often the most particular judges of correct lighting conditions and not all artists favoured either painting or displaying their work in heavily top-lit conditions. A well known example of an artist stating their requirements for the hang of their work is Thomas Gainsborough's strained negotiations with the committee of the Royal Academy. In 1784 Gainsborough terminated his relationship with the Academy due to a difference of opinion about how his work should be positioned within the space of the Great Room:

To the Gentlemen of the Hanging Committee of the Royal Academy.

Mr Gainsborough's Compls to the Gentlemen of the Committee, and begs pardon for giving them so much trouble; but as he painted the Picture of the Princess, in so tender a light, that notwithstanding he approves very much of the established line for strong Effects, he cannot possibly consent to have it placed higher than five feet & a half, because, the likeness & Work of the Picture will not be seen any higher; therefore at a word, he will not trouble the Gentleman against their Inclination, but will beg the rest of his Pictures back again. (qtd. in Hutchison 50)

Light and its aesthetic effect caused Gainsborough and the Academy to part company. Gainsborough was not speaking about a metaphorical light, but the actual light in which he painted, the effect it had upon his handling of paint and his desire when displaying his work to maintain a continuity of sympathetic lighting for fear that the aesthetic impression would be lost. The connection between painting, perceiving and illumination is drawn together by Georges Teyssot in his work on the architectural history of the museum; he writes, 'there seems to exist a reciprocal relationship between the environmental conditions suited to the creation of a work of art and the means of its display, the source of which will always be

'illumination' (61). From this point on Gainsborough exhibited his work in a purpose built space in his garden at Schomberg House, Pall Mall, London.

The overlap between artists' studios and exhibition venues produced further interesting variations on lighting arrangements for public viewing. Benjamin West's gallery at 14 Newman Street, London, which he occupied from the 1780s until his death in 1820, used a combination of light, architecture and interior design to produce very specific perceptual conditions in which to experience his work. A first hand account describes the gallery:

a canopy resting on slender pillars stood in the middle of the room, its opaque roof concealing the skylight from the spectator, who stood thus in a sort of half-obscure dimness, while both pictures received the full flood of light. The effect was very fine and at that time novel. (qtd. in Waterfield 78)
A piece from 1822 in the *Examiner* provides a fuller sense of the space and effects of lighting:

The New Gallery is a noble, lofty, and spacious room, or rather a double apartment, connected by a grand arch with a narrow gallery of approach. The two rooms measure nearly 100 feet in length, by 40 in breadth, and 26 in height: the roof is supported by eight lofty columns: the spaces between the columns and the walls and filled with glass, which is sloped in an angle of about 45 degrees; thus a broad and uninterrupted volume of light is shed directly on the Pictures, which displays them to the greatest advantage. The rooms were erected under the direction of Mr Nash, who has constructed a building which far surpasses we believe any other Picture Gallery in England. ('West's Gallery')²¹

In a painting of West's gallery by J. Pasmore the Younger (see fig. 3.25) the dominant visual action takes place above the spectators, even above the

²¹ This was not Nash's first involvement with the design of picture gallery. In the first decade of the nineteenth century Nash was responsible for a distinctive approach at Attingham Park, Shropshire.

paintings. The dynamic thrust of the dark swagged central area of the ceiling is offset by a strip of skylights that run along the edge creating a pronounced depth of field which provides a large, relatively blank surface against which everything else is defined. Flat, hard surfaces of the structure are disrupted through the repeated use of vertical and horizontal fabrics, which complicate the behaviour of light within the space. West's gallery arrangement was not unusual. In the studio and gallery of Turner, which he opened in 1804 at 64 Harley Street, daytime illumination was provided via a central skylight accompanied by diffusing nets and tissue. These alternative lighting treatments defy a neat categorisation of stylistic principles (they did not belong exclusively to either patrician or poetic modes of top-lighting) and they were not systematically reproduced in other locations; therefore the detailed identification of a widespread trend is not feasible. However, what these individually determined conditions of lighting indicate is that a comprehensive standardization of gallery lighting had not yet taken hold of public aesthetic consumption and for the moment the space of the aesthetic encounter still carried with it the trace of individual expression.

Another example of an individualistic vision of ideal viewing conditions for aesthetic exhibition occurred in Sir John Fleming Leicester's gallery of British art, which used fabric and mirrors as a device for filtering and dispersing light. Sir John was an influential patron and collector of British art who expressed his commitment to artists such as Turner by turning his private collection into a public resource with the aim of promoting an aesthetic national identity and securing, in Chun's phrase, 'private glory' (175). Leicester acquired a house at 24 Hill Street, Berkeley Square in 1805 and converted the top floor library, probably designed by

Thomas Cundy senior, into a picture gallery which made ‘the best use of natural light through a shallow dome on the roof’ and opened to the public in 1818 (177) (see fig. 3.26). An alternative to the patrician lighting of the former library-turned-picture-gallery was created specifically for the display of Gainsborough’s *Cottage Door* (1780) (see fig. 3.27). It is no coincidence that the heightened attention to lighting in one area of the gallery was connected to the display of Gainsborough’s work who, as we have already seen, was intensely attentive to the agency of light in the aesthetic act. The room was darkened by sealing off the penetration of external daylight with a comprehensive fabric canopy which hung from the ceiling and produced the effect of a ‘tent room’, a style which both Chun and Bermingham identify as French in influence (Chun 180; Bermingham *Sensation and Sensibility* 145). In addition lamps and mirrors were introduced into the space so that, as Bermingham notes, any available light was dispersed and multiple views of the painting could be enjoyed.²² An account from the *Parthenon* in 1825 reported:

[a visit to the gallery was] heightened by the judicious arrangement of the light and surrounding accompaniments, the “Cottage Door” of Gainsborough possesses a perfectly magical effect. Glowing with the richest and most voluptuous, yet subdued and mellow tones, it meets the eye with that peculiar charm which is yielded by the mild splendour of the evening sun, tinging the harmonious surface of the autumnal landscape with a still more luxuriant hue. (“Sir John Leicester’s Gallery” 231)

The presence of two distinctly different lighting treatments within the one space of Leicester’s gallery demonstrates that the subject of lighting conditions for aesthetic

²² However, Bermingham does not consider the presence and impact of visitors’ reflections. This was, after all, the same decade in which the Heptaplasiessoptron debuted at Vauxhall Gardens. This venue will be discussed in greater detail in the final chapter.

consumption was an active and foregrounded aspect of the experience, rather than a passive set of normalized environmental features which were taken for granted. As Bermingham says, 'the tent room announces and facilitates an appreciation of the work of art that is wholly aesthetic and a visual pleasure that is derived from a formalist understanding of issues of style and technique' (*Sensation and Sensibility* 153) which, as I argue, was realized through the careful curation of light as well as art.

Although unusual for the display of fine art, the aesthetic treatment of the tent room, with its poetic themes of golden colours and twilight effects, was not unique in the world of popular visual entertainment at this time. Perhaps the most striking example of the demand for light entertainment was Daguerre's Regent's Park diorama (1823), with its darkened auditorium, dramatically painted large landscape scenes and complex use of light filtering fabric screens. However, there are also other instances of the tent-room style being used for purposes of artistic exhibition. The Regent's Park Colosseum complex, designed as a Neo-Classical pleasure palace by the architect Decimus Burton opened in 1827 and offered a variety of attractions for paying members of the public. To date most research on the Colosseum has focused on Thomas Horner's top-lit panoramic representation of London from St Paul's cathedral displayed within the building's main rotunda (Hyde; Altick, Comment). But the Colosseum's attractions also spread beyond the panorama. Underneath the main rotunda a secondary rotunda variously referred to as 'the Saloon of Arts' or 'the Hall of Sculpture' was, like the Gainsborough room of Leicester's gallery, decorated with coloured drapery and artificial lighting. The space contained a range of paintings and antique casts 'arranged amid the

graceful folds of stone-coloured drapery, and illumined with stone-coloured light'.

The writer went on to note that 'the lamps emit a stone coloured flame, made sick and phosphorescent by the daylight ("Blue Friar Pleasantries" 182). The less than favourable description of the unhealthily illuminated atmosphere also caused concern in an article from the *British Magazine* in 1830. This writer was of the opinion that the lighting was too 'general' and not appropriate for viewing three-dimensional work ("Exhibition: Colosseum, Regent's Park" 72). Enthusiasm for experiments in exhibitionary lighting practices was tempered by an increasing unease about the diversity of treatments and their affect upon the viewing public. Nowhere is this ambivalence more clearly seen than in poetic mode of top-lighting which used aspects of material mediation as seen in the tent-room style, but which pushed the aesthetic of filtered, coloured light considerably further.

Three: Poetic Top-lighting

In the decades bridging the eighteenth and nineteenth centuries an alternative illuminated aesthetic existed coterminous with patrician top-lighting's agenda of civic reform. I argue that the introduction of filtering fabrics, mirrors and coloured glass into the passage of zenithal lighting articulated values of Romantic self-expression. Rather than attempting to standardize lighting conditions for viewing art, poetic lighting was itself appreciated as an aesthetic experience. Intense pools of coloured light and deep recesses of gloomy shade were regarded as external

projections of the interior workings of the soul, creativity and individuality. Teyssot explains that the impetus behind this alternative aesthetic was motivated by:

a group of architect-painters sensitive to the "nocturnal" as well as the "diurnal", in other words, to the result of the refraction of solar light in the air, to sun light, to the "out-doors". Such artists, "ruinist" painters or architects of the paintbrush, opened walls to the *lumière mystérieuse* that so fascinated John Soane; they played with atmospheres, vaporised constructive elements, and raised stormy clouds up to the vaults. They formed an aesthetic of imperceptible architecture. (78)

Before pursuing Teyssot's reference to Soane, the work of Thomas Hope, whose style of interior design influenced Soane, must be taken into consideration in terms of Hope's sensitivity to the display of art within architectural atmospheres that fluctuated between, in Teyssot's words, 'nocturnal' and 'diurnal' lighting effects.

As chapter two has already noted, Hope was a key figure in establishing interior design as a recognised practice, but he also had an important influence upon how fine art was displayed. Hope's principles of taste were founded upon a desire to create a harmonious relationship between space, artefact and experience. As Watkin observes, 'the union of painting, sculpture and architecture, which John Britton so much admired at the Soane Museum, was also a real concern for Hope' (*Thomas Hope and the Neo-Classical Idea* 110). The designs within his major publication, *Household Furniture and Interior Decoration* are directly based upon his residence at Duchess Street, London which he purchased in 1799 and began transforming into a semi-public museum for his collections (Watkin *Thomas Hope and the Neo-Classical Idea* 100). Five years later Hope opened up his house and the alterations he had made in it to the scrutiny of the Royal Academy, but the academicians less than enthusiastic response to Hope's

vision can be read as the rub created by two different perceptual tastes encountering each other. Targeting the leading institution responsible for the management of aesthetic taste reveals Hope's ambitious intention to influence and engage with cultural authority. Hope later opened up his house to a more general, but nevertheless respectable public audience.

Whether artificial or natural, lighting for Hope was never merely functional. His use of lighting directly corresponded to the arrangement of objects and performance of actions that varied throughout the rooms. The statue gallery followed a predominantly patrician treatment and was top-lit with three lanterns placed amongst a coffered ceiling. But the walls were painted yellow to inflect the daylight with a warm glow that moved towards the more poetic tendency of illumination. Hope followed similar principles when designing his sculpture gallery at his country residence in Deepdene, Dorking (Watkin *Thomas Hope and the Neo-Classical Idea* 171).

In 1819 Hope added a picture gallery to his London house to accommodate his newly acquired collection of Flemish art. Charles M. Westmacott describes the top-lit room:

The centre of the ceiling which is divided into sunk pannels [sic] with gold pateras in the centre, rises from a gallery of circular headed lights, which are continued on the four sides of a quadrangle, with very slight divisions... on each side of the screen, ten of the choicest paintings are arranged, and hung on centres, so that the connoisseur may turn them to obtain a suitable light. (230 emphasis added).

In addition to the presence of daylight, the surface of the ceiling was animated by the design of shallow saucer-like indentations covered in gold thereby producing an unusual punctuated rhythm of golden decorative reflection. The second portion

of the quotation is particularly significant because it demonstrates Hope's keen sensitivity to light. The connoisseurial act of attending to formal qualities of paint upon canvas demanded that the paintings be seen in a specific light. The ability to move the object as well as oneself allow for a greater opportunity to adjust vision according to the vagaries of weather conditions and times of day that affect the quality of daylight. Although Watkin draws attention to the fact that 'Hope's knowledge of and interest in such technical details connected with the display and study of works of art is one of the most consistent features of the house' (122) he passes over the fact that Hope's interest in the display of art was defined through a highly nuanced handling of different ways in which light could be perceived. This novel method of hanging pictures may well have influenced the design of Soane's picture room at Lincoln's Inn Field, where the pictures are also attached to the wall with hinged brackets allowing the images to pivot. In addition, a combination of mirrors, abundant fabrics and natural and artificial light present throughout the house shared an aesthetic affinity with William Beckford's dramatic commissions at Fonthill Abbey, Wiltshire (1795-1813) (Watkin *Thomas Hope: Regency Designer* 36) whilst also anticipating the Gainsborough tent-room in Leicester's gallery and Soane's own house and museum.

Watkin's analysis of Hope's work concludes with reference to Loudon's labelling of Hope's work as 'ecstatic': defined as an additional point in the trajectory of picturesque through to sublime sensibilities where the intellect and the imagination is 'heightened to an extreme degree' (*Thomas Hope and the Neo-Classical Idea* 174). Watkin takes Loudon's categorization and uses it to establish an aesthetic rationale through which architecture such as 'Fonthill and the Brighton

Pavilion, the external effects of Deepdene and the strange interiors of Soane' (*Thomas Hope and the Neo-Classical Idea* 175) can be understood.²³ He goes on to explain on the next page that the ecstatic was produced in an 'age of fantastically heightened responses to the visual and literary arts...conjuring up a sort of Aladdin's Lamp atmosphere of magic and drama, of dazzling colours, of infinite vistas and so on'. Whereas Watkins only briefly touches upon the subjects of light and perception and fails to account for the significance of illumination within his definition of the ecstatic tendency, I propose that a subjective and expressive handling of light as a projection of individualistic interiority lies at the very heart of the poetic or ecstatic manipulation of architectural space.

Soane's contemporary and eulogist, the writer, John Britton, also favoured warm hues for the purposes of aesthetic experience. This propensity is particularly apparent in Britton's ownership of an article of furniture known as the Celtic Cabinet now in the collection of Devizes Museum (see figs. 3.28 and 3.29) (Chippendale). Surmounting the cabinet is a model of Stone Henge encased in a four-sided glass box. Three sides of the box use coloured glass, ranging from a panel in yellow, progressing through to orange and red glass. The front and top are made from clear glass. As the viewer circulates around the model different aspects of the monument can be viewed as if at different times of day. Intense colours of sunrise and sunset have been simulated through the filter of coloured glass that lies between the viewer and the model. Whilst not specifically top-lit, this

²³ John Nash made major contributions to the design of the Prince Regent's Royal Pavilion, Brighton between 1818 and 1823. A series of corridors and staircases are particularly interesting because of the innovative use of flat sheets of coloured glass skylights.

artefact is very much located within the production of a poetic or ecstatic experience of perception through illumination.

Soane's house and museum at 12-14 Lincoln's Inn Field forms the principal site of enquiry for understanding the poetic mode of lighting. In 1792 Soane purchased number 12 and over the next three decades he acquired numbers 13 and 14 which allowed him to merge and radically alter the internal structure of the three buildings. Functioning as neither an entirely public nor private building, perhaps the most suitable way of understanding the structure is that Soane's idealized public persona and bid for immortality is embodied in the building. During Soane's lifetime the building functioned as his domestic house, his office and as an educational resource for his students; upon his death in 1837 he bequeathed the building and its collection to the nation. His collection of artefacts occupy considerable wall, floor and ceiling space throughout the house, jostling for attention and creating an overall impression of barely contained organisation on the brink of chaos. The most explicit and experimental display of manipulated space and light began in 1809 when Soane built a *tribuna* (see figs. 3.30 and 3.31) a centrally placed, top-lit, circular gallery-type space. Like many artists and aristocrats Soane had made his own Grand Tour in 1777 and it is in the structure and decoration of the *tribuna* that he asserted his cultured status through the exhibition of original and reproduced antique sculptures and architectural fragments. This space is a negotiation between a creative, poetic imagination and the Enlightenment, patrician discourse of rationality and reason.

As a sort of vertical corridor, the *tribuna* provides the primary source of illumination within the centre of the house. Because the shaft of light is allowed to

fade and degrade as it descends from the roof down into the darkness of the crypt, its deterioration becomes the very focus of aesthetic experience (Soane 50).

Commenting on the role of illuminated contrasts Plummer sensitively interprets the perceptual potency of darkness and shadows as a 'realm of darkly fertile light' (75). The subtle but crucial slip between darkness and light provided the essential element of Soane's creation, that of contrast. Soane's interest in perceptual effects of movement between illumination and partial obscurity sits firmly within a tradition of the Burkean sublime:

to make an object very striking, we should make it as different as possible from the objects with which we have been immediately conversant; when therefore you enter a building, you cannot pass into a greater light than you had in the open air; to go into one some few degrees less luminous, can make only a trifling change; but to make the transition thoroughly striking, you ought to pass from the greatest light, to as much darkness as is consistent with the uses of architecture. (Burke 74)

But if sublime awe is to be felt here, it is generated not through exposure to raw and unmediated nature, but rather an awe inspired by the artifice of this immersive environment (Middleton 30).

Leading off from the *tribuna* Soane's house becomes a dizzying labyrinth of interlinking and variously top-lit passageways and rooms. In all of these interior paths Soane uses top-lighting to actively draw the occupant through space (see fig. 3.32). As has been demonstrated in the first section of the chapter, top-lit corridors were an innovative design feature in aristocratic dwellings and whilst the lighting in the Lincoln's Inn corridors was also significant, the perceptual result in Soane's own house is somewhat different. Where the patrician light of the corridor draws light and bodies through space with a clear logic of household social order,

at Lincoln's Inn the progression through the space is more concerned with attitudes of lingering aesthetic contemplation. The management of light in these spaces is decidedly picturesque and poetic. These intentions are clearly articulated in Soane's 1835 guiding text to the building which includes descriptive contributions by Soane's co-writer, the novelist Barbara Hofland. Between the Corinthian colonnade and the picture room readers are informed that 'there is also a view into the Monk's room, which displays some powerful effects of light and shade' (35). And later 'on leaving the monument court and entering the corridor, we become sensible of the value of a long unbroken vista as a source of the sublime and picturesque' (36). The convergence of corridor and top-lighting produce views which entice the perceiver to construct their exploration of the environment by framing their movement through the house with various picturesque views. To support this kind of activity the dynamic capacity of light is co-opted. Plummer suggests how this process occurs:

Inflective light becomes a catalyst which inspires and motivates locomotion in space, imaginative transports, and even sublimated dreams of entry to realms beyond. Such light grants us a spatiotemporal future by offering unfixed optical parts which we may take and act out through space and time, empowering us to participate creatively in our life-world, rather than remain alienated as submissive spectators or neutral machines. We are given opportunities to respond and act 'in', 'through' and in relation 'with' the world... (75)

The light of Soanean corridors is indeed 'inflective' for it seeks to direct, bend or influence the occupant's transit from one area of the building to another. Plummer's belief in light's transformative agency to move the perceiver from real

to imagined spaces of ‘realms beyond’ was vividly realized by Soane throughout this site.

Watkin explains that Soane believed ‘a building could evoke a range of sensations or emotions in the beholder, especially through the handling of light’ (Watkin *Sir John Soane* 184) and in this belief Soane exhibited his skill of capturing, manipulating and displaying light itself. In 1837 the *Penny Magazine* reported that ‘the beams of sun...playing through the coloured glass light up every object with gorgeous hues’ (“The House and Museum of Sir John Soane” 458). However, the degree to which the hues were gorgeous was weather dependent. As Soane himself remarked ‘these exquisite effects vary with the time and the atmosphere’ (Soane & Hofland 48) In fact, Soane’s daily sensitivity to and appreciation of daylight was such that he was reputedly reluctant to allow visitors access to his premises when the weather was overcast and the light was not strong enough to create sufficient areas of contrast within the interior spaces (qtd. in Watkin *Sir John Soane* 416).

In addition to the top-lit *tribuna*, Soane deployed variously sized and strategically located convex and flat mirrors placed along the surfaces of walls and ceilings augmenting and directing the daylight which penetrates the spaces through a range of apertures, vertical windows, skylights and lanterns. Soane further finessed the appearance of light through the interjection of numerous stained glass panels (see fig. 3.33) (Coley). These synthesized configurations of light, colour, surface, depth, reflection and refraction were the manifestation of the architect’s project to unify the practices of sculpture, painting and architecture into a form of perceptual poetry. Soane worked towards a wide sensory engagement,

perhaps even a sensory unity, which is directly at odds with elements of Crary's interpretation of early nineteenth-century visual discourses. Whilst I agree with Crary when he proposes that vision becomes a physiological rather than intellectual form of knowledge at this time, I do not agree that this shift is concomitant with a full-scale fragmentation and alienation of the senses. Through the manipulation of light and space Soane demonstrated that alternative states of perceptual experience were being produced alongside scientific discourses of optics which Crary focuses on.

The creation at Lincoln's Inn Field was not merely a visual experience, but worked towards a kinetic, haptic and unified rather than fragmented experience of space. In *The Senses of Touch: Haptics, Affects and Technologies* Paterson analyses the complex configuration of perceptual activities which occur in an architectural setting:

Walking through a building, for example, involves not simply a correlation between vision and touch but also combined somative senses, the modalities of *proprioception* (the body's position felt as muscular tension), *kinaesthesia* (the sense of movement of body and limbs) and the *vestibular sense* (a sense of balance derived from information of the inner ear). (4) Soane's environments of intensely illuminated contrasts exposed the sensorium to particularly high levels of stimulation. The project of sensory and aesthetic unity explicitly promoted in John Britton's *The Union of Architecture, Sculpture and Painting* (1827) praises Soane's aesthetic aspirations. Britton's titular inversion of the traditional disciplinary hierarchy was no doubt a conscious effort to raise the status of both architecture and sculpture which both struggled to achieve a cultural status equal to that of painting. The top-lit *tribuna* had moved beyond earlier

eighteenth-century top-lighting in spaces, such as Chiswick House where a light of symmetry and rationality dominated, and instead moved towards an experiential and emotive synthesis that was more in sympathy with late eighteenth-century Romantic theories of aesthetics.

Gottfried Herder's 1778 treatise, *Sculpture: Some observations on Shape and Form from Pygmalion's Creative Dream*, makes a plea for the recuperation of touch as an act capable of aesthetic appreciation because, for Herder, the privileging of vision over other senses was problematic. He believed that sight alone cannot perceive the three-dimensional formal qualities of volume, mass and depth; 'the eye that gathers impressions is no longer the eye that sees a depiction on a surface; it becomes a hand, the ray of light becomes a finger and the imagination becomes a form of immediate touching (qtd. by Gaiger 19). A process of translation or collaboration occurs between the senses and an aesthetic engagement with the world. Light and sight work in conjunction with space and touch. Written twelve years after Herder's *Sculpture*, Goethe is preoccupied with similar themes in *Roman Elegies* (1795),

Marble comes doubly alive for me then, as I ponder, comparing,
Seeing with vision that feels, feeling with fingers that see. (15)

Through a willingness to acknowledge the value of touch Goethe developed an almost synaesthetic mode of artistic appreciation. Soane's belief that 'poetic and psychological effects should play a role in the creation and appreciation of architecture' (Watkin *Sir John Soane* 185) had an affinity with both Herder's and Goethe's aesthetics of embodiment in which the physical experience of perception is understood as a valid path to worldly knowledge. Together the preoccupations of Soane, Herder and Goethe belonged to the broader movement of Romanticism.

Helene Furjan endorses this point when she argues that Soane was part of a wider move away from Enlightenment aesthetics:

During the course of the eighteenth century, the subordination of affect and effect, the association with decorum, fixed rules, idealised beauty, general truths and rationality that had dominated classicism since the renaissance tended to give way to a focus on the more subjective potential of art and architecture, and the importance (if not pre-eminence) of imagination and genius. ("Sir John Soane's Spectacular Theatre" 13)

Indeed, the new interest in 'affect and effect' was also a reaction against scientific discourses on optics such as Robert Smith's *Compleat System of Opticks* (1738) in which, as Lindberg and Cantor argue, 'Light was no longer mysterious. Instead it has become a species of matter and therefore inert, passive and devoid of spiritual qualities' (75). By contrast Soanean light, was far from passive and never inert.

Evidence of a sensual or physiological engagement with the environment of Lincoln's Inn is found in visitors' accounts. Tellingly the language used to describe impressions often relied upon metaphors invoking more recent physiological discoveries and inventions in the science of optics and/or forms of popular visual entertainment. And it is also in these texts that further overlaps in interpretation occurred between modes of poetic and more commercial or popular top-lighting. The key example being the object and visual effects of Sir David Brewster's kaleidoscope which quickly migrated from the rarefied field of scientific enquiry into the expanded world of consumer goods as a desirable toy. Five years after its invention a correspondent from the *Literary Gazette* described Soane's house and its contents as 'a sort of kaleidoscope of rich materials' ("Architectural Drawings"). The likening of Soane's architecture to both an instrument of scientific

investigation and an optical toy producing sensory pleasures hinged on their shared treatment of light. Like Soane's *tribuna*, light in the kaleidoscope passed through coloured glass and down a tunnel or corridor to create a richly illuminated performance of shifting patterns and colours. Responses such as these were inconsistent with the agenda of civic virtue and classical truths seen in patrician top-lighting and spoke of an enthusiasm and curiosity about the pleasures of perceptual knowledge. An example of how this type of aesthetic experience moved between elite and popular spaces will be discussed in the final chapter when I analyze the significance of the 1822 mirrored room, known as the 'heptaplasicoptron' at Vauxhall Pleasure Gardens. At Soane's house evidence of the distance between the rational, intellectual symbolism of Enlightenment top-lighting versus a top-lighting of sensation is confirmed by the art historian, Dr Gustav Friedrich Waagen when he recalled in 1838, that being in Lincoln's Inn was like a 'feverish dream' (181). His perceptual experience was such that it stimulated a bodily and mental confusion rather than rational state of consciousness.

However, the range of associations embedded within Soane's many buildings was not always critically well received; in fact, for some critics Soane pushed affect and effect too far. And it is here that the imbrications of lighting modes proved to be problematic producing rough edges of cultural anxiety. An article in the *Civil Engineer and Architect's Journal* of 1837 was of the opinion that at Lincoln's Inn 'not a few effects partake of far too much of the petty and the peep-show' (qtd. in Watkin *Sir John Soane* 57). It is revealing that another optical device from popular culture had been associated with this building. Unlike the

novelty of the kaleidoscope, the peep-show had long been a feature of popular culture and was frequently found in urban spaces such as the street, market place and fair (Balzer). Passers-by, attracted by an itinerant showman's sales pitch, would pay him in exchange for a peep at his show. Similar to the zograscope and *vues d'optiuques*, in its most basic form the peep show consisted of a box with a number of apertures; at least one hole through which one looked and another opposing hole through which light passed. A transparent piece of material made of paper, card or glass was drawn upon and placed between the holes. The darkened interior of the box, combined with the controlled back-lighting produced a heightened and unusually illuminated view of the image.

The connections between the peep-show entertainment and the formal techniques used at Lincoln's Inn are clear; contrasts of illumination, directed light sources, framed views, coloured transparent surfaces and manipulation of depth perception all stimulated strong sensory experiences in both instances. These correlations present compelling evidence indicating that Soane's architectural vocabulary participated in a language of perceptual culture that cut across hierarchical boundaries of aesthetic status. Soane's hybridity was problematic for the *Civil Engineer and Architect's Journal*. Petty rather than grand, popular rather than elite, were the value judgements passed by this article. Soane's aspirations for a building intended to secure his immortality as an architect of canonical importance was a definitive failure as far as this publication was concerned. But the implications of this criticism cut even deeper and move beyond personal attack. Reading between the lines it is possible to discern a hint of professional insecurity on the journal's part. The implication being that Soane's work

endangered the already vulnerable cultural status of architecture as a liberal art, and could potentially bring the profession into disrepute. Perhaps the writer had good grounds for this anxiety given that two years prior to this article, the *Satirist, and the Censor of the Time* had referred to the same building as ‘the gingerbread mansion’ with its collections reduced to ‘absurdities’ followed by accusations of the architect’s vanity (“Soane’s National Museum” 99). Fairy stories, confectionary, irrationality and narcissism are hardly the types of associations an architect of public institutions such as the Bank of England would seek to attract. This acute difference of opinion about aesthetic value revolved around a fundamental dispute concerning the status of perception in the production and evaluation of aesthetic taste. The friction between the interpretations of poetic and popular light exposes an ambiguity, even a suspicion of how the senses behaved when exposed to this environment. In the same way that the light upon drawing-room objects could move from desirable glitter into the dangerous perceptual territory of vulgar glare, so too could top-lighting produce inappropriate perceptual experiences and expressions.

The growing ambivalence and discomfort about the suitability of poetic or ecstatic lighting accompanying a moment of aesthetic or educational experience, particularly in public spaces, resulted in the decline of the poetic mode and the increased acceptance of a clear, bright and unmediated form of exhibition lighting. The six decade episode of light’s multivalency from the 1780s to the 1840s was over; ways of seeing and feeling about culture and one’s place within it had changed. The desire to standardize light was also a desire to standardize perception. Whilst poetic light flickered and faded into obscurity a new kind of light

was privileged that was formed of a marriage between the elite heritage of patrician top-lighting and a new bourgeois light of liberalism engaged in the pursuit of industry, technology and manufacturing (Otter). These imperatives of modernity were manifested first in the iconic glass and iron structures of Loudon for whom ‘the glass dome was a truly republican space’ (Armstrong *Victorian Glassworlds* 175), and then developed in Joseph Paxton’s Crystal Palace for the Great Exhibition of 1851. Mediated only by glass, daylight penetrated the building from all sides and directions. The abundant presence of zenithal *and* lateral light meant that there was no possibility for poetic contrasts; shade, gloom and filters of coloured light were banished. The subjective, emotive and affective treatment of light had been supplanted by a form of de-personalized illumination in the Crystal Palace in which, as the *Northern Star* put it, ‘All classes were united by one common sentiment and sympathy’ ('May-Day'). For Grosz ‘the history of architecture, as much as the history of culture, is the unpredictable opening out of forms, materials, practices, and arrangements’ (104) and the bourgeois, liberal light of the mid-nineteenth century is part of this historical ‘opening out’ process. However, there are also unspoken consequences in Grosz’s proposal, that of an associated *closing down* of forms, materials and practices. The movement of history cannot always be one of openings; there must also be acts of closing.

Chapter Four

Growing Light in Commercial Pleasure Gardens

From the early 1660s until 1859 a twelve acre area on the south bank of the River Thames near Vauxhall was used as a site for evening outdoor recreational activities. Easily accessible from the capital's centre but sufficiently distant from associations of the urban sprawl, Vauxhall or Spring Gardens offered a respite from the daily routines and pressures of city life. At the outset the site's reputation for the pleasures of informal social mingling was compromised by reports of prostitution and petty thievery. The grounds underwent a redevelopment when in 1728 the culturally and commercially ambitious entrepreneur, Jonathan Tyers acquired the lease. Tyers sought to improve the notoriety of the grounds through a number of aesthetic and commercial strategies. Claims for a legitimate status were achieved by emulating the layout of private aristocratic gardens. A series of straight, artificially illuminated, intersecting walks which contrasted with more overgrown areas were introduced throughout the gardens. Food, drink and polite entertainment in the form of music, sculpture and paintings were now offered and access to the venue was controlled by charging an entrance fee. Tyers' efforts at elevating the social standing of the venue were rewarded with royal patronage from Frederick, the Prince of Wales who regularly attended the gardens. Yet, in spite of Vauxhall's improved reputation, the possibility for scandalous behaviour was never entirely eliminated from the venue. No doubt for many the potential proximity of impropriety added a pleasurable frisson. Tyers' successful formula of polite (and some impolite) pleasures was due to the key ingredient of fashionable

novelty. Maintaining new and desirable attractions was essential if the crowds were to return season after season. According to the architect Charles W. Moore, in his *Poetics of Gardens*, 'Gardens exist in sunlight. Without it the plants would not grow, the water would not sparkle, and the shadows would not fall' (8). How then are we to understand the success of this night garden? The answer lies in the illuminated spectacles of numerous coloured or variegated lamps, transparent paintings, mirrors and fireworks which repeatedly drew people into the gardens as the opulent display glowed out against the dark, velvety backdrop of a London night sky. The combination of darkness and artificial light, as opposed to sunlight was the crucial factor in Vauxhall's successful existence.

If, as the historian of landscape architecture, John Dixon Hunt suggests, gardens 'display a concentration of effort and will' (*Greater Perfections* 63) what then was being intentionally directed and cultivated in this late eighteenth and early nineteenth-century type of garden? Flowers, plants, vegetables were certainly not the focus. I argue that in fact Vauxhall focused on something else altogether—the cultivation of a new non-linguistic mode of signification through which modern, urban subjectivities were formed. Experiences based on perceptions of pleasure and realized through practices of illumination were nurtured and grown in the grounds of Vauxhall. For Mara Miller in her monograph *The Garden as an Art*:

Every garden is an attempt at the reconciliation of the oppositions which constrain our existence; the act of creating a garden however limited it may be, is not only an assertion of control over our physical surroundings but a refusal of the terms under which life has been presented to us and an insistence on determining the terms of our existence (25).

Hunt's 'effort and will' combined with Miller's 'insistence on determining the terms of our existence' are a step towards theorising how acts of perception might enable a dynamic of individual agency to co-exist within the structured environment which created the widespread popularity of the commercial pleasure garden.

The chapter is organised into five sections investigating the popularity, theatricality, aesthetics, developments in design, promotional techniques, and partnership between light and darkness at Vauxhall. The first section uses the human geographer, Yi-Fu Tuan's concept of topophilia, the 'affective bond between people and place or setting' (4) to make sense of pleasure gardens' appeal. A brief description of the first London Vauxhall is followed by an assessment of how previous scholarship has interpreted the subject of commercial pleasure gardens and Vauxhall in particular. From surveying the field it becomes clear that the importance of illuminatory practices in pleasure gardens has been almost completely overlooked.

The link between pleasure gardens and other forms of illuminated entertainment is best shown through its shared practices with pantomime. Both entertainments relied upon an opportunistic ability to connect and incorporate new fashions permeating through society. Formulaic repetition, improvisation, masquerade, transgressive acts, themes of fairies and paradise were common to both and were united by spectacular displays of light coupled with the careful handling of both natural and artificial darkness. The theatricality of the urban pleasure garden was evidence of a cultural will to act out new ways of

understanding oneself and interacting with others and the environment; testing, exploring and exploiting the unfolding circumstances of modernity.

Section three, ‘Aesthetics of Light’, makes the first detailed formal and technical assessment of the different styles and devices of illumination which were used throughout the gardens. Towards the end of the eighteenth century and into the early nineteenth century the use of transparent paintings, numerous coloured lamps and fireworks intensified, producing complicated and unprecedented manipulations of artificial light in a diverse range of sculptural, architectural, figurative and performative displays. Standard tropes of natural illumination such as stars, sun and moon were frequently offset against the latest technological developments in artificial illumination producing a competitive dynamic gesturing towards larger cultural concerns about the changing balance between society and nature. The increasingly sophisticated treatment of light at Vauxhall was not unique, but belonged to a wider engagement with decorative urban illumination that approached light as a new, perceptually pleasurable commodity. The new aesthetics of light at Vauxhall was ephemeral and intangible, but their market value was not. The financial outlay needed to satisfy visitors’ appetite for an ever-increasing quantity of lights was a significant expense for Vauxhall’s managers and demonstrates the tangible commercial commitment they were prepared to risk in the hope of a healthy return on their investment. As a result an economy of illuminated pleasure emerged in which the gardens’ advertisements and promotional puff writing came to resemble an account ledger by the 1830s. At a quick glance potential visitors could scan what amounted to a list or menu detailing the types and quantities of light entertainments on offer during the current season.

Light had become highly commodified; evaluating, calculating and categorising the worth of light became common cultural skills in the early decades of the nineteenth century.

Changes to the interior design of two buildings at the heart of the gardens, the Rotunda and Picture Room, discloses shifts in taste between the original eighteenth-century layout and the re-launched design of the rooms in 1822. As section four demonstrates, mirrors functioned as a key aesthetic device throughout both phases of the rooms' appearance, but in the second decade of the nineteenth century the novel and challengingly named attraction of the Heptaplasiesoptron signalled a new dynamic of perceptual interaction enjoyed by visitors to the venue. A seven-sided mirrored wall, revolving mirrored pillars, chandeliers, and fountains usurped the once popular painted canvases by Francis Hayman. The pleasure of feeling and watching oneself and others moving through a room of reflected images and light began to take precedence over more static and older forms of public entertainment. Whilst innovative, these designs were not unique to Vauxhall. Fascination with highly illuminated and reflective environments resulted in an outbreak of mirrored rooms springing up across the capital in the 1820s. The Coburg Theatre mirrored curtain, the Argyll Assembly Rooms and the Regent's Park Colosseum were amongst many venues of social entertainment which catered for these scintillating fashions.

The essential perceptual counterpart to Vauxhall's illuminations was its darkness. The final section argues that the gardens were as much about concealing through darkness as well as revealing through light; this balance required careful management. The absence of light in the gardens was not just

provided by the natural night sky, but was also actively and artificially produced in various purpose-built theatrical structures such as the grotto, hermitage and submarine caves. Out of the three major avenues in the grounds, one was dedicated to darkness in both name and appearance. In the Dark Walk long distance vision was curbed by lack of light and instead a sense of touch and proximity prevailed which enabled different activities to take place. Intimate, private encounters were possible as were acts of sexual or criminal transgression. Moral and legal resistance to the walk's darkness peaked in 1826 when Surrey magistrates banned darkness in this area thereby demonstrating that sensitivity to light and darkness had reached a perceptual peak or crisis point. The crisis took another direction when the tenuous balance between light and dark was further disrupted and destabilized in the 1830s. Daytime opening in this decade exposed the attractions to sunlight, draining the spectacles of magic, rendering them tawdry, disenchanted and ultimately commercially unsuccessful. The fascination and attraction for new forms of light was a complex development that fluctuated between a dynamic of collaboration and competition with darkness.

The Topophilia of Vauxhall and Vauxhalls

In *Topophilia: A Study of Environmental Perception, Attitudes, and Values* Tuan writes that topophilia, defined as love of place, should be understood as the 'affective bond between people and place or setting' and goes on to explain that it is 'diffuse as concept, vivid and concrete as personal experience' (4). In this section, the topophilia or popular appeal of pleasure gardens such as Vauxhall is described, mapped and assessed. What becomes clear is that the cultural desire

for pleasure and social entertainment was repeatedly satisfied by a particular variation on the notion of *rus in urbe* in which gardens of light were set into and against the backdrop of new expanding cityscapes.

The brightest of these venues was Vauxhall, established by Tyers' approximately fifty years prior to the point at which this chapter begins in the 1790s. By the last decades of the eighteenth century the division of Vauxhall into two distinct garden areas was well established. The top end was open ground divided by a series of intersecting walks framed by trees and low lying shrubbery (see fig. 4.1). Three main paths were individually themed as the Grand Walk, the Triumphal Walk, (also referred to as the Italian Walk), and the Dark Walk, (also referred to as the Lovers' Walk or Druids Walk). Backlit large transparent paintings, obelisks or statues attracted the visitors' attention and marked the end of each path. Along the length of the avenues the evening darkness was punctuated by numerous differently coloured, or variegated oil lamps hanging in the trees. The pleasure of this area was to be found in spontaneous social interaction.

The unscripted appeal of visitors' self-generating entertainment along the walks was contrasted by the second main space of the venue which housed functional structures and organized timetabled performances. Located in the central area of the garden the so-called 'Grove' operated as the main performance space and featured an open air building for the orchestra and surrounding dance ground. Occupying the prime site from which to view and be viewed was the Prince of Wales' Pavilion, the presence of which sealed Vauxhall's reputation with royal approval. The interior of the pavilion contained four large paintings by Francis

Hayman executed in c.1745 depicting scenes from Shakespearian history plays.

Radiating out from the hub where cultural aesthetics and authority mixed with the motion of music of dance were further buildings designed in a range of Chinese, Gothic, Italianate architectural styles. These erections included supper boxes--- partially open structures decorated with more paintings by Hayman and his peers-- -where parties of ten or so visitors were waited on with food and drink whilst observing other visitors engaged in dancing. Beyond the supper boxes lay the Rotunda. As the name suggests this was a circular room decorated in Rococo manner with sixteen mirrors, extensive gilding, busts of eminent figures and a chandelier under which the orchestra could play if the weather proved to be inclement (see fig. 4.2). Attached to the eastern end of the Rotunda was the Saloon, also known as the Picture Room around which people could circulate whilst looking at more paintings by Hayman.

Pleasure gardens have been studied from a number of angles: histories of the garden, theatre, art, the city and popular culture. The emphasis of previous research, and also this chapter, upon Vauxhall is determined by its status as the largest, longest running and most influential garden of its kind. Whilst the bulk of the research into Vauxhall has focused on the gardens' rise to fame in the eighteenth century, a smaller amount of work has also considered its mid-nineteenth century demise. Warwick Wroth's historical survey of London's pleasure gardens covers all of the eighteenth century and provides the first and only extensive catalogue of the many sites across the capital. James Granville Southworth, Edwin Beresford Chancellor and W.S. Scott's social histories of Vauxhall rely heavily upon the work of Wroth adding sources and commentaries

on the layout, functions and alterations of the various spaces, art and buildings of Vauxhall only. The exhibition catalogue by T. J. Edelstein from 1983 brings together a further range of primary material related to Vauxhall, but does not extend to a consideration of the gardens in the nineteenth century. None of these studies attempt to situate Vauxhall within a wider cultural context, nor do they recognise the importance of illumination as a mode of entertainment.

The period which falls between 1780 and 1840 has received only cursory attention because it encompasses neither the drama of its birth or decline towards death. Nevertheless, these sixty years span a time of intense cultural transition both within and beyond the perimeters of Vauxhall Pleasure Gardens. Vauxhall features as a case study within my thesis because it offers a striking and suggestive example of how perception was formed through practices of illumination situated within a society where new values of pleasure were being both monetarily and culturally negotiated. In spite of the fact that, until this point no research has focused on Vauxhall's illumination, during its lifetime the topic of light, and darkness was a continual subject of discussion. The quantity and quality of historically contemporary commentary generated by Vauxhall's lighting arrangements demonstrates that light mattered. Therefore, this chapter reveals for the first time that light at Vauxhall was an essential and to date unacknowledged component in the history of the gardens' success, and the general commodification of pleasure. Moreover, the importance of light at Vauxhall was not an isolated incident and my work, more than any other study, acknowledges the existence and significance of numerous other pleasure gardens. For the future more work is required on the regional variations of pleasure gardens. In the

meantime, I demonstrate how the influence and popularity of Vauxhall fanned out across the capital, into the provinces and beyond the shores of Britain, reaching the continent and North America. As Miodrag Mitrašinović has pointed out, Vauxhall's influence spread across time as well as space and can be read as a prophetic sign for the advent of twentieth-century theme parks such as Disney and cities dedicated to entertainment such as Blackpool and Las Vegas.

Vauxhall's connections to theatre have been addressed by the historian of landscape architecture, Dixon Hunt, who traces how the eighteenth and nineteenth-century pleasure gardens of Vauxhall and Ranelagh belonged to a long heritage of garden spectacles originating in courtly entertainments of the Medici and Elizabethan royal households (*Vauxhall and London's Garden Theatres* 19). Two elements, architecture and lighting, linked theatres with gardens where arrangements of platforms, amphitheatres and stages were complemented by backlit transparent scenery, revealing pools of directed light and concealing indeterminate areas of darkness. Dixon Hunt draws attention to the commonality of architectural structures in both theatres and gardens, but does not acknowledge the transformative role played by lighting effects. Without appropriate lighting the imaginative potential of the structure is lost. Dixon Hunt also discusses the double nature of theatricality in pleasure gardens, 'Vauxhall certainly provided stages for professional entertainers; but they also offered 'scenes' – for anyone who wished to act out in a masquerade (or without costume) other roles than daily life habitually permitted' (13). The activity of performance rather than just spectatorial passivity set pleasure gardens apart from purpose built theatres. In the course of

this chapter the perceptual implications of this difference will be pursued and developed.

More recent work by Solkin, Miles Ogborn and De Bolla has interrogated Vauxhall's role in the eighteenth-century formation of a new bourgeois public sphere where tensions between culture, commerce, class and gender were played out. For Solkin, Vauxhall was significant because of its contribution to the history of British visual culture. Vauxhall housed the first public exhibition of paintings, the viewing of which had up until this point been restricted to elite or religious locations. Now, in the middle of the eighteenth century, 'Vauxhall added a dignified appreciation of high art to the range of polite amusement on offer to every member of its clientele' (150). Solkin builds on Habermas' concept of the public sphere and argues that the gardens' promotion of polite aesthetics marked a shift from a private to public consumption of art in which painting was transformed into a new 'autonomous cultural commodity' (150).

Gregory Nosan convincingly argues that Vauxhall was engaged in 'commercializing aristocratic techniques for the visual representation of power' (102), but his analysis is restricted to the period between the 1730s and '50s. The imbrications of aesthetics and social rank analyzed by Solkin is extended by Ogborn to include issues of gendered visuality, which he interprets as a late eighteenth-century example of a new culture of commodity consumption. He explains:

As part of a modern culture of consumption, Vauxhall Gardens was built on an excitement over novelty and surprise that gave it a place among those dream worlds of capitalist consumption where identities are created and

transformed through an open-ended process of desire and experimentation.
(119)

The attitude of excitement and experimentation is an important point which I develop because I believe that it is precisely this energy which propelled Vauxhall into the nineteenth century and resulted in a proliferation of perceptual entertainments through which embodied experiences of modernity were processed and interpreted.

Working out of the same period as Ogborn and Solkin, the cultural and literary historian de Bolla identifies the emergence of a new viewing subject at Vauxhall engaged in acts of looking which he refers to as 'auto-voyeurism' (79). His project aims towards a 'historical recovery of the look' (76) by placing an emphasis on embodied sight. He proposes:

a pose, a gesture, an attitude, or posture – somatic embodiments of the viewing position – may independently or in conjunction contribute toward the construction of particular kinds of sociopolitical subjects and constitute a specific address to an insertion within the culture of visuality. (72)

De Bolla distinguishes between different kinds of gendered scopic activity, the glance and the gaze which occurred at Vauxhall. The former associated with masculine visuality and the latter with a feminine mode of visuality (Bryson). In addition to these two modes, de Bolla offers a third mode which he calls 'catoptric' and describes it in the following way, 'an oscillation or pulsation between the gaze and the glance, sensorium and retinal surface, as the eye shuttles back and forth between penetration and reflection, depth and surface' (74). Such a descriptively nuanced approach to seeing is both appropriate and necessary; but attention to visuality must be situated within the entire sensorium if the changing environmental aesthetics of Vauxhall are to be fully appreciated and understood.

The combined visibility and sociability of Vauxhall belonged to a growth of cultural spaces that de Bolla believes should be interpreted as 'experimental laboratories for the investigation of visuality' (75). This point can be pushed further; spaces such as Vauxhall were investigating not just visuality, but perceptuality. In order to understand the historical construction of looking we must locate that sense within a broader historical understanding of perceptual formation. De Bolla restricts his analysis to a limited range of visual acts focusing on the triangulations of sight between opaque paintings, a brief mention of the gardens' Rotunda mirrors, and gendered subjects. Whilst encounters with these representations and materials were experientially rich, there were competing and equally significant attractions at Vauxhall, and many other pleasure gardens, which have so far been overlooked. The numerous transparent paintings, garlands of lights and careful management of darkness were all integral to the perceptual identity of Vauxhall in the eighteenth century. The emphasis on the artifice of illumination continued to develop into the early nineteenth century but mutated into bigger, more numerous and more complex displays which were accompanied by conflicts about appropriate lighting levels.

Jonathan Conlin's recent article tackles the under-researched nineteenth-century history of Vauxhall Pleasure Gardens. He calls upon de Bolla's term 'autovoyeurism' and argues that this mode of looking began to recede upon the introduction of fireworks in 1798, and had fully died out by the second and third decades of the nineteenth century when:

Instead of leaving the visitors to perform for themselves to the accompaniment of music, the management increasingly provided them with other things to look at—performances by paid professionals. The more the

management diversified the entertainments on offer, the more trees and open walks had to be swept away in order to build the requisite theatres and show grounds. (740)

Therefore, according to Conlin spectacles of modernity drained Vauxhall of its former capacity to stimulate visitors' visual experience. There is no doubt that the entertainments of Vauxhall changed, but to suggest that this meant nineteenth-century visitors were no longer drawn to look at each other or themselves does not necessarily follow. We will see, for example, how the peak of Vauxhall's visitor numbers in the 1820s coincided with the opening of a new entertainment called the Heptaplasiesoptron.

Vauxhall's eventual failure can in part be attributed to the competition of the new Cremorne Gardens which opened for business at Chelsea in 1846. As Vauxhall dwindled and died in the 1850s, Cremorne Gardens confidently emerged as Vauxhall's successor. In Lynn Nead's *Victorian Babylon*, Cremorne is read as an example of the new 'speculative and entrepreneurial management of metropolitan leisure and entertainment' which was occurring across the capital in the 1860s (109). Nead emphasizes how the changing, growing metropolitan environment encroached upon Vauxhall's borders, negatively impacting on the gardens' popularity, whereas Cremorne's location was still sufficiently peripheral to the urban sprawl. Vauxhall could no longer claim a suburban identity and the illusion of a rural, idyllic retreat became increasingly hard to maintain. In many ways the entertainments at Cremorne were very similar to those once offered at Vauxhall; illuminations, a garden idyll, music, theatrical performances, victuals. Yet there were also important distinctions between the two venues, as Nead states that 'The attractions of daylight Cremorne were seen to far exceed those of

Vauxhall Gardens by day' (117). The relationship between day and night in early nineteenth-century pleasure gardens is a subject to which I will return. But for the moment I want to think more about Nead's analysis of the 'Crystal Platform', an orchestra and dance area where 'the ornate, glowing forms of the cut-glass enclosed the dancers in a perimeter of luxury and beauty, so that to cross the sparkling threshold on to the platform was to move into a *bourgeois utopia of the senses*' (121 emphasis added). Given that Solkin, Conlin and Nead have already extensively addressed issues of class, and Ogborn and de Bolla have investigated topics of gender at Vauxhall, this chapter will not rehearse any further these particular well-researched areas. The chapter will instead focus on how the early nineteenth-century pleasure gardens functioned as test beds for the successful partnership between technological, cultural and commercial practices of illumination which produced, by the middle of the century, an idealized and socially accessible space of perceptual indulgence at venues such as Cremorne.

The emergence of a specific 'bourgeois utopia of the senses' that Nead associates with Cremorne was only possible because of the numerous commercial gardens which preceded Cremorne. Whilst Vauxhall was probably the most internationally famous and longest running pleasure garden, there were many other highly successful and popular gardens operating across London, throughout the British Isles and beyond. As the nation's capital, London held the highest density of pleasure gardens. The most significant rival to Vauxhall was Ranelagh. Located in Chelsea on the north side of the river Thames, the gardens opened in 1742 and closed in 1803. Attracting a similarly elite and aspirational clientele to Vauxhall, Ranelagh offered a wide range of musical entertainments which could be

enjoyed under the roof of the garden's rotunda, measuring an impressive thirty seven metres in diameter. Marylebone Gardens, Cuper's Garden and numerous other smaller pleasure gardens, tea gardens and spas could be found across London and outlying areas. Many establishments were attached to public houses such as the Red Cow Tavern in Dalston, north east London (*Wroth Cremorne and Later London Gardens* 96). Light was a standard and essential ingredient in all these pleasure gardens.

Unlike Vauxhall, provincial pleasure gardens have not been studied in any depth, but do receive cursory attention in more general local history studies. One of the best regional examples of pleasure gardens' popularity can be seen in Bath's Sydney-Vauxhall Gardens designed by Charles Harcourt Masters and opened in 1795 (Snaddon). The name itself explicitly announces an intentional desire for favourable comparison with London's Vauxhall. Pierce Egan acknowledges the analogy in his 1819 *Walks in Bath*, 'Upon gala-nights, the music, singing, cascades, transparencies, fire-works, and superb illuminations, render these gardens very similar to Vauxhall' (182). Pick and Hey Anderton detail how Leicester, 'with a population of fewer than 17,000 in 1800,' offered a variety of cultural establishments including 'the popular summer concert seasons at the Vauxhall Pleasure Gardens in Bath Lane' (81). The Vauxhall Pleasure Gardens of Nottingham, Birmingham, Manchester, and Norwich, amongst many other similar venues would have all featured a wide range of night time illuminated spectacles. In the Collyhurst district of Manchester an eighteenth-century tea garden formerly known as Tinker's Garden's was renamed in 1814 as Vauxhall Gardens (Swindells 150). Norwich proudly boasted four different pleasure gardens (including a

Ranelagh) which all successfully operated up until the mid-nineteenth century (Girouard *The English Town* 269; Rawcliffe et al 205). But Rawcliffe's et al conclusion that the inhabitants 'naming of their gardens suggests a degree of provincial insecurity' (207) is, I believe, misplaced.

The commercially optimistic and opportunistic tactic of re-appropriating the word 'Vauxhall' for other similar enterprises was not simply a lazy act of blatant plagiarism, but was instead an imaginative process, creating a chain of topophilic associations and expectations loosely linking all pleasure gardens and pleasure garden visitors. Disclosed in the recycling of the Vauxhall epithet is a desire to identify a language capable of expressing new, modern perceptual experiences. The meaning of Vauxhall came to exceed the geographically specific site on the south side of the river Thames. 'Vauxhall' operated as an internationally recognised synecdoche for urban pleasures focused on fashions and fascinations of illumination.

The strength and contemporary relevance of the perceptual experiences bound up in the word 'Vauxhall' is given further weight through the international spread of the entertainment. Across the channel French pleasure gardens were often referred to as 'les Wauxhalls'; there were ten in Paris alone between the 1760s and the 1790s and many others opening around the country (Conlin *Vauxhall on the Boulevard* 25). Other European countries were similarly enthusiastic, such as the Vauxhall Gardens in Berlin (Moritz 34) and Copenhagen. The Danish capital's Tivoli-Vauxhall gardens, founded by Lt. Georg Carstensen in 1843, are still in existence today. Further east, Russia also embraced all that the word Vauxhall invoked; a Vauxhall Pleasure Gardens was established in Moscow

in the late 1770s (Tarr 21) and also in St Petersburg. Not to be outdone, iterations of Vauxhalls sprang up across large urban centres in the north east of America. The New York Vauxhall Gardens were opened in 1767 and closed, as if in sympathy with the London Vauxhall, in the same year of 1859 (Caldwell 84; Williams & Disturnell 191). Two other Vauxhalls also operated in the New York metropolitan area during the later eighteenth century and towns further-a-field such as Philadelphia maintained their own versions of the London gardens.

Pantomime and Pleasure Gardens

In this section I argue that a sophisticated manipulation of light and darkness was essential to acts of play, pleasure, transgression and improvisation that were common to not one, but two highly popular entertainment formats of the late eighteenth and early nineteenth centuries. The dominant feature of lighting design at Vauxhall in London, and the many other national and international Vauxhalls, was theatrical in both the function and form in which it referenced traditions of pantomime. Equally, many aspects of pantomime called upon features specific to the environment of pleasure gardens. Therefore, I map and discuss the corresponding and collaborative lighting techniques which were shared by the two entertainment formats of pleasure garden and pantomime.

In John O'Brien's study of British pantomime he succinctly describes the genre as a fusion of 'continental commedia dell'arte characters, classical mythology, dance, opera, acrobatics and farce' (xiii). The popular, bawdy, fairground activities of pantomime were structured around a mix of formulaic

characters and set pieces, contrasted with a high degree of improvised and unpredictable behaviour. Binding the closed and open aspects of pantomime was a strong emphasis on sensual gratification. It is no coincidence that the early eighteenth-century success of pantomime on London's stages occurred simultaneously with Tyers' re-opening of Vauxhall. From theatres and pleasure gardens, dynamics of the pleasurable, the playful and the popular spanned out across the cultural landscape of the metropolis. This demonstrates that, like light, these experiences were not restricted or contained by a singular or discrete cultural form. Instead a picture emerges of a widespread, constantly adapting, cross-generic engagement between entertainments; illumination acted as a pivotal agent in the momentum of these attractions.

Out of this close dialogue between pleasure gardens and pantomimes came a re-purposing and re-presentation of a whole range of aesthetics and thematics from contemporary and historical sources. For pantomime the location of the pleasure garden afforded spectacular scenic opportunities which also supported and justified the more extraordinary behaviour of certain characters.

The Harlot's Progress; or, The Ridotto Al' Fresco: A Grotesque Pantomime Entertainment by Theophilus Cibber was produced a year after Jonathan Tyers opened his management of Vauxhall in 1733. It was a reworking of William Hogarth's popular print series *The Harlot's Progress* and diverts from the original plot with Moll Hackabout being taken to a masquerade or Ridotto al fresco at Vauxhall by Harlequin et al just as she is about to start her penal work (Ogborn 132). In so doing Hogarth's moral closure of punishment is subverted and supplanted by pleasure at the gardens. Over sixty years later Vauxhall continued

to hold dramatic potential and was chosen as a location in the *Oracle of Delphi* staged in 1799 at Sadlers Wells (Hunt 28). Into the nineteenth century a production at Covent Garden of *Harlequin and Mother Goose; or the Golden Egg* in 1806 also used the location of a London pleasure garden. The performance climaxed with a final scene of a submarine palace; an attraction that was also present at Vauxhall in the slightly altered form of a submarine cave. Further examples can be seen in a diorama for the 1823 production *Harlequin and Poor Robin* executed by the Grieve family of scene painters in which the protagonists were depicted as contemporary balloonists who started their aerial excursion from Vauxhall Gardens. By 1823 many balloons had left from this location and were a regular part of an evening's entertainment at the gardens. An actual event was appropriated by pantomime and moulded to suit the comic theatricality of the genre (Mayer 132).

That a well established and ongoing desire to incorporate representations and associations of pleasure gardens into the pantomimic genre existed is clear. It was also the case though that pleasure gardens, such as Vauxhall, were equally keen to draw certain pantomimic devices back into the garden terrain. Fig. 4.3 represents a masquerade, or masked costume ball taking place at Vauxhall c.1790 in which the character of Harlequin can be seen on the far left of the scene indicating visitors' casual participation in pantomimic performances. Masquerades frequently featured characters from pantomimes and were popular in the gardens throughout the eighteenth and into the nineteenth century; they disrupted distinctions between stage and auditorium allowing pantomime to move beyond self-contained performances and out into the garden at large. In addition, actual

staging of pantomimes within the gardens took place in the early nineteenth century; *Harlequin in the Bottle* was performed in 1828 and the following year visitors could watch *The Yellow Dwarf of Harlequin Knight of the Lion* (GCP 68). Any pantomimic representations of sexualised behaviour such as heightened or inverted displays of gendered identities or acts of non-conformative sexual liaison therefore became available for visitors to actively participate in, rather than merely passively watch.

The connections between pleasure gardens and the theatricality of pantomimes were not restricted to London's Vauxhall. In James Thompson's history of Leicester the author recounts an unusual incident when in the winter of 1785 the city's river:

was so thoroughly set with ice that a masquerade was held upon it, near the Vauxhall Gardens...when Harlequin, Columbine, Pantaloona, and Clown, were represented, and thousands of spectators assembled upon the banks and West Bridge to witness the performances. (207)

In Russia a physical as well as thematic proximity between the two entertainments was forged when the Moscow theatre manager, Michael Maddox, expanded his business in the 1770s with the addition of pleasure gardens directly attached to the main theatre building (Tarr 21). And at Tivoli-Vauxhall in Copenhagen, 'each evening a silent *commedia dell'arte* was enacted in the outdoor pantomime theatre' (282 Hardison Londre and Berthold). An article in the 1847 volume of the *Metropolitan* describes the venue thus:

The Tivoli, then, at Copenhagen is a large public garden, about a mile from the town, and sacred to pleasure. No device for amusing the thinking and high-minded public exists that is not there; rude dramatic performances,

dissolving views, roundabouts, peep-shows, fireworks, illuminations, music of real worth, sweet cakes of all kinds, and grog of all sorts. (Ritchie 227) Philadelphia's Vauxhall Garden, was described in 1828 in, by now, very similar terms to all aforementioned pleasure gardens:

In the centre of the garden, is a building for occasional concerts and vocal and instrumental music, in summer-time. The retired parts of the garden contain several alcoves, and the whole is illuminated on gala nights, when fireworks etc. are exhibited. (Adams 12)

From the Midlands to Moscow and America, the twin themes of pantomimic spectacle and illumination were to be found and enjoyed in the urban cultural space of the pleasure garden.

The transportation of pantomime from stage to garden meant that in many ways Vauxhall, and all its iterations can be understood as providing an extensive and publicly accessible pantomime set. In addition to the blurring of boundaries between stage and auditorium, there was also an accompanying fluidity between acts of performance and spectatorship. For such activities to be successful visitors were required to enact an unscripted performance of their own choosing, often encouraged through the vehicle of the masquerade. Vauxhall condoned, even actively fostered improvised behaviour. As with pantomime, some of the improvised behaviour which took place within the gardens was considered transgressive. In particular, sexual acts whether paid for, mutually consensual, or taken through violence, were considered to be prevalent at Vauxhall. Certain areas of the gardens were associated with sexual activity more than other areas. It is no surprise to find that illumination, or to be more precise, lack of illumination played an important part in sexual encounters. As with the gendered feminisation of certain lighting qualities and quantities discussed in chapters 1 and 2, pleasure

garden illumination was also implicated in the gendered behaviour of visitors. The Rural Downs and the Dark Walk both received significantly less artificial light than other areas of the venue. The intense presence of darkness in these areas was intentional, arranged and formed a spectacular counterpoint to the gardens' brightly illuminated areas. The issue of transgression and darkness will be explored in greater detail at a later point in this chapter, but for the moment a further related connection with pantomimic devices needs to be highlighted.

Spectacular switching between contrasting episodes of darkness and light was a strategy common to both pantomime and pleasure gardens. A standard component within many pantomimes is the penultimate act known as the 'dark scene', so-called because it invariably occurs in a gloomy or macabre setting, a cave, a ruined tower, a submarine grotto or desolate heath (Mayer 30). It functions as a visual contrast to the extravagant lighting of the finale and was influenced by the late eighteenth-century appetite for the dark and gloomy aesthetics of gothic drama (Mayer 90; Gamer 74). Since the 1770s, under the painter and sceneographer de Loutherbourg's influence, lighting played a crucial role in theatrical performances, such as pantomimic dark scenes, where strong transitions between light and dark, and effects of opacity and transparency were used to heighten dramatic impact.

At Vauxhall the switch from darkness to light was not just restricted to designated dark zones such as the Dark Walk, but also encompassed the entire garden at one specific and highly orchestrated moment in the course of every evening's entertainment when a mass spectacle of synchronized artificial illumination transformed the gardens. Unlike the southern hemisphere where the

change from day to night is a relatively swift transition, the long evenings of British summertime mean that change from day to night is a gradual process of subtly encroaching dusk which imperceptibly changes into darkness. Therefore, the slow perceptual adjustment to the gardens' atmosphere of increasing obscurity was radically disrupted by the unexpected enlightenment which resulted in an effect of fantastical enchantment. An example of the sensitivity to the changing seasons and the affect this had on lighting conditions was expressed in an article in *The Times* of 1826:

Whether it was owing to the advancement of the season, which, by diminishing the natural light of the evening, gives increased brilliancy of effect to the artificial illuminations, or whether it was the consequence of the numerous additional lamps used in the decorations appropriate to the present occasion , (amongst which was the motto, "long live our gracious patron"), or to both these causes combined, it is difficult to tell; but certainly the gardens last night surpassed, in splendour of appearance, any thing which they exhibited since the opening of the season. ("Vauxhall" 2)

Vauxhall capitalized on the natural features of British diurnal rhythms and exploited the period of gloaming by dramatizing the arrival of night through this synchronized lighting spectacle thereby achieving maximum visual impact. This aesthetic technique of transitioning from natural darkness to a mass illumination of lamps was common to both the theatre and the pleasure garden. Pantomimic narrative structure regularly pivots around a transformation scene in which the main protagonist assumes a magical identity or power expressed through spectacular sceneographic effects. In the gardens' swift and miraculous transition from dusk to dazzle, it was as if Vauxhall had become the lead character in its own episode of magical rebirth. Vauxhall's echoing of pantomime's dramatic structure was

maintained right up until the end of each evening's entertainment when a spectacular finale of fireworks concluded the nightly show. The subject of fireworks deserves sustained attention in its own right, but unfortunately the scope of this chapter cannot accommodate a dedicated study.²⁴

To return to the arrangement of the mass illumination, it must be stressed that the choreography of the display was no easy feat and involved careful deployment of staff in much the same way that stage hands were essential in theatres. The lamp-lighters at Vauxhall were required to skilfully operate and maintain equipment in order to accurately coordinate carefully timed spectacles. Records do not reveal exactly when the practice was initiated, all we can be sure of is that it started at some point in the eighteenth century and continued on into the nineteenth century. An early account of the spectacle in 1742 demonstrates how the effect captured the imaginations of those who witnessed it, '...all in a moment, as if by magic, every object was made visible, I should rather say illustrious, by a thousand lights finely disposed, which were kindled at one and the same signal' (qtd. in Edelstein 13).

In a section of Benjamin Franklin's autobiography from 1757, he provides us with some insight into how such a spectacle might have been achieved:

I have sometimes wonder'd that the Londoners did not, from the effect holes in the bottom of the globe lamps us'd at Vauxhall have in keeping them clean, learn to have such holes in their street lamps. But, these holes being made for another purpose, viz., *to communicate flame more suddenly to the wick by a little flax hanging down thro' them*, the other use, of letting in air, seems not to have been thought of; and therefore, after the lamps have

²⁴ For further information on fireworks see Kevin Salatino.

been lit a few hours, the streets of London are very poorly illuminated (emphasis added. qtd in Southworth 67).

In addition to the technical explanation provided here, Franklin's remarks also underline how Vauxhall's lighting was far from mere utilitarian street lighting. Investment in sophisticated procedures and appliances is evidence of the proprietor's methodical strategy to match business practicalities with perceptual pleasure.

Fifty years later the mass illumination was still part of Vauxhall's attractions, 'The grove is illuminated in the evening with about fifteen hundred glass lamps; in the front of the orchestra they are contrived to form three triumphal arches, and are lighted as it were in a moment to the no small surprise of the spectator' (GFC. C27. c.1790s). And from an undated early nineteenth-century newspaper clipping we can see that the sudden transformation from dark to light was still very much part of Vauxhall's illuminated entertainment; 'The great object of admiration was the fifteen hundred glass lamps, which were lit up suddenly on the approach of darkness, and gave a brilliant appearance to the alleys and avenues of trees' (GCVP. 2).

Alongside the numerous lamps, transparent paintings were also illuminated at the point of sudden transformation. These large backlit landscape paintings located at the ends of the walks glowed out into the night creating illusionary vistas which penetrated deep beyond the actual limits of the walks. Artists such as Clarkson Stanfield produced gallery paintings, and sceneographic work for both theatres and pleasure gardens, thereby highlighting the commercial and aesthetic interaction between spheres of elite and popular cultures. An unidentified advertisement for Vauxhall from 1826 hoped to entice visitors to the grounds and

invoke the magic of the theatre by promoting Clarkson's latest artistic endeavours for the gardens, 'The beautiful moonlight scene of the ruins of an Italian Abbey, produced by the celebrated Mr Stanfield, of the Theatre Royal Drury Lane.' (VGA 6).

Complementing a shared visuality, pleasure gardens and theatres also supported strong musical connections. James Robinson Planche supplemented his work as a writer and producer for the theatre with the role of Vauxhall's musical director between 1826 and 1827. Many other professionals employed by pleasure gardens were also frequently to be found working in other venues. The connection between the London Vauxhall and regional Vauxhalls is demonstrated by the fireworks manager, Signor de Montfort, who worked at both the London and Bath Vauxhall Gardens in the early 1820s ("Fireworks" 1822).

In addition to the aesthetic and performative links, the environmental characteristics of the garden provided a spatial continuity for both forms of entertainment. Pantomime and pleasure gardens both represented nature in possession of magical agency. The landscapes were never wild or harsh, but fertile and semi-cultivated or tamed through human intervention. The pantomime and pleasure garden tapped into a long lineage of similar spaces with antecedents in Greek, Judeo-Christian and Muslim traditions which envision concepts of earthly paradise as mythic gardens such as Arcadia, Elysian Fields, and Eden. On visiting Vauxhall in the first decade of the nineteenth century the American scientist, Benjamin Silliman remarked in his journal upon the magical qualities of Vauxhall, '...as we entered, a scene presented itself splendid beyond description, exceeding all that poets have told of fairy lands and Elysian fields' (273). Silliman was not

alone in his interpretation of the gardens, for many visitors the managers succeeded in selling a dream of enchantment. Here is further praise from 1821:

Could a follower of Mahomet have been imperceptibly translated to Vauxhall Gardens on a Monday night, his first emotion, on awakening, would be, that he had attained that Paradise so ardently described by his Prophet. The blaze of variegated light which burst on the view at the first entrance could not be compared to anything which had been previously seen on this sublunary globe. (GCVP. 68)

Twenty years later the likening of Vauxhall to paradise was still being invoked:

Lamps, in curious order planted
 Strike the eye with sweet surprise
 Adam was not more enchanted
 When he saw the first sun rise. (Forrester & Bunn 92)

Beyond London, Sydney-Vauxhall Gardens in Bath were also compared to mythic idealised gardens or in Egan's words in 1819, an 'Elysian scene' (qtd. in Borsay 26).

Just like Vauxhall, pantomime used the garden location throughout the eighteenth century and on into the nineteenth and twentieth centuries. Gerald Frow's history of pantomime describes how, starting with the early form of the genre, known as 'Italian Night Scenes', pleasure gardens featured as standard settings in 'stories told exclusively through dance, and customarily set in some place of pleasure to which people resorted of an evening, such as an inn, a tavern, a pleasure garden or fair'. For example, *The Rape of Proserpine; with, the Birth and Adventures of Harlequin* at Lincoln's Inn Fields Theatre, produced in 1727 by John Rich showed sets of gardens of Cere and Elysian fields. In 1807 Covent Garden staged *Harlequin in his Element; or Fire, Water, Earth and Air* which in the first scene featured a beautiful garden with terraces, arcades and fountains (36).

Eighteenth-century styles of garden design also featured novelties such as a hermitage, a cave or a grotto which carried with it connotations of Romantic solitude and self-reflection. Vauxhall displayed such a feature using a mixture of real and artificial materials. It was placed within real bushes/trees but the actual structure was more like a theatrical set made from wood supports and displayed a transparency representing a hermit. No doubt similar techniques would have been used by the scene painter, Thomas Greenwood, when he employed the same trope of the hermitage placed in an enchanted garden (this time accompanied by a fountain) for the pantomime *Harlequin Captive* produced at Drury Lane in 1795-6 ("Public Amusements" 61). The presence of a fountain within Greenwood's design was a recurring and shared attribute found in pantomimes and pleasure gardens. According to Mayer the finale of *Fashion's Fools; or Aquatic Harlequin* by Charles Dibdin the younger at Sadler's Wells (1809), made a 'most spectacular use of water' as described by the figure of Temperance,

And now, my sprite (to Harlequin) who first from water came,
To show their purity who boast my name;
To my fair garden 'tis my will to go,
Where crystal streams from magic fountains flow. (qtd. in Mayer 97)

At Vauxhall water appeared in two locations; the submarine cavern and the revolving fountain in the 1822 renovation of the Picture Room. The fashionable appeal of these effects was strong enough to be taken up in locations beyond the capital in venues like Bath's new Sydney-Vauxhall gardens of 1795 which incorporated a full package of picturesque features including a grotto, hermitage, cascade and labyrinth. In conjunction with lamps and transparent paintings, the

features of fountains and grottos (common to both pantomime and pleasure gardens) provided further opportunities to display spectacular lighting.

Pantomimes and pleasure gardens both sought to create the illusion that enchanted creatures such as fairies populated their sets of grottos and caverns. A clipping from the 1820s imagines that Vauxhall was home to a potent combination of the supernatural, the female, the rustic and the pantomimic:

May all the fays and fairies who disport themselves at the Surrey during Christmastide, all the divine young ladies who leap through hoops at Astley's – may Columbine and morris dancer, spangled sprite and motley Harlequin – take up their residences on the Royal property. (GCVP.1)

The theme of pantomime, fairies and illumination at Vauxhall persisted into the middle of the century with an announcement in Alfred Bunn's *Vauxhall Papers* of 1841 for 'Aladdin's Fairy Grove, illuminated for the first time with 34,000 additional lamps, forming emblematical devices' (Forrester & Bunn 58). Fairies, enchantment and light were a thematic staple of most pleasure gardens. Advertising in 1845 for the gardens of the Red Cow Tavern in Dalston followed a similar pattern announcing, 'The centre of attraction! Magic cave of enchantment realising early recollections of tales told about fairy land' (GFC. Theatre Bill).

Flitting between gardens and pantomimes, the fantastical figures of fairies and sprites were particularly suited to both spaces in terms of what they symbolised and how they symbolised. Associated with magic and playfulness their characters neatly slotted into the remit of the pleasure ground. But also the way in which they were represented harmonized with the aesthetics of illumination that Vauxhall promoted. Fairy imagery manipulated light and darkness depicting unusual and unexpected renderings of transparency and opacity to create

confusion between surface and depth, disorientating the viewer and causing a distrust of one's perceptions. Exactly the same visual techniques were used throughout Vauxhall.

Fairies, lighting and pleasure gardens provided rich material for writers who wished to create fictional scenes of spectacle and sensation. In *The History of Pendennis: His Fortunes and Misfortunes, his Friends and his Greatest Enemy* (1850) Thackeray exploited the association between fairies, pantomime and Vauxhall in an episode when the protagonist, Pendennis, makes a trip to the gardens and meets a young woman called Fanny Bolton: 'She shrank back as she spoke, starting with wonder and delight as she saw the Royal Gardens blaze before her with a hundred million of lamps, with a splendour such as the finest fairy tale, the finest pantomime she had ever witnessed at the theater, had never realized' (82). Thackeray describes Fanny's reaction to the gardens as if her entire body stands in for an eye; she shrinks and withdraws, much as a pupil would through over-exposure to the abundance of Vauxhall lights. The extensive process of fictionalising Vauxhall, for this representation is only one amongst many, demonstrates the degree to which the illuminated theatrical fantasy of pleasure gardens was used as a device for containing and expressing heightened emotions, perceptions and activities.

Aesthetics of Light

The numerous commercial pleasure gardens, and Vauxhall in particular, always dealt in encounters with extreme levels of illumination. Whilst entertainments in the garden, such as theatrical performances, changed from season to season, there was one element that remained a constant and integral feature of Vauxhall---the lights---which burned without fail for over two hundred years. Representations of the gardens in newspaper accounts, advertisements, novels, verse, songs, satires, memoirs, prints and paintings invariably made significant reference to the spectacular illuminations. Although the light of Vauxhall always exceeded mere functionality, towards the end of the eighteenth century and peaking in the early decades of the nineteenth century, light at Vauxhall became intensely decorative. Manipulations of light focused on the production of sensuous perception and therefore qualify as an aesthetic mode of expression. For this reason the light of Vauxhall can be analysed in terms of broader aesthetic criteria. The quantity, apparatus and display of the lights altered as new technologies were introduced and greater perceptual sensations were demanded by the promenaders. To date no research into Vauxhall has acknowledged or analysed the enduringly complex use of light, the early nineteenth-century shift in light intensity, or the accompanying cultural sensitivity to those lighting treatments.

The perceptual complexity of a trip to Vauxhall was conveyed by a visitor to the gardens in 1822, 'The first impressions of the magnificent scene I here beheld, baffles the descriptive ingenuity of language, by producing all the indescribable feelings of rapture and delight' ("Vauxhall Gardens" *La Belle Assemblée*). A

subsequent comment from 1837 lingers over the impossibility of describing the experience:

To analyze the entertainments at Vauxhall would be about as easy as to fix the outlines of smoke. Everything is so evanescent, so intangible, and so like a vision, that it is scarcely possible to assign a distinct character to any part of the agreeable varieties with which the gardens abound. (qtd. in Southworth 71)

If contemporary visitors struggled to verbally articulate the non-linguistic phenomenon of lighting arrangements, then the twenty-first century scholar perhaps faces an even greater challenge of interpretation when studying an aesthetics which falls beyond the boundaries of established disciplinary practices. Light is neither painting, nor sculpture, nor architecture, yet at Vauxhall light was manipulated as if it had an affinity with these materials of artistic expression.

In pleasure gardens light was rarely used in just its raw form of an unmediated flame, but was instead intentionally and unintentionally moulded by a diverse range of factors. The apparatus of lighting was particularly important. The length, width and material of a wick for an oil lamp affected the appearance of the flame. The design of aperture shaped how the flame from both an oil lamp and gas jet was released. The amount, quality and movement of air which came into contact with a combustible light source also impacted on the visual appearance of light. Moreover, the intensity and colour of light was also affected by the type and quality of fuel being used. The weighting, shaping and colouring of illumination was controlled by the mediating material which protected or reflected the light. Glass, fabric, foliage, water and mirrors all contributed to the sculpted transformation of raw light at Vauxhall. In 1805 an article in *The Times* detailed how certain lighting

effects were achieved when the author observed that the beauty of the lamps was ‘greatly increased by the ingenious device of affixing gold and silver leaf behind each lamp, suspended in the avenues’ (“Vauxhall” 3). On a trip to London in 1806 Silliman describes the Vauxhall lamps as ‘spherical, open at the top and suspended by a wire. The wick floats in the oil, and the whole forms a little illuminated hall’ (275). A further retrospective account from 1852 provides even greater detail of the variegated lamps which were:

very small semi-globular glass cups, the size of a very small tea cup, of every variety of colors—some are red, some are green, blue, yellow, orange, &c. Little wire handles are attached to these Lilliputian buckets, which contain oil, camphine, or some very inflammable substance. These little lanterns are strung along on wires which extend from bush to bush, from tree to tree, from pillar to pillar, from tower to tower, from pinnacle to pinnacle, in all possible directions. (Lyon 18)

Attention to the treatment of light was practised and perceived at micro and macro levels, from the shape of one individual flame to the large-scale arrangement of thousands of lamps into abstract, figurative and symbolic compositions.

Illumination became sculptural through the three-dimensional configurations of multiple lamps. Lyon’s description of Vauxhall’s illuminations continues with an example of how the lamps were worked into objects of light:

these little blazing semi-globes are grouped together into every conceivable shape and fantastic figure. For example, two hundred and forty of them will be so grouped as to represent an immense cluster of grapes; another cluster represents some beautiful bird; a third is a glorious rainbow! In short, every shrub is a burning bush; every tree is loaden with blazing fruit; every path and gravel walk is arched with radiance—every statue is wreathed with this glorious brilliancy; every pinnacle is livid with flame, and the whole

space for several acres glitters with the radiant splendor of the countless thousands of these tiny lamps! (18)

Not only is the description useful for us in terms of picturing how the lighting might have technically functioned, but the language also reveals an aesthetic response or appreciation of illumination. Lyon produces a rhythmic layering of example upon example building up to an expressive climax of intense wonderment and fascination with the transformative effect of light.

Lyon's enthusiasm about the adornment of bushes, trees, sculptures and buildings with ornamental lamps is best illustrated in the greatest spectacle of exterior architectural illumination at Vauxhall--the orchestra building located in the central grove of the gardens. Fig.4.4 is a coloured aquatint from 1809 which celebrates the sensory extravaganza of the building and activities that took place in and around it. Depiction of the underlying architectural structure has been overlooked in favour of an emphasis on the multiple and multi-coloured lamps that decorated the façade. Such an interpretation was echoed by a textual impression of the building from 1813 which also focused on the use of illumination:

The orchestra appeared as a *building of solid light*. The ornaments produced an effect entirely new and very beautiful since the light they shed was of a quiet, placid kind forming a grateful contrast to the overbearing splendour of the rest of the garden. ("Vauxhall Gardens" *Morning Chronicle* emphasis added)

At the opening of the nineteenth century light became increasingly architectural through its capacity to be used as an aesthetic marker of space and form in the built environment, functioning as a significant attraction outside as well as inside structures. When the new proprietors raised the Vauxhall entrance fee to four shillings in 1822 (Conlin "Vauxhall Revisited" 726) visitors were rewarded with new

attractions and greater quantities and varieties of light entertainments. A dramatically new interior aesthetic of illumination and reflection was showcased at Vauxhall for the first time in the Picture Room. Announced in the press as the Heptaplasiesoptron, large wall mirrors and ornate chandeliers transformed the room and its surfaces into a shifting, flickering, highly illuminated atmosphere. Rich with cultural significance, the Heptaplasiesoptron will be considered in more detail further into the chapter, but for the moment it is sufficient to mention the Heptaplasiesoptron in the context of light's non-functional collaboration with interior and exterior structures.

Figurative representations in light covered a range of subjects from mottoes and symbols to actual figures. In 1833 Vauxhall's master of ceremonies, Mr Simpson retired after thirty years service welcoming and guiding visitors through the gardens (Scott 95). In honour of the occasion a larger than life-size full length portrait of Mr Simpson was executed in lamps and a commemorative image of the event was printed (see fig. 4.5). This coloured lithograph by Robert Cruikshank captures a number of Vauxhall's defining features. In the foreground Simpson's stylized and self-conscious posture embodies the importance of physical performativity at Vauxhall. Standing opposite is the uniformed Duke of Wellington who Simpson shakes by the hand in a sign of solidarity, thereby affirming Vauxhall's desire to be associated with the elite, militaristic power-base of the nation. Cruickshank frames the encounter between Simpson and the Duke of Wellington with two clusters of visitors who form a loose circle looking on with approval. This dynamic ring of observation points to the general activity of watching and being watched which, as a self-generating entertainment, formed

part of the persistent appeal of a night at Vauxhall. Enclosing the scene are three other central components common to pleasure gardens---illumination and garden architecture contrasted against a backdrop of darkening foliage.

The print's punctuation of darkness by a series of individual lamps invokes earlier visual techniques used in *vues d'optiques* (referred to in chapter 1). Figs. 1.2 and 1.3 are a mid to late eighteenth-century transparent print of Vauxhall Gardens in which a combination of back-lighting and surface perforation were used to produce effects of luminosity. Simpson's figure outlined in bright points of light suggests a continuity of aesthetic intention between two-dimensional transparent imagery and illumination of three-dimensional spaces such as pleasure gardens. Equivalent to a canvas, the landscape of Vauxhall supported an aesthetics of light, form and colour producing an immersive re-constructed type of *vue d'optique*.

The continuity between two-dimensional and three-dimensional illuminated aesthetics is further strengthened by the frequent use of transparent imagery within Vauxhall and many other pleasure gardens. Themed structures such as the hermitage and submarine caves (see fig. 4.6) relied upon backlit painted screens to transport visitors to imaginary, fantastical environments. In the 1820s the proprietors of Vauxhall introduced additional modes of light manipulation and transparent imagery with fantoccini figures, dioramas and cosmoramas located at various points around the gardens. The entertainment of fantoccini figures was based on a form of pantomime puppetry which a Vauxhall carpenter named Grey adapted for the gardens using additional lighting techniques to produce a spectacle of shadows (Conlin "Vauxhall Revisited" 727). All of these forms of light

entertainment exhibited at Vauxhall were part of gardens' early nineteenth-century eagerness to explore and experiment with sensory responses to changes in lighting practices.

When the new manager, Frederick Gye updated the Vauxhall entertainments in 1822 he installed four new cosmoramas showing views including the New Exchange at Paris and scenes from Switzerland (Partington 28). Such additions indicate how Gye's business strategy relied upon the quick identification of popular and fashionable entertainments which he then adapted and incorporated into the pleasure garden experience. The following advertisement from 1826 for a dioramic attraction is indicative of the type of subjects a viewer could expect to see:

Cambia Veduta 6 changeable views

Teignmouth, in which picture the effect of lightning is shewn

White Abbey, Lake Killarney, illuminated occasionally by the setting sun Mont St Bernard, during which is seen the effect of a snow storm

Pont Eden, Wales, with the appearance of a rainbow

Vesuvius, first, the view of the eruption during the day, succeeded by the Night view, with fiery lava rolling down the mountain

Roslyn Castle, Scotland, a picturesque day scene changing afterwards to a moonlight scene. (VGA. 7)

As we have seen in earlier chapters, views of distant locations, dramatic natural disasters and gothic ruins were popular subjects for depiction, offering middle-class observers vicarious travel to destinations formerly associated with the aristocratic grand tour. In this way once elite pastimes were now available to a wider selection of society in the form of illusionistic representations. But I argue that because each location in the advertisement was accompanied by a different

type of atmospheric lighting effect it suggests that the depiction of light was of as much interest as the representation of events or topographies.

By 1827 Gye upped the ante and introduced large-scale shows based on re-enactments of events such as the Battle of Waterloo ("Vauxhall Gardens" *The Times* 5 June). Fire, smoke, explosions and other lighting effects provided most of the visual drama in these displays. In 1834 a three-dimensional theatrical re-creation of Captain John Ross's polar expedition to the Arctic was staged at Vauxhall and represented one of the greatest natural lighting conditions, the ephemeral and mysterious northern lights. Impressed with the display a writer for *The Times* asserted that the 'most interesting and ingenious parts of it is the representation of the Aurora Borealis, which is contrived by the chymical [sic] application of different gases' ("Vauxhall Gardens" 31 May). Gye's popular entertainment enthusiastically exploited innovations from disciplines of science, technology and artistic techniques in order to present a spectacular illusion of natural lighting phenomena.

The staging of events such as Ross's expedition highlights a further angle of how light was used and experienced in pleasure gardens. Spectacular illumination was performative, having a set duration and structured with a beginning, middle and end. As was discussed in section two, the onset of darkness brought with it the sudden mass illumination of the gardens. Deeper into the night more lighting displays followed and circulating visitors were drawn to the illuminated focal points of transparent paintings, dioramas, cosmoramas and phantasmagorias. Each nightly show was subtly unique due, in part, to the variable conditions of natural lighting caused by the presence or absence of clouds and

moonlight combined with other climatic elements of wind and rain. Susceptible and responsive to the environment, illuminated designs also exhibited elements of movement so that as a breeze caught the variegated lamps, which hung in the branches, a swaying penumbra of diffused light would have played upon the visitors, or a different quantity of moisture in the atmosphere would have subtly altered the degree of sparkle given off by lights such as fireworks. Moving in and out of the light visitors would have been affected by and implicated in the light performance. One could never just neutrally observe the light; you were either in or out of the light, fluctuating between the role of an observer or participant. In this way light was not just a passive visual experience. It became a physical choice about exposing one's body to light or darkness.

The different sculptural, architectural, painterly and performative aesthetic qualities of light in pleasure gardens were frequently united by the recurrent trope of a relationship between natural and artificial materials. This binary oscillated between an emphasis on collaborative partnership, where each element offset and complemented the other, to an emphasis on rivalry and competition. The former relationship of emulation is in evidence when artificial lights were intertwined and literally supported by the foliage of the gardens as described in this advertisement from 18 July 1829, 'Many thousand extra lamps formed into numerous beautiful emblematical devices and decorated with a profusion of flowers, shrubs and evergreens of various kinds' (VGA. 8). There is no sense of one element outdoing the other. It was not just the gardens' language of advertising spin that used the natural/artificial partnership to represent the illuminations. The Hon. John Harvey Darrell, chief justice of Bermuda, expressed similarly descriptive sentiments in

1816 when he wrote that Vauxhall displayed ‘A profusion of coloured lamps, imitating flowers and branches of trees’ (qtd. in Scott 65). The theme persisted and was taken up by an article in the *Illustrated London News* on 6 June 1846, which used the metaphor of lamps being harvested like fruits to indicate the seasonal closure of Vauxhall in early autumn; ‘...its leaves fall; its fruits—which are the lamps, gay and diversified as those aforesaid Aladdin’s gardens are gathered; and the whole place becomes a dismal waste’ (VGA 37).

However, the aesthetic dynamic between natural and artificial materials was not always interpreted as collaborative. For some commentators it appeared as if artificial light was vying for supremacy over natural illumination. Wordsworth briefly expresses this dynamic in *The Prelude*, ‘Vauxhall!....I then had heard / Of your green groves, and wilderness of lamps / Dimming the stars and fireworks magical’ (511). Twenty years later in 1823, during the decade in which the gardens became lighter than ever before, a similar sentiment was expressed in the *Vauxhall Observer*, ‘The evenings were serenely beautiful, and the lady moon shone with a delicate lustre, “half open, half shutting, each tremulous light” as though envious of the blaze of splendour arising from this earthly Paradise’ (VGA. 4). This figuration of Vauxhall captures a number of broader cultural themes. The gardens’ attempt to attain a paradisical status has already been discussed, but the additional conceit of Nature’s envy towards the artificially illuminated environment suggests that experiences of light were at the forefront of negotiations in a new status quo between urban society and the natural world. The timing of re-appropriating Thomas Moore’s phrase, ‘half open, half shutting, (such) tremulous light’ from his poem “Fanny of Timmol” (93), which replaced the original description of a

woman's eyes with the light of the moon, was particularly suggestive given that Daguerre opened his new dioramic attraction in London that same year. This conflation of literary and entertainment techniques indicates the degree to which illuminated effects were part of the linguistic and perceptual vocabulary of early nineteenth-century cultural imagination. Furthermore, it highlights how the aesthetic of light was used to mediate an interchangeable relationship between the attraction of Nature in the pleasure garden, and ideals of feminine beauty.

The gendered personification of light as female, as in the 'lady moon' from the previous quotation, featured regularly in textual representations of the gardens. A verse from *The Poet's Invitation to Vauxhall Gardens* of 1810 is one of numerous examples which feminizes light:

Come, haste! Let us join in the sports of yon scene,
 The night's gloomy hours to beguile;
 Mirth beckons us thither, and Pleasure, bright Queen!
 To her revel invites with a smile. (J.C. 51-52)

And thirty years later a similar device is still in active use:

The lights are so brilliant. The fancy they strike
 As a charm that is quite superhuman:
 For nothing we know of, their splendour is like,
 Excepting the eye of a woman!
 ("The pros and cons of Vauxhall Gardens" Forrester & Bunn 21)

The gendered personification of light in pleasure gardens belongs to the wider cultural of appropriation of light which chapters one and two have explored through the practice of domestic transparent painting and the dressing of women windows.

Interpretative responses to Vauxhall frequently relied upon the binary dynamic between natural and artificial light. This trope was voiced through

Smollett's character Lydia Melford in *Humphrey Clinker*, 'Ranelagh looks like the enchanted palace of a genio, adorned with the most exquisite performances of painting, carving and gilding, enlightened with a thousand golden lamps that emulate the noonday sun' (133-134). Smollett's fleeting imagery of bright, shiny artifice attempting to mimic the natural power of sunlight tapped into eighteenth-century debates about man's changing relationship to nature. The depiction of natural versus artificial light extended beyond the sphere of the pleasure garden and was deployed in other modes of cultural expression such as Joseph Wright of Derby's *An Experiment on a Bird in the Air Pump*, executed three years prior to *Humphrey Clinker* in 1768 (see fig. 4.7). Derby represents a scientist as entertainer surrounded by observers in various states of engagement. A concealed light source located amongst the apparatus illuminates the party with a strong dramatic effect of chiaroscuro. As viewers we are pulled between the central gaze of the scientist who stands over his unnatural light and the gaze of the boy to the right who controls the light of the moon. Scientific enlightenment takes centre stage and dramatically dominates the paler, natural moonlight which has been relegated to the wings of the scene.

The tension between forces of nature and culture increased over time as the process of industrialization gathered pace throughout the course of the nineteenth century. By the middle of the century the competition between natural and artificial light at Vauxhall had been won. In 1846 a writer for the *Dramatic and Musical Review* demanded of the gardens:

Give us the more modern edition – let us walk by the picturesque fountain where the old temperance God (Neptune) stands triumphant in his car, with his watery steeds, splashing the crystal spray in all directions – not by the

natural light of the moon, but by the artificial, and more convenient, glare of the gas. (VGA 37)

As the quantities of light grew ever greater and the presence of darkness receded, so too did the possibility of seeing the natural starlight and moonlight of the night. Paradoxically the gardens' excessive light stimulated transparent painters to create simulated, idealized versions of the night sky. Disregarding representational accuracy moon, stars and sun were frequently placed together in a desire to provide an abundant illusion of celestial illumination, which as a commentator from 1841 observed 'makes a beautiful appearance in a dark night' (VGA. 5).

Other gardens exhibited similar imagery such as those at St George's Fields where a transparent painting of the *Temple of Apollo at Apollo Gardens* was displayed and deemed worthy of comment by a journalist who reported, 'There is one novelty in particular, which produces so happy an effect, that we cannot, in justice to the inventor, pass it unnoticed:- it is a kind of orrery in the dome, displaying a pallid moon between two brilliant transparencies' (GFC. C1789).

Pleasure gardens created and controlled their own nocturnal firmament because the increasingly excessive light from the gardens reduced the original nocturnal sky to a flattened expanse of blackness. As early as 1813 a visitor to Vauxhall observed this effect, 'The night was cloudless, but none of the heavenly bodies were visible.' ("Vauxhall Gardens" *Morning Chronicle*). These examples gesture towards the significant changes that occurred in pleasure gardens' relationship to darkness as well as light.

Images of moonlight and starlight were not the only aesthetic themes present in the content of artificial lighting displays. During the late eighteenth and early nineteenth century most illuminated representational content at Vauxhall was

formulaic, being pulled from a generic stock of subjects that adhered to a safe allegiance with militaristic and monarchical authority combined with an agenda to reinforce social hierarchy. Visitors gazed upon a range of transparencies representing the King, the Prince Regent, members of the aristocracy and personifications of national potency in the form of Britannia and illuminated mottoes celebrating military victories and highlighting particular heroes such as the Duke of Wellington. An explicit example of this nationalistic imperative is described in a clipping of 1804:

Splendid emblematical devices and capital transparencies of the most distinguished heroes who have so nobly signalized themselves in defence of their country, will adorn the Rotunda and parts adjacent, presenting the whole a most interesting display of national grandeur and magnificence.

(GCVP. 164)

Similar visual tropes were to be found in numerous other Vauxhalls, such as the Bath pleasure gardens, as is evident from this advertisement from 1826 which promoted ‘a grand gala with fireworks, illuminations and decorations, a grand transparency of the Battle of Waterloo’ (“Sydney Gardens, Vauxhall Bath”).

Artificial lighting of pleasure gardens went far beyond a task of functional necessity. The raw and dynamic properties of light were harnessed and shaped into highly nuanced aesthetic arrangements in which aspects of both the form and content of lighting were taken into consideration. The increasingly complex combination of aesthetic elements deployed in the early decades of the nineteenth century demonstrate the proprietors’ intention to both satisfy and further stimulate visitors’ new and voracious appetite for illuminated entertainments. Lighting had become fashionable.

The possibility that light could now be judged according to a swiftly changing and subtle criteria of contemporary taste meant that light had the capacity to produce purchasable perceptual experiences of modernity. As the country's capital, London functioned as an internationally visible stage upon which both the dreams and nightmares of the swiftly changing country were played out. Tangible demonstrations of belief in the city's prowess were articulated in Vauxhall's nightly festivals of light, which displayed patriotic pride and commercial confidence.

However, whilst the wealth and well-being generated from the new business of industry and international trade flowed through elite social circles it did not filter down the social strata to alleviate political strife and economic hardship. The new and even brighter Vauxhall of the 1820s boldly shone out, seemingly impervious to national incidents of unrest and deprivation. A year after Vauxhall's most powerful supporter, the Prince Regent came to power in 1821, the country experienced widespread economic distress. Wheat prices rose acutely, Luddite acts of protest broke out in the north of the country and radical dissent over the Queen Caroline scandal gripped the nation. Yet, none of these pressures appeared to unsettle the operations of or attendance at the venue. The aristocratic elite and the aspirational middle classes continued to eat, dance and watch the spectacles and each other within the fantasy world that was Vauxhall. This unattributed clipping from 1832 identifies and supports the connection between light, royalty and Vauxhall:

We attended Vauxhall one day last week, on the occasion of the Gala to celebrate the King's birthday, when additional lamps were introduced as

symbols of royalty, and galloons of oil were burnt to prove that the King lives at least in the hearts of the proprietors of Vauxhall Gardens. (VGA. 37) The announcement of ‘additional lamps’ was a common strategy used in much of Vauxhall’s promotional material. It followed that the more important the event, the larger the number of lamps on view. It was also the case that, according to the advertisements, the number of lamps at Vauxhall increased year on year. Such was the managers’ commitment to this seasonal multiplication of lights that the (supposedly) exact number of lamps was often cited in the propaganda. A notice for a Grand Fete in September 1823 draws readers’ attention to the international precedent set by the inclusion of so many more lighting devices, ‘30,000 extra lamps will be introduced on this occasion, presenting, in one new, A BLAZE OF LIGHT AND SPLENDOUR NEVER BEFORE EXHIBTED IN ANY COUNTRY’ (VGA 5). A more detailed cutting of the same year went a step further and provided a breakdown of the number and types of lighting arrangements to be exhibited. The techniques of itemizing the lights and stating precisely where they were located in the gardens created a heightened impression of diversely spectacular lighting:

The following is a description of the principal illuminations which are to be exhibited this evening:

In front of the words Almels and Budajos 3000

Rodrigo and Wellington 5000

Other decorations 6000

Under the covered way 9000

The Rotunda and rooms adjoining 4000

The Royal Pavilion 2000

In front of the covered way the word Vittoria and other embellishments 9000. The other parts of the gardens will contain, exclusive of

transparencies, allegorical figures, triumphal arches and other luminous objects, at least 3000 lamps. The total number according to the above statement, will be 41,000 variegated lights, besides chandeliers, lustres and candelabras. (VGA 36)

This advertisement, and many others like it, appropriated the textual structure of an inventory, asserted the financial health of the gardens and indicated the managers' desire to publicly rationalize their business as if they were publishing their annual accounts rather than promoting entertainments.

Lighting Vauxhall fashionably season after season incurred a high financial commitment. In fact the spectacle of illumination was the single most expensive outlay for the managers. For example, accounts from a week in 1824 detail that the cost of running the lamps totalled £210, the next most expensive item was music costing £145 (Southworth 98). For this reason alone it can be considered as the primary form of entertainment in the gardens. Oil for illumination was an expensive commodity and used sparingly in most households, but at Vauxhall it was consumed in abundance. The high cost and excessive quantity of oil available at Vauxhall meant that the proprietors were vulnerable to oil theft, sometimes from their own employees, the lampmen, who either stole for resale or personal consumption.

In effect it was light that was stolen, or at least latent light, which underscores its value and the unequal distribution of the resource. Individuals working in the shadows of the spectacular façade of Vauxhall entertainments were willing to risk deportation in an effort to possess the commodity of oil, whilst paying visitors bathed in supernumerary illuminations and witnessed the conspicuous display of their wealth in the daily combustion of vast quantities of oil. By burning

the precious resource of oil the business of light entertainment produced profit for the managers of Vauxhall. For Miller, whose philosophical work approaches the garden as a work of art, Vauxhall fulfilled a core criterion in her definition of what is a stake in such a space. She writes '...in a garden, there is in some sense an "excess" of form, more than can be accounted for by physical necessity, and this form provides some sort of satisfaction in itself, and some sort of "meaning", or "significance" - whether aesthetic, or sensual, or spiritual, or emotional' (15). In pleasure gardens of this period light was the single most excessive form.

In contrast to the advertising agenda, members of the public were not always convinced about the accuracy of Vauxhall managers' claims for facts and figures pertaining to lighting entertainments. Managers' efforts to spin an image of wealth and success received a bitingly satirical response from a writer for *Punch* in 1845:

By the way it would make a very tidy sum in arithmetic to compute the number of lamps at present burning at Vauxhall Gardens, for as there have been five million additional occasionally clapped on, the lamps must have by this time reached an amount that would have kept that calculating old cock Cocker continually adding up to get a correct notion of. As five million additional lamps are to the year 1830 so is 1845; or 'to put the syllogism thus' as Sir Bulwer Lytton says – if Vauxhall took five million additional lamps fifteen years ago and it has been going on at the same rate ever since, what on earth will it come to! (30)

What indeed did it come to and what did this drive to continually add to the existing lights mean? The preoccupation with an ever-increasing number of lights at Vauxhall suggests that the perceptual aspects of early nineteenth-century entertainment stimulated a debate about the rationalization of pleasure. There

were those who sought out a marketable formula for calculating both enjoyment and profit, whilst for others, such as the *Punch* writer, there existed scepticism about such an approach.

Yet, when Schlesinger recounted a trip to Vauxhall in *Saunterings in and about London* (1853), rather than perceiving a rational, ordered form of illuminated entertainment the author commented instead upon the excessive irrationality of the spectacle:

With respect to the *quantity* of sights, it is most difficult to satisfy an English public. They have “a capacious swallow” for sights, and require them in large masses as they do the meat which graces their tables. We go in search of the sound; but, alas, we witness nothing save the triumph of the insane activity of the illuminator. A tiny rivulet forces its way through the grass; it is not deep enough to drown a herring, yet it is wide enough and babbling enough to impart an idyllic character to the scene. But how has this interesting little water-course fared under the hands of the illuminator? The wretch has studded its banks with rows of long arrow-headed gas-lights. Not satisfied with lighting up the trees, and walls, and dining-saloons, he must needs meddle with this lilliputian piece of water also. That is *English taste*, which delights in quantities: no Frenchman would ever have done such a thing! (35-36)

Schlesinger's fond but not uncritical account of Vauxhall emphasized a seemingly insatiable appetite for light, and his reference to visitors' 'capacious swallow' conveyed the visceral, haptic nature of perceptually consuming the gardens' illuminations. Schlesinger was not alone in describing a response to the lights which went beyond an act of calm observation. A visitor in 1811 states that 'the moment I went in I was almost struck blind with the blaze of light proceeding from thousands of lamps and those of every color' (Morse 63). Visitors' sensory

thresholds kept pace with the increase in lights over the intervening decades and Vauxhall illuminations continued to present a scene in which ‘one wide-extended and interminable blaze of radiance is the idea impressed upon the dazzled beholder’ (Knight 409). Linguistic expressions of excess or interminable light combined with images of ingestion, temporary blindness and dazzling suggest the possibility of over-stimulation, with one sense sated and spilling over into another, so that light was felt as well as seen. Sensory overload and/or disorientation from too much light, multiple reflections or swiftly contrasting transitions between light and dark environments produced discursive tensions about the cultural value of the gardens. The official advertised order of lights attempted to objectively quantify pleasure, but such an effort ran counter to visitors’ impressions of an overwhelmingly illuminated farrago. Pleasure gardens struggled between a drive to embrace and exploit an emerging fluidity of perception and an anxiety about how to align those unruly dynamics with the simultaneously developing capitalist imperative to rationalize perception.

Renovations and Reflections

The proliferation of effects from mirrors and light at Vauxhall dramatically affected perceptual experience; it persuaded fashionable culture to understand itself in the new, unfolding landscape of modernity. For Jean Baudrillard:

The mirror is an opulent object which affords the self-indulgent bourgeois individual the opportunity to exercise his privilege – to reproduce his own image and revel in his possessions. In a more general sense we may say

that the mirror is a symbolic object which not only reflects the characteristics of the individual but also echoes in its expansion the historical expansion of individual consciousness. (21)

In light of the connection Baudrillard draws between the symbolism of the mirror and subjectivity, this section argues that changes in the materials, techniques and practices relating to illumination in the 1820s marked the onset of a historical shift in cultural as well as individual perceptual consciousness. The process behind this movement at Vauxhall must now be unpacked if a case is to be made for such an alteration.

In 1822, Frederick Gye, the new owner of Vauxhall gardens made the decision to renovate and re-launch his business in an effort to determine the style of fashionable entertainment. Extravagantly mirrored walls and large chandeliers were a dominant feature of the refurbishment. These fresh attractions played a leading role in a new phase of the gardens' perceptual pleasures. Moreover, these changes were an influential and early example of a new, wider trend in the interior design of popular entertainment venues. The new and multiple use of mirrors and light in sites such as Vauxhall, the Coburg Theatre, the Colosseum and the Argyll Assembly Rooms is evidence of changing formations between pleasure, perception and public sociability which can be partly linked to a dissemination of Regency decorative styles first favoured in royal or elite residences (Jay 88). Vauxhall's enthusiastic royal patron, the Prince Regent, used his London residence of Carlton House to display an expensive taste for a complex mix of materials and styles. Acquiring the site in 1783 the Prince commissioned leading architects Henry Holland, James Wyatt and John Nash to produce a series of extravagant rooms for elite entertaining. Mirrors and lighting devices were used

extensively and ostentatiously throughout the apartments. Describing the circular room Westmacott wrote that 'The four pier glasses produce a magical effect by reflection, giving the room the appearance of endless continuity, and increasing the splendour fourfold' (9).

The masquerades, ball, fetes and musical entertainments enjoyed at Vauxhall were also available in other locations across the city. Assembly Rooms, first established in the eighteenth century as spaces designed for polite social mingling continued to be popular into the early nineteenth century. One such location was the Argyll Rooms, on Little Argyll Street re-designed by John Nash and re-opened in 1820. Decorated with drapery, mirrors and chandeliers, the rooms provided a sensorily rich and opulent atmosphere in which to be seen in public (Hall-Witt 123; Rendell *The Pursuit of Pleasure*). In 1826 the journalist Richard Carlile criticized the Argyll Rooms in his capacity as editor of the *The Republican*, a radical periodical. Judging the venue to encourage 'vanity' and 'vice', he went on to say of a masquerade at the rooms that 'I have no taste for the artificial, however fine and dazzling' (55). For Carlile the experience of intense and glaring illumination was dangerously associated with morally reprehensible attitudes and activities. The tensions between enjoying the pleasures of light whilst maintaining social respectability are a direct continuation of the issues discussed in chapter two.

In 1824 construction began on Regent's Park Colosseum. In an article about the venue from 1829 a contributor to the *Poetry and Varieties of Berrow's Worcester Journal* wrote in admiration that 'room succeeds room, and avenue leads to avenue, forming beautiful vistas between exotics and native shrubbery,

artfully reflected by almost countless mirrors, leading to a long conservatory, entirely of glass...' ("The Colosseum in Regent's Park" 16). A print from 1838 entitled *Hall of Mirrors* depicted one of the aforementioned mirrored rooms (see fig. 4.8). Here people could move between an idealized panoramic portrayal of their capital through to rooms of reflected self-representation. Paint and light collaborated in an aesthetic effort to recast notions of the city and the self.

By the 1830s and 1840s improvements in manufacturing methods for mirrors meant that availability and types of mirrored commodities had expanded whilst the cost had reduced. However, in 1822, (the year of Vauxhall's renovation) the means of producing mirrored glass was still in an early phase of transition, recently emerging from traditional and relatively painstaking artisanal techniques. Although ownership of mirrors had expanded from an aristocratic to bourgeois commodity by the early nineteenth century, it was still a relatively luxurious item (Melchoir-Bonnet). Therefore, the sensory novelty of large plates of mirrored glass hovered on the cusp of a shift away from eighteenth-century associations of exclusive wealth and success, being drawn on the one hand towards more inclusive encounters with materials of reflection and illumination, but was also on the other hand anxiously pushed away through fears of vulgarity and immorality.

One side of the push-pull dynamic was manifested in Vauxhall's new attraction of the mirrored Heptaplasiesoptron. The spectacle was described by the proprietors in the first official guidebook to Vauxhall as:

...an entirely new feature of amusement in these gardens, constructed by Mr Bradwell of the Theatre Royal Covent Garden. It is composed of a number of large plates of looking-glass placed in the form of a semi-hexagon, which constitute the walls of the exhibition and in these, seven

points of reflection are gained for the view of several illuminated revolving pillars and palm trees, twining serpents, and a fountain of real water; the whole lighted by coloured lamps and brilliant cut glass chandeliers.

(Partington 19)

Before considering the arrangement and use of light within the Heptaplasiesoptron, the location, framing and naming of the entertainment must be evaluated in order to understand the physical and conceptual context of the new attraction.

The Heptaplasiesoptron was located in the Picture Room, or Saloon, which along with the Rotunda and the Prince's Pavilion formed the central hub of social mingling at Vauxhall. Up until this point the Picture Room displayed paintings by the eighteenth-century artist, Francis Hayman. Now, in the early nineteenth century, the Heptaplasiesoptron's plates of mirrored glass obscured a number of Hayman's pictures signalling an unequivocal change in matters of taste. No doubt over the intervening sixty years, Hayman's paintings had lost much of their original subtlety of colour and brush stroke, but their usurpation by mirrors cannot just be put down to flagging appeal through wear and tear, for if that had been the case other paintings, rather than mirrors could have been commissioned to replace them. No, it appears that the managers felt visitors were more interested in looking at reflections of themselves than at painted representations of historical characters and situations.

The promotional framing of the Heptaplasiesoptron detailed in the managers' guide as being 'exhibited between the hours of 10pm and 1am and is otherwise hidden from view,' primed visitors' expectations (Partington 19). Once in the gardens the strategy of restricting visitors' access to designated hours,

combined with the theatrical practice of concealing and revealing the design, elevated the attraction to a rarefied status, thus increasing viewers' desire to witness the spectacle.

Visitors' interpretation of the attraction was manipulated further via the proprietors' linguistic invention of the eye-catching and tongue-twisting seven syllable title for their new attraction. This neologistic device conceptually set the entertainment apart from the surrounding environment of the Picture Room. The linguistic and perceptual identity of the Heptaplasiesoptron was saturated with and validated by associations of scientific learning found in the recent commodification of objects known as philosophical or optical toys such as the kaleidoscope and thaumotrope. Yet this urge to validate the entertainment through a scientific context was complicated by the extremely challenging intricacy of its title. Given that the ability to express one's experience and refer to one's environment by the act of naming is understood to be a central component of subjectivity, it is significant that this perceptually complex entertainment possessed such an equally complex name. An article from the periodical *Drama in July* 1822 provides a humorous impression of visitors' reaction to this aspect of the spectacle recalling that 'It was amusing, the other evening, to hear the various ways the promenaders pronounced that hard word *Heptaplasiesoptron*. When the time approached for it to be seen, some cried- "Now for the *Hippee-plaister-on!*" ("Town Talk" 103). The article continues with a series of other possible pronunciations. The physical struggle to say the word matched the struggle to control the perceptual experience of seeing one's multiple and fragmented reflection in the Heptaplasiesoptron. Whilst this playful struggle of finding expression and managing perception was

contained within the pleasure gardens, beyond the grounds a wider and more serious effort was underway to reconcile individual subjectivities with the effects modern urbanism. Vauxhall offered not so much an escape from urban reality, but an altered version in which one could test out and acquire new perceptual skills for coping with the strains of metropolitan existence. The distinct nature of these cultural shifts is marked by the difference between the eighteenth and nineteenth-century treatment of mirrors and light at Vauxhall.

From the middle of the eighteenth century mirrors had been incorporated into architectural designs at Vauxhall and were originally displayed in the Rotunda, the central room of social circulation, and adjoined the Picture Room which was to later house the Heptaplasicoptron. The presence of mirrors in the Rotunda appears to have had two main functions; firstly, to enhance and alter lighting effects; secondly, to actively position the reflected likeness of the viewer so that it became both object for his or her own gaze and that of others (see fig. 4.2). In *A Sketch of Spring Gardens in a Letter to a Noble Lord* the room is described as follows:

In the middle of this chandelier is represented in plaster of *Paris*, the rape of *Semele by Jupiter*; and round the bottom of it is a number of small looking glasses curiously set: Above are sixteen white busts of eminent persons, ancient and modern, standing on carved brackets, each between two white vases: a little higher are sixteen oval looking-glasses ornamented with pencil'd candlesticks, on a two armed sconce: If the spectator stands in the centre, which is under the great chandelier he may see himself reflected in all these glasses. (Lockman 10)

This style of decorative entertainment at Vauxhall claimed no unique name and was merely part of the overall Rococo interior design. The designer's intention was

to seamlessly embed the visual elements in, rather than separating them from, the wider space. As such it was something that might amuse the visitor as they passed through into supper, but did not constitute a major visual attraction and was not significantly mentioned in any promotional literature or visitor accounts of the period. Dixon Hunt (34), Gores (55) and Nosan (118) all observe of the Rotunda that whilst the viewer saw him or herself reflected in the mirrors they would also have been able to imagine themselves ranked with the eminent personages depicted as busts. In effect the visitor became a living statue in possession of elite social status. This public space of leisure promoted and actively groomed the visitor by fostering a practice of social emulation. The design both re-enforced and encouraged aspirational behaviour that sought membership in the emerging class structure of the eighteenth century. However, none of these scholars go on to mention the addition of the Heptaplasiesoptron or consider the significance of these changes.

The aesthetic and architectural origins of the mirrored Rotunda can be traced back to the seventeenth-century '*cabinet lambrisse*, or panelled study' in which, as Sabine Melchoir-Bonnet explains in her cultural history of the mirror, 'men and women of means took in games of light reflected in the mirror's brilliant surface and enjoyed seeing their own faces reflected in the portrait gallery of their ancestors (140). In spite of the aesthetic parallels between the eighteenth-century décor of the Rotunda and the seventeenth-century *cabinet lambrisse*, it should be noted that major social differences also existed between these modes of visual display. The seventeenth-century use of mirrors was restricted to acts of elite and private entertainment whereas, according to Solkin's interpretation (155) of

Habermas, the Rotunda was an exemplary instance of the formation of the public sphere. Eighteenth-century cultural capital was no longer solely conferred through the blood of ancestors under the guise of ‘natural’ rights, but was now also beginning to flow in the veins of an emerging ‘middling sort’ and was being visually articulated in a venue of public entertainment. This ‘middling sort’ sought to appropriate aristocratic values and slip into a pre-existing language of authority. However, in the nineteenth century as the ‘middling sort’ expanded into the middle classes, the hierarchical emulation enacted in the Rotunda mirrors ceased to be culturally appropriate or aesthetically affective. The need for an alternative mode of sensory entertainment resulted in the creation of the Heptaplasiesoptron.

The Heptaplasiesoptron was a focal point to which visitors were drawn rather than a secondary feature that visitors experienced as they passed underneath the chandelier of the Rotunda. A writer for *La Belle Assemblée* conveyed the popularity of the new attraction:

I now walked to the rotunda, at the door of which the pressure became quite intense, owing to the shoals of company seeking ingress and egress. The decorations have been vividly retouched, and several new embellishments added to this department, among which is a costly chandelier, formed of a patent lamps, hung on a novel construction, and beautifully intermingled with chains of cut-glass drops and wreaths of roses...But the grand focus of attraction appeared to be the Grand Heptaplasiesoptron. (“Vauxhall Gardens” 1822: 378)

Unlike the eighteenth-century design of the Rotunda, the Heptaplasiesoptron did not contain representations of socially significant people; instead the exhibition consisted of just reflective surfaces. The size of the mirrors had greatly increased from those used in the Rotunda decoration and the placement of mirrors moved

from being embedded within the ceiling display to forming a more dominant vertical display. The result was an almost all encompassing reflected environment in which the only other substances were materials intended to augment the intensity of reflection, such as water, glass and light. The *Gentleman's Magazine* describes the scene, 'The centre is occupied by a cooling fountain; and looking-glasses skilfully placed in the background reflect both the ornamental objects and the spectators with something approaching magnificence of effect' ("Vauxhall Gardens" 558). The early nineteenth-century arrangement and attraction of the Heptaplasiesoptron was not in imagining oneself positioned amongst the old order of the aristocracy, but in observing oneself freely operating within a more socially inclusive structure of the gardens. This was a performative experience of subjectivity.

In the years leading up to the mirrored creation at Vauxhall the Prince Regent and his circle, including the highly image conscious Beau Brummell, had regularly patronised the gardens, thereby contributing to the venue's reputation for displays of fashion and luxury (Schlesinger 35). Whilst the friendship between Brummell and Prince George had ruptured in 1811 and Brummell had left for the continent in 1816, his influence on fashionable society was still very much in evidence. With Gye's 1822 raising of the entrance fee to 3 shillings and six pence, then raised again in 1826 to 4 shillings, it was clear that the manager was keen to make money from a more affluent social strata and maintain an air of fashionable exclusivity. This move was supported with the Prince's accession to the throne that same year when he conferred an updated title of the "Royal Gardens, Vauxhall" upon the venue encouraging aristocratic attendance to events such as the 1828

Benefit for the Spanish and Italian Refugees which was patronised by approximately thirty members of the aristocracy including, Duchess Dowager of Leeds, Duchess of Bedford, Duke of Clarence, Duke of Cumberland and Duchess of Kent amongst many others (GCVP. 164). But in spite of the new King's gesture to claim Vauxhall as enduringly elite, the 1820s was the last decade in which a significant number of elite visitors attended Vauxhall. It was also during this decade that greater numbers of middle-class visitors began to take possession of the gardens (Conlin "Vauxhall Revisited" 726). The Heptaplastiesoptron can be interpreted as a direct expression of the proprietors' intention to maintain the venue's kudos through the values of luxury associated with the material of mirror whilst also catering for a growing middle-class fascination with self-image. The eighteenth-century head and shoulders reflections of visitors in the Rotunda was superseded by a new image of the reflected body displayed full length, moving and merging with an array of other bodies. Attention to one's sartorial appearance, as exemplified by Beau Brummell was now, more than ever, also part of the spectacle.

The Heptaplastiesoptron was a new attraction for pleasure gardens and it called upon a lineage of mirror designs that was separate from the treatment of mirrors in the eighteenth-century Rotunda. One possible precursor to the nineteenth-century attraction was created by Athanasius Kircher, a Jesuit scholar, who outlined plans for a mirror box which he called the *theatrum catoptricum* described in his work *Ars Magna Lucis et Umbrae* of 1646. Like the Heptaplastiesoptron this miniature room or cabinet was fitted with many small squares of mirrors. Kircher refers to his device as a theatre 'because the scenes in

this perpetual, multiplying space could change instantaneously' (Stafford 261) and he also suggested using plants to enhance the appearance of an expansive illusory world.

Over one hundred years later the Englishman, William Hooper, published plans for his own version of a mirrored box which he referred to as 'a perpetual gallery' in his *Rational Recreations* (264). This was the period in which a fascination with the representation of perspectival depth, optical devices and illusions of never-ending space proliferated (Kemp). Brewster's invention of the kaleidoscope indicated a continuing preoccupation with the mirrored receptacle into which one looked and re-iterated the collaboration between science and popular consumer culture during this period. Whilst the Heptaplasiesoptron keyed into aspects of these aesthetics it also differed in some ways. Unlike the previously mentioned visual entertainments, the Heptaplasiesoptron was a semi-contained room that displayed a mixture of mirror, glass and water scaled to hold numerous human bodies rather than just accommodating the eye of one viewer. What was previously a solitary experience had become a fully embodied and shared social experience.

An important architectural precursor to the Heptaplasiesoptron was the socially elite space of Louis XIV's Galerie des Glace at Versailles, completed between 1682-4, which like the Heptaplasiesoptron would have held many bodies. However, the individuals at Versailles were privileged courtiers who mingled in a venue that was far from being a commercial enterprise like that of Vauxhall which was accessible to anyone who could afford the three or four shilling entrance fee. Thus, at Vauxhall the experience of seeing oneself and others multiplied and

fragmented became a more inclusive form of entertainment in the early nineteenth century and signalled a shift in viewing practices from elite to mass spectacles of illumination.

The formerly named “Picture Room”, once displaying paintings, had been transformed into a new picture room of self-representations. The spectacle was the creation of a theatrical set designer, Mr Bradwell whose contribution was acknowledged in much of the promotional material.

This scene was planned by Mr. Bradwell, the ingenious mechanist of Covent Garden theatre. The original was the fairy scene in the popular entertainment of Cherry and Fair Star, in which, the whole invention of this gentleman appeared to have been put in requisition. A more pleasing and interesting illustration of romance could not possibly have been devised, and this, combined with beautiful scenery, gave a peculiar richness of stage effect, hitherto unrivalled in the annals of melodramatic fame. (“Vauxhall Gardens” *La Belle Assemblée* 1822)

The widening appeal of this type of attraction is demonstrated by Bradwell’s continuing and expanding involvement in mirrored entertainments when in the 1840s he became the second owner of the Colosseum and renovated the venue along similar but grander lines to the earlier version of the Heptaplastiesoptron:

The Conservatories, then, have been entirely reconstructed and refilled: they are now most elaborately decorated in the Arabesque style; and the architecture is a tasteful combination of the Moorish and the Gothic: it is furnished with the choicest flowers and shrubs, both native and foreign: and in the centre is a Gothic Aviary, superbly fitted up with gilt carvings, and looking-glass . . . Here you may really almost forget the working-day-world amidst the murmur of sparkling fountains, the songs of gaily-plumed birds, the fragrance of exotic plants and flowers and the beautiful forms and freshness of the embellishments. (“Reopening of the Colosseum”)

The first source's name-check of Bradwell drew the publics' attention to a named individual in possession of professional credentials and further highlights the strong business and aesthetic connections between the entertainment industries of pleasure gardens and theatres.

In the opening years of the 1820s the Coburg Theatre's proscenium curtain had been replaced with a screen; audiences looked towards the stage and were confronted with their own reflection spread over sixty plates of mirrored glass. In *Illegitimate Theatre in London* Jane Moody identifies the significance of the curtain when she explains how it allowed, 'the spectators to become the subject of their own spectacle. Indeed, the Coburg's innovation marks a significant step in the transformation of the dramatic spectator into the self-conscious purchaser of cultural goods and visual pleasure' (154). Armstrong states that this heralds, 'the beginnings of an avidly scopic culture – a culture of *looking*- are marked in the Coburg curtain ("Transparency:Towards a Poetics of Glass" 125). The Coburg curtain and the Heptaplasiesoptron were both devices that were preoccupied with participatory public spectacle. They were not concerned with the traditionally passive act of looking at drama unfolding at a distance from the observer. Instead the essential element of the spectacle lay in the active involvement of the viewer who became the material out of which the entertainment was constructed. Melchior-Bonnet elaborates on this point, 'The mirror acts more or less as a theatrical stage on which each person creates himself from an imaginary projection, from social and aesthetic models and from an appearance that all reciprocally sustain each other' (174). It was now possible and desired to observe a public performance of self in non-aristocratic spaces. That Londoners were

aware of the material link between the Coburg mirror curtain and the Heptaplasiesoptron was implied by a commentator on the Vauxhall attraction whose reference to the pleasure garden arrangement as a ‘fancy reflective proscenium’ echoes contemporary descriptions of the Coburg’s spectacle’ (“The Drama and Public Amusements” 367).

Whilst the pleasure of witnessing a reflected social performance of the self in a public space of commercial entertainment links the Coburg screen with the Heptaplasiesoptron there are also some important differences between the venues. The Coburg screen attempted to produce a unified single reflection whereas the Heptaplasiesoptron intentionally presented broken and multiple representations. The success of the Coburg screen received mixed reports due to the effect of the joins between plates of glass which caused the reflections’ visual continuity to suffer. A piece in the *La Belle Assemblée*, written in the style of a letter from a Londoner to his ‘country cousin’ remarks upon this very problem:

the whole formed, not a mirror, but a multiplication-table, which moreover disjointed each and every of the objects presented to it respectively,— putting the head of one person upon the shoulders of another—transferring the plumed bonnet of a third to the bald pate of her next male neighbour— lifting the dirty apprentice out of the hack row of the pit into the dress circle—and, in fact, confounding objects, looks, and localities, in a manner amusing enough to the beholder, much more so perhaps than if it had presented a perfect picture of the scene before it. (“London letters to country cousins” 4)

The metropolitan writer’s enjoyment in witnessing visual confusion between genders and social classes suggests not anxiety about the threat of the unknown

and ever expanding urban masses, but rather a playful willingness to embrace new possibilities offered by proximity and social difference.

The unintentional by-product of the Coburg curtain was the intentional aim of the Heptaplasiesoptron which directly encouraged a playful experimentation with the multi-layered reflections. These attractions were connected to wider cultural acts of constructing and displaying the social self. As Melchoir-Bonnet explains in reference to the dandy and the mirror in general, ‘The dandy lives in front of the mirror because he monitors his appearance, cultivates his singularity, and seeks only references to himself. He never imitates anyone but rather incarnates the cult of the self, revelling in his difference’ (180). Observation of the self was a fundamental component to the Heptaplasiesoptron and Vauxhall was prime terrain for the dandy to strut his stuff. However, there is more invested in the arrangement of these mirrors than just an expression of the ‘cult of the self’.

The functionality of the Vauxhall mirrors was not equivalent to the private contemplation of one’s reflection. Rather the mirrors and the increased illumination provided a playful arena in which to negotiate the growing complexities of appearances in public. In *The Fall of Public Man* Richard Sennett discusses socio-psychological changes in public urban life between the eighteenth and nineteenth centuries. He argues that a developing preoccupation with notions of appearance came to be read as ‘personality’. Sennett saw a ‘world in which physical appearance had no certainty. That is to say, under conditions of illusion, consciously worked at, there was a more accessible truth about men and women than there was on the streets’ (176). The Heptaplasiesoptron certainly meets the definition of an ‘illusion, consciously worked at’. The reflected fragmentation and

distortion of bodies whilst pleasurable can, nonetheless, be understood as a useful exercise in acquiring new skills of visual acuity necessary for seeing oneself and others in the growing stratification of social identities. The elevated, and by comparison, somewhat restrictive illusion of self in the mirrors of the eighteenth-century rotunda had been replaced by a perceptual device that delivered copious amounts of illumination within which the eye and body could be trained to operate in a more fluid environment, learning how to accommodate and adjust to swift alterations of appearances.

There were further differences between the Coburg and Vauxhall. The two-dimensional screen of the Coburg mirror curtain and the audiences' front-facing seated position meant that participation in the spectacle was more limited than that experienced in a visit to the three-dimensional space of the Heptaplasiesoptron where individuals could move around, interact with, and observe each other and the accompanying reflections. For those reasons the space offered a more extreme experience of an immersive space that eliminated the boundary between stage, actors and audience. In the Heptaplasiesoptron everyone was effectively on stage, everyone was performing, and everyone was watching. There was no set script; instead it was a non-narrative, spontaneous and open-ended self-generating drama. Visitors would enter this space and participate in a fragmentation and multiplication of their represented selves. It was an experiential equivalent of a mirrored mobious strip, creating a loop of visual production and consumption that folded endlessly back upon itself as the visitor was both subject and object of their own performance. One can imagine that the sensation of entering the Heptaplasiesoptron would have been akin to being inside a giant

kaleidoscope re-constructed to house the human body, not just the eye.²⁵ Visitors were equivalent to the coloured patterns of the kaleidoscope. Slithers of self would have separated, multiplied and reformed in unnatural configurations. Beams of light would have shattered through the lustres of the chandeliers and bounced off as shards from the revolving mirrored pillars before hitting the surface of water droplets falling from the fountain. The Heptaplasiesoptron was a space of playful perceptual and social experimentation which appropriated, theatrically re-packaged and then sold the optical effects of contemporary scientific research.

The quality of illumination in this area of the gardens would have behaved in a very different manner to all other areas due to the specific selection and arrangement of materials. The concentration of reflective and transparent surfaces combined with the absence of darkness and opaque surfaces forced complicated trajectories of light into a seemingly endless cycle of repeating reflections. The subtle decay of light into darkness in other sections of the gardens had previously been a more dominant facet of the gardens' aesthetics. But the Heptaplasiesoptron's energetic flow of illumination halted the deterioration of light and kept it from mingling or diluting into the surrounding darkness. The Heptaplasiesoptron trapped light and denied darkness. Interventions such as these into the pre-existing balance between light and dark occurred across a range of sites within and beyond Vauxhall resulting in the most significant reduction and re-arrangement of urban darkness that Londoners had ever encountered.

²⁵ The Kaleidescope did indeed make an appearance at Vauxhall in modified format of the Kaleidescopian Refractor, presented by Herr.C.Gehricke in 1852 GFC.

Spectacles of Palpable Darkness

The performance of mass illumination, the numerous lamps, fireworks and transparent paintings were all part of Vauxhall's famous spectacle of light. But an equally crucial component to the entertainment was the role played by darkness. The contrast of a black night sky provided an essential backdrop against which intensity, colours and movement of lighting arrangements were enhanced. Further contrast in the gardens was provided by the intentional lack of lighting in the more intimate interiors of structures such as the hermitage and submarine caves. Finally, the Dark Walk provided a designated darkened route of social circulation. Without these visual and spatial forms of darkness many of Vauxhall's illuminated attractions would not have existed. However, the symbiotic relationship between aesthetics of light and dark did not remain consistent or equally balanced throughout the venue's lifespan. In this final section, the treatment of darkness will be considered in the context of how interventions from technologies, fashions, market forces and morals affected the management, meaning and experience of darkness. Darkness at Vauxhall was not merely a negative by-product of absent light, but a highly charged, intentional and active perceptual phenomenon.

The notion that the conscious handling of darkness at Vauxhall possessed positive, tangible qualities is not as far fetched as it might, at first appear. The nineteenth-century German psychologist Ewald Hering was particularly interested in the relationship between varying levels of lighting and their affect upon spatial perception. His thoughts on this correspondence, taken from "Philosophical Transactions" 1841, are worth citing at length because they demonstrate the

existence of a heightened phenomenological attentiveness to experiences of environmental darkness:

We must distinguish roomy from superficial, as well as distinctly from indistinctly bounded, sensations. The dark which with closed eyes one sees before one is, for example, a roomy sensation. We do not see a black surface like a wall in front of us, but a space filled with darkness, and even when we succeed in seeing this darkness terminated by a black wall there still remains in front of this wall the dark space. The same thing happens when we find ourselves with open eyes in an absolutely dark room. This sensation of darkness is also vaguely bounded. An example of a distinctly bounded roomy sensation is that of a clear and colored fluid seen in a glass; the yellow of the wine is seen not only on the bounding surface of the glass; the yellow sensation fills the whole interior of the glass. By day the so-called empty space between us and objects seen appears very different from what it is by night. The increasing darkness settles not only upon the things but also between us and the things, so as at last to cover them completely and fill the space alone. If I look into a dark box I find it filled with darkness, and this is seen not merely as the dark-colored sides or walls of the box. A shady corner in an otherwise well-lighted room is full of a darkness which is not only on the walls and floor but between them in the space they include. Every sensation is there where I experience it, and if I have it at once at every point of a certain roomy space, it is then a voluminous sensation. A cube of transparent green glass gives us a spatial sensation; an opaque cube painted green, on the contrary, only sensations of surface (qtd. by William James 137).²⁶

The perceived capacity of darkness to fill space producing a ‘voluminous sensation’ of blackness combined with a notion of dark depth as opposed to the ‘empty’, ‘surface’ qualities of light describes a profound experiential difference between a space encountered in daylight or darkness. Percepts such as these

²⁶ My thanks to Isobel Armstrong for drawing my attention to this section of James.

were consciously worked into features of sensory entertainment in nineteenth-century pleasure gardens where darkness was felt as much as seen. Vauxhall possessed two instances where an absence of light was intentionally moulded in and around a specific site where intimate and enclosed dimness dramatized an experience of darkness. The picturesque theme of the hermitage used an arrangement of thick foliage and faux rocks to create a dark frame at the centre of which a painted transparency glowed, and the submarine cavern (see fig. 4.6) created an underworld fantasy of deep darkness where the sun's rays had never penetrated. Rather than finding these artificially dark and theatrical structures with the help of illuminated paths, the experience was heightened by a path of darkness, the Dark Walk, which linked the areas into a trio of dark spectacles. Visitors were obliged to feel their way through this part of the garden experiencing the immediate and felt proximity of their surroundings as opposed to seeing distant vistas.

The interconnecting Dark Walk was not merely a poorly lit garden corridor through which one passed in order to reach more prominent spectacles, but was a highly popular attraction in its own right (see fig. 4.10). The walk was also known as the Druids' or Lovers' Walk and had throughout the eighteenth and early nineteenth century been an area where lamps were purposefully either few in number or entirely non-existent. The connotations triggered by the avenue's three names contributed to the mythology surrounding the walk; the obscurity of darkness, the possibility of romantic or sexual activity combined with vague associations of an ancient, exotic pagan spirituality. This atmosphere was compounded by acts of prostitution, sexual and physical violence, and pick-

pocketing which were known to occur in the area and generated a potent ambience in which visitors felt, as much as saw, dark space. As the gardens moved into the nineteenth century and lighting levels intensified, concerns about associations between darkness and immorality were more clearly voiced. Low-lit spaces of entertainment affected behaviour, interaction and the subsequent assessment of that space differently from highly lit areas. Whilst in many ways the distinction between light and dark urban spaces seems obvious and therefore not worth further comment, I would argue that it was precisely during the opening decades of the nineteenth century and in venues such as Vauxhall that these distinctions and subsequently persistent attitudes came into focus for the first time. With increased exposure to new technologies of illumination came a new and increased fascination, and anxiety, about darkness.

The Dark Walk had always had an ambiguous reputation; quiet and contemplative versus frisky and risky. For some in the eighteenth century the walk was a quieter more intimate space and provided a screen from the roaming public gaze of the hustle and bustle surrounding the brightly lit and choreographed attractions. Such a benevolent disposition about the walk was voiced by a visitor in 1762, 'This walk in the evening is dark which renders it more agreeable to those minds, who love to enjoy the full scope of the imagination, to listen to the distant music in the orchestra, and view the lamps glittering through the trees...' (qtd. in Edelstein 41-2). From this perspective the darkness encouraged a smaller and more fluid movement of bodies, rather than the regulated entertainment of the performers which attracted large crowds jostling for viewing position at set times throughout the evening. Yet that account of harmless enjoyment in the walk was

somewhat contradicted when, a year later the proprietor, Tyers, was forced to close the area in an unsuccessful effort to curb misconduct. This arrangement was met with vandalism when a group of men damaged the fence which had been erected to bar entry to the walk, presumably through their frustration at being denied entry into the dark space and all that they could enjoy within it (Scott 46-47). Such male enjoyment might have been of the type recorded in a conversation between Lord Pembroke and the author and memoirist, Jacques Casanova De Seingalt about a visit to Vauxhall in the 1760s:

I once took a violent fancy for the little hussy," said he. "It was one evening when I was at Vauxhall, and I offered her twenty guineas if she would come and take a little walk with me in a dark alley. She said she would come if I gave her the money in advance, which I was fool enough to do. She went with me, but as soon as we were alone she ran away, and I could not catch her again, though I looked for her all the evening (176).²⁷

In the nineteenth century the Dark Walk's reputation came to the attention of the Surrey magistrates who were responsible for granting Vauxhall's entertainment license and who were increasingly of the opinion that the establishment was a moral liability. In 1826 the pleasure garden managers were forced to compromise with the magistrates in order to keep their license. Out of three recommendations, that the Dark Walk be illuminated, that the firework display be brought forward from 12 o'clock to 11 o'clock, and that dancing be restricted, Frederick Gye was obliged to comply with the first two points.

For the first time in Vauxhall's long history the Dark Walk was dark no more. Criticism of the magistrates' demands and the change in the gardens' illuminated

²⁷ Fanny Burney's *Evelina* published anonymously in 1778 presents a fictionalised female perspective on the walk's dangers rather than attractions (197).

appearance was strongly voiced in the press. A writer in the December issue of the *Monthly Magazine* questioned the magistrates' belief in the moral danger of the Dark Walk:

the “morality,“ , indeed, of the “Royal Gardens” is a ticklish affair to touch upon. But I protest – what other people may have found in the “Dark-walk” I cannot say – but the most heinous sin I ever discovered about it, is that it is commonly rather more than ankle deep in water. (“Letter upon affairs in general”)

In the *London Magazine* the magistrates' ruling was referred to as a 'farce' accompanied by an extensive word for word account of the exchange between the manager and the magistrates as if it were indeed a play script. The author refers to the rulings as 'officious whimsies' which were 'cruelly oppressive in their effects' ("Diary for the Month of October" 372). An even stronger complaint was expressed in an article devoted to defects in the licensing system in the *Oriental Herald and Journal of General Literature*. According to this author the magistrates were mistakenly motivated by, 'a belief that men and women are to be governed by rules too minute and vexatious for an infant school' and concludes the article with an exasperated exclamation, 'Heaven preserve us from microscopic legislation' ("On the Licensing System" 285). The publicly debated lack of consensus over the connection between morality and illumination is evidence of a new cultural sensitivity towards illumination in the urban environment which Otter attributes to the strengthening of liberal values. But, as demonstrated by this incident, the engagement of conflicting interests in a competition over systemic versus individualistic control of light and darkness extended beyond Otter's socio-

economic parameters and encompassed an environmental aesthetic as well as administrative treatment of light.

In spite of Gye's resistance to the involuntary alterations he attempted to adapt and turn the enforced illumination into an attraction through advertising, 'All those Walks which have hitherto been only partially lighted will now form one blaze of splendour, and 36,000 more lamps than were ever used on anyone Evening, will, on this Night illumine Vauxhall' (GCVP. 67). The banishment of darkness continued into the 1830s as indicated on a poster from 1836, 'The Hermit Walk and the King's Walk – and those usually called the Dark Walks will have a new and varied style of illumination' (GFC). By the 1840s new lighting technologies such as the intensely bright electric arc lamp debuted in Vauxhall. The result was that the grounds could no longer contain the light which flooded over the perimeter and affected neighbouring districts. The *Illustrated London News* described the scene of light in 1849, 'And thousands of lamps are almost thrown into shade by the electric light which sheds its supernatural halo round the whole place, and even shoots its rays across the river' ("Vauxhall Gardens"). It is no coincidence that the brightest decade of Vauxhall's existence was also the decade in which fictional representations of the gardens' looked back nostalgically (Conlin "Vauxhall Revisited") to the pre-1826 period when visitors were at liberty to socialise in dark, as well as light, areas of the garden.

Samuel Beazley's 1842 farce, *You know what; A farcical comedy in two Acts*, used the walk as an environmental catalyst to stimulate and support the protagonists' actions of illicit assignation. That same year the historical novelist, William Harrison Ainsworth published *The Miser's Daughter*. Set in the middle of

the eighteenth century the novel participated in a Victorian nostalgia for Vauxhall whilst simultaneously underscoring a contemporary attraction and repulsion towards darkness. On a visit to Vauxhall, Hilda, the miser's daughter, is tricked by Beau Villiers 'the leader of fashion' (30) to walk with him in the Dark Walk, whereupon she is accosted by Villiers (168). However, fictional accounts were not restricted to representations of male sexually aggressive opportunism in the Dark Walk. Five years after *The Miser's Daughter*, in Thackeray's *Vanity Fair*, Becky Sharp lures Jos Sedley away from the bright lights and observation of the main party in an unsuccessful attempt to draw a proposal of marriage from him (87-94). The Vauxhall Dark Walk was still part of London's fictionalized landscape in the penultimate decade of the century via Mary Braddon's representation of the space as a means of measuring morality when a female character in *Mohawks* stated that 'a woman who saunters in a dark walk at midnight, hanging on the arm of a former lover...' leaving the implication unsaid but nevertheless clear (26). A pre-occupation with the Dark Walk in fiction that focused on the behaviour of London's fashionable socialites points to the widespread cultural currency of Vauxhall in the reading publics' imagination. But more than that, it also reveals a fascination with illumination's contribution in the effort to successfully negotiate the tricky coupling of experiencing pleasure whilst also being morally respectable. The following press clipping from 1841 captures this complex combination of play and propriety:

The Dark Walk of that enchanting portion of *terra firma*, Vauxhall Gardens, has always been considered a principal feature in the attractions of the place. Whether people are of the opinion that greater freedom of conversation may therein be indulged in, or that, with the purest notions in your head, you are less open to observation, or that (as the Moon is the

only looker-on, in such a retreat) “the devil’s in the moon for mischeif or what not, it is not for us to determine: but we should say, very few persons ambulate this quiet spot, without some portion of all such crude ideas running in their heads. Undoubtedly, it is the place of all others to go through a rehearsal of that pretty little street ballad, “Meet me by moonlight – alone” but at the same time that “alone” depends very much on the individual who constitutes it. To our peculiar way of thinking, we should at once say, let the walk be as dark as you please, but your partner in it, “fair as the first that fell of womankind!” (VGA 5)

None of these texts were alarmist or extreme, and when issues of moral judgment occurred a lightness of touch was achieved through strategies of humour and satire. This playful approach to the delights and dangers of Vauxhall ran counter to and were perhaps a reaction against legislators’ repeated attempts to interfere with Vauxhall’s illuminations on grounds that they were a nuisance and encouraged reprehensible acts.

When, in the 1830s Vauxhall’s attendance figures began to drop, the manager responded by opening the venue during daylight hours. Had Gye read Patmore’s comment in his publication *The Mirror of the Months* he might have reconsidered the wisdom of this venture, for Patmore observed in 1826 that, ‘Vauxhall Gardens...Seen in the darkness of the noonday, as one passes by them on the top of the Portsmouth coach they cut a sorry figure enough. But beneath the full meridian of mid-night, what is like then, except some parts of the Arabian Night’s Entertainments’ (143). Dickens was in agreement with Patmore when he made a daytime visit to the gardens ten years later in 1836:

There was a time when if a man ventured to wonder how Vauxhall-gardens would look by day, he was hailed with a shout of derision at the absurdity of the idea. Vauxhall by daylight! A porter-pot without porter, the House of

Commons without the Speaker, a gas-lamp without the gas - pooh, nonsense, the thing was not to be thought of....

In an evil hour, the proprietors of Vauxhall-gardens took to opening them by day. We regretted this, as rudely and harshly disturbing that veil of mystery which had hung about the property for many years, and which none but the noonday sun, and the late Mr. Simpson, had ever penetrated.

We walked about, and met with a disappointment at every turn; our favourite views were mere patches of paint; the fountain that had sparkled so showily by lamp-light, presented very much the appearance of a water-pipe that had burst; all the ornaments were dingy, and all the walks gloomy. There was a spectral attempt at rope-dancing in the little open theatre. The sun shone upon the spangled dresses of the performers, and their evolutions were about as inspiriting and appropriate as a country-dance in a family vault. (147)

Here Dickens has shown us why darkness was so necessary for maintaining the magical atmosphere. It provided the backdrop which supported and offset the spectacular illuminations and functioned as a partnership in which darkness concealed the traces of artifice and light revealed manufactured surfaces of enchantment. A disinclination for the aesthetic effects of full sunlight can be traced back to early discourses on the picturesque when qualities of lighting became the focus of a new heightened perceptual attention. In Price's 1796 *An Essay on the Picturesque* he judges that an object seen,

by twilight, is often beautiful as a picture and would appear highly so if exactly represented on the canvas; but in full daylight the sun, as it were, decompounds what been so happily mixed together, and separates a striking whole into detached unimpressive parts. (152)

In the first decade of the nineteenth century, with a sensitivity for the experiential qualities of illumination, Goethe emphasized the creative importance of darkness when he wrote 'in darkness we can, by an effort of imagination, call up the

brightest images' (xxxix). In sunlight Vauxhall's bright images faded and the spell of enchantment was broken.

As the experience of intimate darkness at Vauxhall became rarer and rarer during the final years of the gardens' evening openings, views of the stars and moon in the distant night sky simultaneously became fainter and fainter. If one wanted to see the stars from Vauxhall a trip in a hot air balloon was now the best vantage point. In 1846 the journalist, Albert Smith embarked upon such a journey and recorded his airborne impressions of the metropolis at night:

I can compare it to nothing else than floating over a dark blue and boundless sea, spangled with hundreds of thousands of stars. These stars were the lamps.

The fireworks had commenced at Vauxhall, and we saw the blaze of light about the Gardens very distinctly, as well as the explosions of the rockets, and a flash of lightning now and then illuminated the entire panorama, but too transitorily to catch any of its features. Above us the sky was deeply blue, studded with innumerable stars; in fact above and below and around, we appeared sailing through a galaxy of twinkling light, incalculable and interminable. The impression on my mind in these few minutes will never be effaced. (84)

From his privileged mid-air position Albert Smith looked down at the artificial lighting spectacle of Vauxhall and the city beyond, as well as looking above to the natural stellar display. At the same time that Vauxhall's powerful illuminations weakened a nuanced view of the night sky, an artificial replacement was offered through the invention of the planetarium (Jay 123). Night time balloon ascents became increasingly popular in the 1850s and 1860s as more and more of London succumbed to gas illumination (Nead 85).

Industry, manufacturing and the commodification of culture gathered momentum in the late eighteenth century stimulating the development of newer and larger cities populated by ever greater numbers of city dwellers. Incorporated within this complex force of urbanization was the desire to allocate a discrete section of cultivated green space for leisure use. Inhabitants of the modern urban environment created and were confronted with new materials, concepts, values, social structures and spatio-temporal configurations. In *The Aesthetics of Human Environments* Arnold Berleant and Allen Carlson make the point that:

The experience of the environment as the locus of an inclusive perceptual system includes factors of space, mass, volume, time, movement, color, light, smell, sounds, tactility, kinaesthesia, pattern, order, information and meaning. Consequently, the aesthetic experience of the environment is not exclusively visual but actively involves all the sensory and cognitive modalities synaesthetically, engaging the participant bodily in intense awareness. It is important to remember that aesthetics, historically and etymologically, involves the perception by the senses in general. (16)

Therefore, aspects of the perceptual and conceptual experiences of urbanism were accommodated by commercial pleasure gardens which offered both a contrast from daily city life and allowed an alternative exploration of these new cultural configurations of the senses. These playgrounds of modernity proved to be popular activities and profitable businesses which formed a network of venues that crisscrossed national and international borders. In Tuan's terms, the bond between people and pleasure gardens operated at a level of cultural topophilia and developed from an elite eighteenth-century activity into a pastime of widespread popularity in the nineteenth century. Of central importance to all pleasure gardens were qualities of light and darkness which affected the manner in which people

understood themselves, each other and their environment. In these spaces perceptual consciousness was altered by the transformation of raw, functional light into an aesthetic manipulation of artificial illumination. The enterprises functioned in a dual process of structured commercial entertainment combined with an opportunity for individual embodied experimentation. At the centre of this network was Vauxhall, which shone out as the brand leader in the business of pleasure where the dramatic dynamic between illumination and its cultural significance was played out night after night. Vauxhall was a cultural mechanism through which varying qualities and quantities of both light and dark simultaneously attracted and repelled sections of society who were engaged in a vigorous struggle to shape and control the formation of modern perceptual consciousness.

Conclusion

This thesis has been concerned with an episode of perceptual history in which cultural practices of illumination were at the forefront in the formation of embodied consciousness. Yet in spite of the sensory nature of this subject much of the material under discussion cannot now be directly seen or touched. Examples of domestic transparent paintings are rare. Vauxhall Pleasure Gardens do not exist. Spaces are no longer artificially lit by oil and gas light. The daylight now flowing through top-lit buildings does not contain the same nineteenth-century air-borne particles of industrial labour. And our experience of the urban night sky belongs to the twenty-first century. I have argued that the intrinsically evanescent nature of light and the circumstantially ephemeral nature of the historical material under discussion have, nonetheless, left palpable traces which are testament to the cultural value of light during this period.

If time and space had allowed there is one further case study that should be added to this perceptual history of lighting--illuminated street entertainments. At the start of chapter one I briefly mentioned the presence of transparent paintings at the windows of private houses and upon the façades of public buildings during civic celebrations. I referred to this practice to indicate that domestic transparent painting belonged to a general aesthetic enthusiasm for illuminated translucency. But the use of decorative lighting, in the form of transparencies, gas flares, oil lamps and candle light, to celebrate and promote political, royal and civic interests deserves to be studied in its own right.

My future research in this area will pursue three claims. Firstly, that the practice of street illuminations, which dates back to at least the seventeenth century, became more self-consciously aesthetic towards the end of the eighteenth century and peaked in popularity during the first half of the nineteenth century. Secondly, that previous scholarship on urban history has simplified the significance of illuminations, interpreting them as only political acts, thereby failing to consider the significance of why the city was transformed into a site of aesthetic experience. Historians such as Mark Harrison, Nicholas Rogers and Robert Shoemaker all suggest that during illuminated events inhabitants were forced to publicly and non-verbally express a political opinion. According to their interpretation there was no politically neutral position---a display of light was read as a gesture of support, an abstention from illumination was taken as an oppositional declaration. Inhabitants who failed to illuminate their houses ran the risk of inciting defiant acts of aggression and losing their windows. Thirdly, that by the 1830s violence and aesthetic extravagance associated with street illuminations were no longer compatible with new pressures of taste and morality which forced a readjustment in how the urban environment was perceived. An article in the *Examiner* from June 1832 entitled "How to celebrate a Reform Act" articulated a need for a new mode of public expression and a backlash against the traditional spectacle of street lights. It stated that, 'In no circumstance can illumination express public sense, because many are compelled by the fear of damage to their houses'. Tensions around links between effects of light and notions of sense emerged as widespread concern. That same month the *Liverpool Mercury* described illuminations as a 'senseless mode of display' which is now 'out of fashion...in Nottingham, Sheffield and Derby,

and other large towns'. The author goes on to maintain that 'the more people become enlightened the less popular will this absurd custom of sticking candles in windows become.' ("Tallow Illumination and Editorial Illuminators"). The medium of light no longer equalled 'enlightenment'. In fact, as a further article from the *Examiner* makes clear, there emerged a new and unequivocal resistance to this practice of illumination.

The illuminations are postponed, we hope *sine die*. This is an expression of triumph which we should leave to our enemies. It is appropriate to royal birthdays, or military butcheries, and such trumpery or questionable matters; but it is unworthy of the people. Let them reserve the money that would be wasted in stinking lamps, to give effect to the law they have obtained. Let them signalize their triumph not in a glare of light for the gaze of idlers, but in the return of good men at the approaching election. Illuminations should be left to Kings, Conquerors, and vulgar celebrations. ("Illuminations" 1832) Concepts of political enfranchisement, intellectual sense and charitable concerns were weighed against percepts of material waste, butchery, distaste for the 'stink' of lamps, vulgar rituals and the seductive appeal of gazing at glaring light. Those who indulged in this practice were categorized as weak, lazy and unwilling to commit to the project of social progression. Illuminated events did still occur, but with less frequency and spontaneity and reports of spectacles were more inclined to offer criticisms as well as praise. For example, after the celebration of Queen Victoria's coronation in 1837 there were comments in the *Mirror of Literature, Amusement and Instruction* about too much light, 'In the narrow part of the Strand the glare was really oppressive' (328 "The Illuminations"). The trajectory of these activities and cultural opinion follows a similar arc to the patterns analysed in my case studies; a rapid increase in the desirability of transparent, glittering and

reflective lighting effects in the early decades of the century, followed by an aesthetic crisis as the century's half-way point approached.

Of course, while my study into light stops in the 1840s, the story of light in culture is an ongoing narrative. The increasing standardization of gas lighting and the introduction of electric lighting in the penultimate decade of the nineteenth century mark a new perceptual epoch of illumination. Gooday's *Domesticating Electricity: Technology, Uncertainty and Gender, 1880-1914* sets out a socio-cultural history of electrical heating and lighting technologies in which he investigates how notions of safety, identity, and experiences of dwelling were radically altered by electricity. Interestingly, Gooday revises the historiography of electricity by problematizing the teleology of electrification. He argues that the transition from gas to electricity was not an inevitable move towards modernity but, in fact, involved strategic efforts from the nascent electricity industry to tame the power of its product for a cautious domestic market who were comfortable with the established and familiar resource of gas (9). For this transition to be successful electricity had to be 'domesticated', which Gooday interprets as an 'open-ended process of adapting and disciplining technologies to discretionary needs of users, or rejecting them if they cannot satisfactorily be made part of established routines and practices' (26).

In spite of Gooday's persuasive re-balancing of power between the commercial business of electricity and its take-up within the private household, I suspect that there was not an electrical equivalent to the aesthetic appropriation of candle or lamp light as seen in the early nineteenth-century case studies I have explored. The combination of three technological details particularly contributed to

a loss of individual creative interaction with the new light. Unlike the free-standing mobility of candles and oil lamps, the networked nature of electricity, with its designated location of power sockets, restricted an inhabitant's aesthetic choices about illumination; light was to be forever tethered to the infrastructure of the house and the power grid beyond. While this same limitation was also true for gas lighting, there was a distinct difference in the sudden on-off behaviour of electricity's switch from dark to light, as opposed to the gas tap's gradual turn and dimming of the flame. Finally, electricity produced a consistent intensity of light which was not susceptible to movements of air and did not sputter or flicker. There was less personal intervention, less contingency and less playfulness involved in late nineteenth-century domestic lighting practices. Gaston Bachelard suggests that these developments occurred in 'an age of administered light' and goes on to conclude that electrical lighting rendered us 'the mechanical subject of a mechanical gesture' (64).

Through my case studies I have argued that prior to the comprehensive systematization of lighting, and thus perhaps also the systematization of perception, there existed in large urban areas such as London multiple opportunities for thinking and feeling through cultural practices of illumination. In so doing my thesis has offered an intervention into the dominant scholarly narrative of the nineteenth century which traditionally reads modernity as synonymous with the formation of a spectacular visuality and the fragmentation of subjectivity. This tendency has led scholars to focus solely upon the importance of 'the eye' during the nineteenth century and has resulted in a blindness to the fact that sight functions as an embodied sense in partnership with the whole sensorium, rather

than as a dislocated and superior mode of apprehension. By contrast my work has examined how the practical *and* metaphorical use of natural *and* artificial light triggered new experiences and interpretations of what it meant to live in the modern, industrial world—the pre-eminent example of this world being London. My approach has integrated rather than divided our historical understanding of the senses in order to recuperate the synchronicity of embodied conscious experience. Other histories have constructed a causal connection between industrialisation, capitalisation and the fragmentation of society into distinct categories of spectator / spectacle, public / private, elite / popular. Distinctively I have shown that lived experience in London did not fit so neatly into these slots, that subjectivity was not so defined, and that, crucially, there was a higher degree of flexibility in the relationship between self and society during this decisive period of modern history. I have argued that cultural practices of illumination acted as a mediating and formative catalyst in this dynamic quality of flexibility and agency. In particular I have stressed the connections between a new and fashionable aesthetic of light and the formation of gendered and class identities. These cultural and individual sensitivities towards the medium of light produced a close and embodied connection between light and subjectivity. So intimate was this connection that, for a period of time between 1780 and 1840, light was subjectivity and subjectivity was light.