

The Architecture of Transit: Photographing Incidents of Sublimity in the Landscapes of Motorway Architecture between the Alps and Naples

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for Arlo Jack Barr Morgenroth

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Abstract

The aesthetics of motorway architecture has not received attention within theoretical photographic discourse and has never been the subject of an academic photographic research project. This project begins from the understanding of the motorway as one continuous piece of architecture that crosses international boundaries on its route across Europe – an architecture so large that it cannot be perceived in its entirety. As a research-by-practice PhD, photography is used to identify and record incidents of the sublime in the route of the motorway. The photographs are produced with a large field study from the Swiss Alps to Naples, where numerous complex topographical and spatial conditions are found. This results in incidents of the sublime within its architecture when the motorway is forced to negotiate these conditions during its route. The research domain was chosen for its significance within the history of art and literature in European cultural history. Travelling in these regions was and is strongly related to the development of cultural concepts of the sublime.

The questions that this research investigates are:

Is it possible to make a depiction of architectural, spatial, topographical factors combined in a sublime incident?

Can a methodology be defined to photograph these structures?

How can photographs be made of large-scale architecture that cannot be seen or experienced in their entirety?

The meaning of the term sublime has become diluted in contemporary usage, often being used inaccurately in description of something exquisite or delightful. This project revisits 18th-century formulations of this aesthetic categorisation, alongside historical travel literature, representations of landscape in painting and photography and contemporary architectural and photographic discourses. These references enable a thorough understanding of principles of aesthetic composition, resulting in the creation of a new understanding of the sublime and methodology for photographing large-scale motorway architecture.

Employing a photographic aesthetic that embraces representation and post-production enhancement of Fine Art practice, the project culminates in the production of 29 photographs that form a narrative series exploring incidents of the sublime within motorway architecture between the Alps and Naples.

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Memory Stick containing final photographic series in leporello format

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Fig.1.
E80 Autostrade. Genova, Italy 2007
Photo: Sue Barr



Chapter 1. Introduction

The aesthetics of motorways have generally been ignored as a subject for any kind of academic, cultural or artistic investigation. Along with roads, they are most frequently discussed when debating environmental issues. It is only within engineering literature that they are more often discussed, although this is a very specific and specialised discourse, available and of interest to, a limited audience. Examples of this include *The Motorway Achievement: Building the Network in Southern and Eastern England* by Peter Baldwin,¹ or *Highway Engineering* by Rogers and Enright.²

Occasional reference to motorways can be found within monographs that explore road culture, Americana and Route 66 or Japanese car culture, as in *Roadside Japan* by Kyoichi Tsuzuki.³ Explorations of road-related architecture and of the motorway service station are also available, particularly with reference to British and Italian roads but these are normally limited to the genre of coffee table books; see *A272, An Ode to a Road* by Pieter Boogaart.⁴ Recent contemporary art-photography has seen artists including David Maisel and Michael Bright explore hyper-urbanism, dystopian images of alienating cityscapes and occasionally of roads and motorways; and the photographer Hans Christian Schink produced a monograph on new German road development. None have addressed the aesthetics of these architectures. With the exception of *The World Beyond the Windshield* by Mauch and Zeller⁵ and Thomas Zeller's *Driving Germany, The Landscape of the German Autobahn 1930–1970*, serious academic or artistic attention has not been given to the motorway as a subject.⁶

My interest in motorways began in response to a casual snapshot photograph I made while travelling through northern Italy (fig. 1). I was driving on a small road, running below the E80 Autostrade near Genova, and from this position I was afforded an extraordinary view of the Autostrade, suspended high above on concrete pilotis, striding across the Italian landscape. I was amazed by both its enormity and its pragmatism as it traversed the steep mountainous landscape; its pilotis landing delicately between small farmhouses before disappearing into tunnels where the topography was too steep to situate pilotis.

I realised then that although the motorway I was observing might temporarily disappear into a tunnel, it would continue its route through Italy eventually ending (or beginning) in Turkey. Analogous to a concrete ribbon unfurled on the landscape, this motorway could therefore be considered as a type of architectural megastructure, whose enormity of scale prevented

comprehension from a single viewpoint. The megastructure within architectural discourse was a concept that developed in the 1960s and was explored most famously by avant-garde groups including Archigram and Superstudio, with Reyner Banham defining the Bonaventure Hotel in Montreal as a megastructure in his 1976 book, *Megastructures: Urban Futures of a Recent Past*.⁷

This original encounter with the Italian motorway near Genova reminded me of the vast landscape projects by Christo and Jeanne Claude; in particular, the narratives their projects suggest and the impossibility of perceiving them in their entirety. For example, in *Running Fence 1972–76*,⁸ their installation was 5.5 metres high and 39 kilometres long, meaning it could only ever be photographed as a selected view. Even when photographed from the air it was impossible to view the whole of the installation at any one time (fig.2)

The initiation of this research project then was to investigate an architecture that we are aware of but that is rendered invisible through the difficulty of its entire comprehension and the lack of academic discussion surrounding it. In this project I am using the concept of the architectural megastructure in relation to motorways due to their enormity of size and unity of design. My research interest is two-fold; firstly, in the aesthetics of the motorway architecture itself, in relation to it being an ignored architectural typology and, secondly, how it is possible to create a methodology for photographing such architectures. I am interested to explore how at a very specific point within its route, the four corners of the photographic frame can compose a photograph that successfully represents the aesthetic and experiential qualities of the motorway's architecture.

Within this research I am defining the motorway as architecture as much as it is also engineering. I acknowledge that this may be an arguable or contentious definition, but this project is investigating the aesthetic and experiential qualities of the motorway. The definition must include then that of architecture, with its implicit relationship to design, rather than solely defining motorways as engineering, which is more applicable to science and infrastructural discussions. Motorways are designed by both these specific professions, so they are simultaneously both architecture and engineering.

This project seeks to address this gap in knowledge of the aesthetics and methodology for photographing motorways, returning to Italy, where the motorway originated, and into Switzerland whose mountainous landscape has produced many challenging topographies for the motorway to negotiate. The research has culminated in the production of a series of precisely located and composed photographs that investigate the aesthetics and contextual landscapes of motorway architecture between the Swiss Alps and Naples in southern Italy.

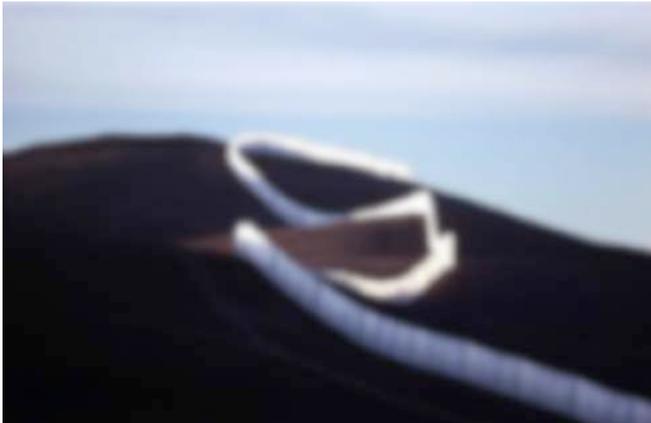


Fig.2.
Running Fence.
Christo and Jeanne-Claude. 1972-76
Photo: Wolfgang Volz

IMAGE REDACTED FOR COPYRIGHT REASONS

The research undertaken during the project has returned to the original 18th-century definition of the sublime to enable the creation of a methodology for photographing such large-scale pieces of architecture within this vast geographical area and for identifying precise locations from which to make the photograph within the field. This is a wide yet specific geographical area containing a variety of differing topographies and urban conditions and corresponds to the routes taken by 17th- and 18th-century tourists undertaking the Grand Tour in search of a real-life experience of the sublime and arcadian landscapes as depicted by painters such as Claude, Turner and de Louthembourg. The methodology the project has created is in response to the historical understanding of the term sublime and how this can be used as identify precise locations in which to make photographs. The making of the photograph is the evidence of a sublime incident within the architecture, and is defined by the understanding of factors such as scale and proximity at specific places within the route of the motorway architecture.

I have chosen to use the British term 'motorway' for consistency throughout this thesis, although within the project's field of study the accurate designations for this type of road are *Autobahn*, *Autoroute* and *Autostrade*. The Oxford English Dictionary defines motorways as: 'a dual carriageway having two (or usually more) lanes in each direction, designed for use by fast, long distances traffic.'⁹ This could also include dual carriageways; therefore, I have modified the definition by reducing it to include non-pedestrian motor roads, with limited points of entry and exit, that are marked by both European and country-specific classification numbers. It is necessary to define the term 'motorway' precisely because working within such a large geographical area, which itself contains a multiplicity of differing road types, could have quickly made this research project unmanageable. Limiting the research and photographs produced strictly to motorways has no doubt meant the exclusion of some potential photographic locations that could be found on other types of roads, but for this project to succeed in being the first PhD research of this type of architecture, it has been necessary to impose limits and parameters to the research.

Desk-based research and onsite fieldwork were undertaken to establish a field of study, identify pertinent research questions and establish a methodology for the production of the final photographic series. The project has been undertaken using a Silvestri Field (pancake) camera with a Phase One digital back. This camera was chosen because of its suitability for photographing architecture and its compactness, useful for photographing in more difficult to access locations. The camera has a large ground-glass viewing screen that was important for detailed scrutiny of composition and the camera's inherent slowness of use were features I wanted to explore during the photographic compositional process. The choice to make the photographs digitally rather than with analogue film was also an important decision because I

was interested in the possibility of using digital technology to enhance the photographs in postproduction, to accentuate, if necessary the *roadness* of the photographs. I was also interested in exploring within the idea of digital as a relatively new medium that was too often seen as simply a replacement for analogue film photography, rather than a new form of expression.

This thesis is divided into seven chapters. In Chapter 2, Literature Review, I discuss the books and exhibitions that I have consulted during this research project. As a PhD-by-practice, it was necessary to consult a wide range of artists' practice and exhibitions that contained themes pertinent to this project. The Literature Review also discusses both historical and current aesthetic practices that are relevant to consider for this research project. Chapter 3 explores the field of study for this research project and the decisions made to define and contain this wide geographical area, and it also discusses the history of the Grand Tour in relation to the field of study. In Chapter 4, I describe the methodology employed and research undertaken for this project. The research involved consultation with diverse sources, including historical landscape paintings and photographs, topographical maps, travel literature and aesthetic discourses and gallery and museum exhibitions.

The complicated relationship between motorway architecture and the sublime as an aesthetic classification is explored in Chapter 5. This chapter also discusses the causes of the sublime and how these are manifest and generate locations in which to make photographs, rejecting the traditional aerial viewpoint of engineering photography for images of motorways. The chapter also discusses how these specific incidents and locations and resulting photographs create the new methodology for photographing motorways. The culmination of this research project into a final series of photographs is outlined in Chapter 6. Here I discuss the decisions made regarding both the choice of photographs and method of display. This thesis concludes in Chapter 7 where I evaluate the research project's aim of developing a new methodology for photographing incidents of the sublime within motorway architecture.

1. Baldwin, P. (2007) *The Motorway Achievement: Building the Network in Southern and Eastern England*, Chichester: Phillimore & Co Ltd
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8. *Running Fence 1972–6*. <http://christojeanneclaude.net/projects/running-fence>
9. Oxford English Dictionary. www.oed.com (accessed January 2017)

Chapter 2. Literature Review

Although based in the Architecture department at the RCA, the interdisciplinary nature of this PhD project necessitated reference to a diverse range of research materials. This literature review introduces the various art, photography, architectural, literature and aesthetic discourses that this project has addressed, alongside discussion of pertinent exhibitions and artists' practice.

I chose to begin my research by refamiliarising myself with the history and traditions of landscape representations within art and architecture in an attempt to understand how other artistic disciplines explore landscape representation. I was searching for ideas about how to interpret the large-scale landscapes that motorways inhabited and in turn translate this understanding into a suitable methodology for the production of photographs of motorways within these landscapes. I wanted to relook at historical landscape representations, in art that was made pre-photography, to free myself from the conventions and history of photographic practice I was extremely familiar with. It was my aim to start with a clean slate intellectually, without the bias and prejudices of my photographic knowledge, and to rebuild my knowledge of landscape imagery and traditions by revisiting art that I was only faintly familiar with from art history classes at college.¹

I knew that a key factor within this research project was the issue of scale – the enormous size of the motorway architectures and how that could be translated and composed into a photograph. I was searching for a way to start the research of large-scale motorway architectures in the landscape but unsure how or where to begin, I read the *Pleasure of Ruins* by Rose Macaulay,² which includes photographs by Roloff Beny. Albeit nostalgic, Macaulay's depictions of ruins provided a useful place in which to start because the monolithic scale of the motorways was comparable to the ruins the book illustrated. The motorways often themselves had a ruinous nature, especially within the motorways of southern Italy that were startling in their decrepit state.

The photographs of ruins and temples from across the world were evocative and poetic, and could not in any way be described as neutral. They emanated character and even when they were illustrating details of a ruin, as in the opening page of the book, conveyed a greater sense of the architecture than the detail itself. I found this book a useful starting point for my research because of the evocative nature of the photographs; the idea that the photographic

image did not have to be a neutral representation and could instead convey an attitude and character.

The research and readings throughout this project though were generally problematic due to a lack of discussion surrounding the aesthetics of motorways. Therefore I took a similar approach here to the artistic practice; I read widely around landscape and art theory, following the intellectual leads particular essays offered in the reference of comparable and contrasting texts. This research led me to works discussing the historical classifications of the picturesque and the beautiful and eventually this wandering brought me to the aesthetic theory of the sublime. At first consideration this has little obvious connection to motorway architecture but became the most important discovery I made during the entire project.

My readings included William Hogarth's *Analysis of Beauty*,³ where he defines and theorises the six principles that constitute beauty and Immanuel Kant's *Observations on the Feeling of the Beautiful and Sublime*,⁴ in which he discusses the attributes of beauty and sublimity in man, objects and in national characteristics. Recurrent within these 18th-century treatises are the attempts to precisely define and order aesthetic categorisations and this in turn led me to discover Edmund Burke's *A Philosophical Enquiry into the Sublime and the Beautiful*,⁵ which was the most significant and influential text for this research.

Burke's comprehensive detailing of causes of the sublime provided a turning point for the creation of the methodology. Published in 1757, before Kant's *Observations on the Feeling of the Beautiful and Sublime*, Edmund Burke's *Enquiry* begins with an introductory essay on Taste and is then divided into five sections with numerous smaller subsections, each examining the minutiae of various causes, effects and emotional responses to sublimity and also beauty. Of the various sections of the book, Part II was the most important and useful for this research project, including its discussions on terror, obscurity, vastness, magnitude in building, difficulty, light, sound and loudness. Burke's discussion of these causes of the sublime and his attempts to define precisely how vastness, for example, triggers an instant experience of the sublime, became a tool to use to examine motorway architectures. Using his precise definitions and categorisations, I was able to both identify and test whether the combination of motorway architecture and landscape condition that I was investigating was sublime or not.

The relevance of Burke's discussions to this project can be seen in the photograph *Via Domenica di Roberto, Naples* (fig.3). The site contained areas of extreme light and dark shadows. By using Burke's definition of light – 'A quick transition from light to darkness, or from darkness to light, has yet a greater effect. But darkness is more productive of sublime than light'⁶ – I was able to identify precisely where it was necessary to position the camera to

Fig.3.
Via Domenica di Roberto. Naples, Italy 2012
Photo: Sue Barr



compose the photograph, which was then able to illustrate the extremes of light and shade, the sublime instance. Prior to reading Burke, I had been exploring how it was possible to develop an appropriate methodology with which to identify where and how to make photographs within the various sites I was researching. His detailed discussion of conditions including infinity and astonishment were then included among the factors I used for interpreting the vast motorway landscapes I was researching. Once the sublime became a central focus of my research, I found more contemporary philosophical essays around the sublime and aesthetics useful, including *The Sublime: From Antiquity to the Present* by Timothy M. Costelloe⁷ and *The Sublime (Documents of Contemporary Art)*, edited by Simon Morley.⁸ These books strengthened my understanding of the sublime, with *The German Aesthetic Tradition* by Kai Hammermeister⁹ being particularly invaluable for its clear and thorough explanation of the differing strands of German aesthetic theory and how they contributed to the establishment of the sublime aesthetic.

Concurrent with reading these aesthetic discourses, I familiarised myself with the cultural climate of this period and I read travel literature, and a number of historical novels including *The Italian* by Ann Radcliffe.¹⁰ Although Radcliffe's novel is a gothic romance, its descriptions of Alpine landscapes and even its hyperbolic language aided understanding the general 18th-century attitude to the sublime and the extreme response these landscapes inspired in readers, 'with the vast chain of mountains, which seemed to form an insurmountable rampart to the rich landscape at their feet. Their towering and fantastic summits, crowding together into dusky air, like flames tapering to a point'.¹¹ This quotation is a typical example of Radcliffe's description of alpine landscapes and illustrates the dramatic responses these books and also paintings generated for contemporary audiences.

I read a selection of travel literature and Grand Tour diaries, including Goethe's *Italian Journey*,¹² *Pictures from Italy* by Charles Dickens,¹³ *History of a Six Weeks' Tour*, by Mary and Percy Bysshe Shelley.¹⁴ Unlike the historical novels, which provided a general cultural atmosphere from the period, these accounts of European travels were particularly interesting in their descriptions of Italy, the difficulties of travel and descriptions of extreme mountainous areas in the period. *Italy and the Grand Tour* by Jeremy Black¹⁵ and *Switzerland and the English* by Arnold Lunn¹⁶ provided greater understanding of the Grand Tour history and the culture of mountain tourism that developed during this period. They were useful in that they generally endorsed the ideas about the 18th-century fascination with mountains and their development into a destination rather than hindrance during the Grand Tour.

These readings provided a historical context to my readings on landscape classifications and sublime aesthetics. They also helped to develop a new framework of reference to support and inspire my project, where the same dramatic and sublime landscapes would now contain the motorway architectures I was investigating. I undertook a wide range of reading within the landscape geography category, including *Landscape and Power*, edited by W.J.T. Mitchell,¹⁷ *The Iconography of Landscape*, edited by the geographers Cosgrove and Daniels¹⁸ and *The Language of Landscape* by Anne Whiston Spirin.¹⁹ These collections of essays concerned different aspects of landscape geography, history and politics and were interesting to read but ultimately offered little that I could refer, however tangentially, to my research subject.

I found that more general discussions of art history and painting analysis, including Malcolm Andrews' *Landscape and Western Art*²⁰ and Michael Baxandall's *Patterns of Intention*²¹ and *Painting and Experience in 15th Century Italy*²² were useful for their explanations of aesthetic construction principles of imagery and compositional devices. I was seeking to discover if the compositional theories of painting these books discussed could be useful in the photographic compositions I would be making of landscapes. My research in art history and landscape painting led to consulting a number of artists' monographs including *Turner Inspired: In the Light of Claude*.²³ This was the catalogue for a National Gallery exhibition and it compared the work of the two painters but more specifically Claude's influence on Turner. Again I was searching for understandings of landscape representation and construction and, in reference to the exhibition, how Turner himself was inspired by and appropriated Claude's aesthetics and themes within his work.

During this research project I visited a large number of exhibitions by a wide range of both contemporary and historical artists and photographers exploring ideas around landscape representation. I did this because I wanted to see how particular artists had explored representations of landscape in their work and how, if possible, I could learn from their practice to inform my research. At the start of the research I visited mainly historical landscape exhibitions: *Turner and the Masters*,²⁴ *Art and the Sublime*,²⁵ *Forests, Rocks, Torrents. Norwegian and Swiss Landscapes from the Lunde Collection*²⁶ and *John Martin, Apocalypse*²⁷ were inspirational for both their representations and constructions of landscape. The *John Martin's Apocalypse* exhibition in particular was interesting for how an exhibition could create an extreme experience for the audience. Three of Martin's paintings of biblical and apocalyptic destruction were presented as a theatrical installation, complete with a sound and light show to dramatise his extreme vision for the audience. This installation explored the 19th-century artist's obsession with heaven and hell and linked appropriately to my continuing research into the sublime. The National Gallery exhibition *Seduced by Art*²⁸ could have been useful for its examination of photography's close relationship to painting but it simply paired photographs

to similar paintings. It equated images of similar themes together, including subject matter and point of view, without any further examination than the aesthetics of the images.

Even with exhibitions that failed to further my work, it was important within this research to look at works of art in reality, wherever possible. The materiality of the painting or even the photograph on display was much more influential and informative than an image on screen or in a book and it was for this reason too that I visited many exhibitions during this research project. It was important to understand and experience the scale and size of the particular painting or photograph. With the early landscape paintings, and also in the contemporary photographs I looked at, the size of image was an important factor to experience. Both of these genres of art are large in size, often over 1 metre in scale. This issue of scale and the implicit viewing distance for the audience was something that is impossible to experience in a book or reproduction of the artwork. However well printed the artist's monograph, it cannot not replicate the experience of the artwork in reality.

An exhibition of work by the 19th-century French photographer Felix Thiollier at the Musée d'Orsay in Paris²⁹ was a useful discovery for his combination of the sublime aesthetic in his depiction of industrial landscapes. His black and white photographs transcended the grim realities of the landscapes and conditions he was depicting to compose photographs of incredible beauty. The online archive of exhibitions at the Italian Museum of Contemporary Photography (MUOFO) was an invaluable resource for reference to images of the contemporary Italian city. In particular, their exhibition *Ieri, Oggi, Milano [Yesterday, Today, Milan]*,³⁰ of images of Milan by a wide selection of international photographers, explored differing representations of Italian urbanism.

I also visited a number of architectural exhibitions, of which Jürg Conzett's *Landscape and Structures*³¹ at the SAM gallery in Basel should have been the most useful. The exhibition consisted of a large number of photographs, models and plans of both road and rail bridges throughout Switzerland. As an engineer, many of the projects were by Conzett himself, but the grey, monochrome aesthetic of the photographs resulted in images that did not engage the viewer and deterred prolonged consideration. The exhibition catalogue continued in the same vein unfortunately and failed to open up this area of architecture and engineering to a wider audience. Conzett's earlier book, *Structure as Space*,³² contains an interesting essay by him on retaining walls. Here he discusses Swiss landscape in relation to road architectures, bridges, retaining walls and manages to communicate why the reader should be interested in these structures, something that was not expressed within the photographs and exhibition at SAM.

Within the areas of architectural history and theory, *Complexity & Contradiction in Architecture* by Robert Venturi³³ introduced a consideration of proximity of ‘super and violent adjacencies’³⁴ within architectures. This presented a new way of looking at some of the motorway architectures I was discovering in urban areas. I found the visual complexity and intensity of Piranesi’s *Carceri* series was useful for the same reasons.³⁵

Lucius Burckhardt’s essay ‘The Aesthetics of Landscape’ in his collection *Why is Landscape Beautiful?: The Science of Strollogy*³⁶ provided the idea of landscape as a mental construction that allows for abstraction. This confirmed ideas I had had regarding the way we look at landscapes, omitting and ignoring elements that we are not interested in. With the exception of Thomas Zellner’s *Landscape of the German Autobahn*³⁷ and *The World Beyond the Windshield. Roads and Landscapes in the United States and Europe*, edited by Christof Mauch and Thomas Zeller,³⁸ I found very few books that addressed the subject of motorways, and none that address their aesthetics in particular. A monograph in Italian on the Ticinese architect Rino Tami,³⁹ provided photographs of his work on the Ticino autostrade in southern Switzerland, but this was merely a collation of his work without further contextual or historical information or discussion. *Roads, Routes and Landscapes*, published by the Oslo School of Architecture,⁴⁰ is a collection of essays on historical routes but its bias toward Norwegian subject matter made it hard to access.

Within the category of photographic theory, Robert Adams’ *Why People Photograph*⁴¹ and *Beauty in Photography*,⁴² which were interesting in particular for the celebration of simple aesthetics and beauty in landscape photography. His definition of the three verities of landscape photography – geography, autobiography and metaphor – were useful to consider within my project with regard to the visual composition of a photograph. Similarly, *Thoughts on Landscape* by Frank Gohlke⁴³ and *The Complete Essays* by Luigi Ghirri⁴⁴ offered wider and general discussion of landscape appreciation and construction principles within photography. With many of the essay collections I read, although interesting, I found that very few of the contributions were relevant to my field of study and many only in the most tangential of ways. Joel Snyder’s essay *Territorial Photography*,⁴⁵ in *Landscape and Power* was the most fruitful in its discussion and contextualising of 19th-century landscape practices and aesthetics in photography of the American West, with particular reference to the photographer Timothy O’Sullivan. O’Sullivan was a photographer whose work I felt dealt with similar issues with regards to making photographs within large-scale landscapes and consideration of his work in this essay aided my own understandings of scale and sublimity in photographic landscapes.

I consulted monographs on both historical and contemporary photography, including *The Genius of Photography*,⁴⁶ *Shooting Space; Architecture in Contemporary Photography*⁴⁷ and *Why*

Photography Matters as Art as Never Before.⁴⁸ All these provided essays contextualising individual photographer's work and general photographic themes but failed to discuss ideas relevant to the types of landscape photographs I made in this research project. *Berlin Raum Radar: New Architecture Photography*⁴⁹ is a recent monograph exploring depictions of Berlin by a collection of contemporary photographers working in the fields of landscape and architecture, including Michael Wesely, Mitch Epstein, Ulrich Wüst and Tacita Dean. The collection, based on an exhibition, presents photographs that have the familiar tropes of contemporary German photography – derelict interiors of abandoned architecture and street scenes utilising anti-compositional techniques – so unfortunately the book does not present the viewer with anything unexpected. The photographs within this monograph can be described as examples of the banal aesthetic, which has become a prevalent style within contemporary art photography in recent decades.

I use the term banal with regard to a particular type of architectural and landscape photograph, in terms of both its aesthetic appearance and subject matter, and which I will now discuss. Within photographic theory, the term banal is frequently used but it seems to have entered theoretical art discourse without its introduction by any one specific theorist. It has roots in the German *New Objectivity* [Neue Sachlichkeit] movement of the 1920s and 1930s; photographers including August Sander and Albert Renger-Patzsch rejected the prevalent soft, pictorial style of photography with its close relation to painting, to make photographs with a clear and documentary edge. In Renger-Patzsch's *Glasses* (1927), he photographs four different types of glass on a white background with strong directional shadows. He said he wanted to use the camera with 'objective, sober eyes' and this clearly describes the aesthetic and composition he achieved within his work.⁵⁰

The influence of this neutral and sharply defined style can be seen in the Farm Securities Administration's documentation project of the American Depression, but its real influence was in the seminal *New Topographics: Photographs of a Man Altered Landscape*⁵¹ exhibition at George Eastman House in New York in 1975. This exhibition was a paradigm shift in photography.

Under William Jenkins' curation, the work of eight young American and two German photographers, Bernd and Hilla Becher, was exhibited, all of whom were exploring landscape and topographical photography from a distinctly critical and detached conceptual position. Apart from Stephen Shore's work, all of the photographs were in black and white and the majority of them were made with large-format cameras, which are particularly suited to the architectural and topographical themes the exhibition was exploring: 'The pictures were stripped of any artistic frills and reduced to an essentially topographic state, conveying

substantial amounts of visual information but eschewing entirely the aspects of beauty, emotion and opinion.⁵²

The Bechers employed a rigorous methodology to produce their black and white photographs of industrial architecture that they termed 'anonymous sculptures'.⁵³ For five decades they systematically photographed grain silos, water towers, gas tanks, all with the same formula: photographing from a raised position to record the frontal elevation of the architecture, working in cloudy grey light without any strong shadows and the reduction of any additional or contextual information. The resulting photographs were then hung in a grid typology of 9, 12 or 15 photographs on the gallery wall. Although other artists at this time, including Lewis Baltz and Frank Gohlke, were also exploring the banal, conceptually and aesthetically, within their photography, it is the Bechers with whom the development and importance of this aesthetic and conceptual style is associated. The consistency of their photographic methodology, from which they never deviated during their five decades in practice, became the defining aesthetic in art photography. Their adherence to a systematic photographic methodology has linked them to the Minimalist and Conceptual art movements.

In their roles as professors at the Dusseldorf art school, the Bechers influenced a generation of students including Thomas Ruff, Thomas Struth, Axel Hütte, Candida Höfer and Andreas Gursky (the Struthskys as the Village Voice termed them or the Dusseldorf School as they are more commonly known). This group would go on to become the world's leading contemporary art photographers.⁵⁴ The majority of these artists work within urban, landscape and architectural photography and, even if working within the field of portraiture as in the case of Thomas Ruff, they have all expanded upon the Becher's regulated methodology to produce colour photographs, embraced digital technology and post-production manipulations, but the influence of their tutors and the legacy of the banal aesthetic remains evident.

Within contemporary photography the influence of this aesthetic cannot be underestimated. It has been the predominant style for any photographer working within urban, architectural or landscape photography for the last three decades, as can be seen through work of Thomas Ruff *et al.* This legacy has influenced more than a surface, aesthetic appearance, the choice of a muted or black and white tonal palette. The artist's decisions over subject matter and viewpoint and the spatial organisation of the photograph have also been informed by the banal aesthetic. Eugenie Shinkle mentions in her essay 'Boredom, Repetition, Inertia: Contemporary Photography and the Aesthetics of the Banal',⁵⁵ 'the refusal of image to acknowledge the mobility of the viewer's gaze'. She discusses the tendency of the banal image to represent a perspectively depthless space, a flat perspective that encourages a refusal from the audience to engage with the image: '*faced with banality we are asked to do nothing ...*'.⁵⁶ This lack of

engagement with the photographic image is where the problem of the banal lies in that it renders the photograph autographic. By this I mean that the image becomes about the photographer rather than simply the subject matter. The banal is anti-engaging, it rejects photography's tendency to reveal and celebrate its subject, instead revelling in an ordinariness and emptiness.

In his book *Passagen*,⁵⁷ Götz Diergarten takes this banal aesthetic reduction to the extreme. His photographs of facades, passageways and textures are compositions where the visual elements have been reduced to the absolute minimum: vertical format compositions of single doors or window frames. Although unusually some of the photographic series are brightly coloured, their aesthetic is the same. The apparent simplicity of the photographs belies a sophisticated composition; lines and details are carefully aligned to create extremely minimal photographs, devoid of any unnecessary information for the audience. The effect of this can become tedious, the photographs appear unreal and look like computer constructions. The aesthetic flatness, both conceptually and in regard to the lack of spatial depth within the photographs, douses the audience's attention and one loses interest in the imagery.

The German photographer Hans-Christian Schink's Traffic Projects: *Verkehrsprojekte*⁵⁸ project continues this engagement with the banal aesthetic through his photographs of East German road and rail infrastructures under construction. Although not a student of the Bechers, and working with colour instead of black and white, his photographs address the Becheresque methodology, with a reduced colour palette and little contextual information. His photographs show landscapes dominated by enormous white skies with a minimal detail at the bottom of the frame – a line of crash barriers disappearing into the mist or a small clump of trees breaking an otherwise empty landscape.

Toshio Shibata's detailed photographs of Japanese roads under construction are similar in aesthetic to Schink's. His practice consists of decontextualised photographs of human intervention within the landscape in the form of civil engineering infrastructures.⁵⁹ His abstracted compositions of concrete retaining walls and drainage pipes again are devoid of contextual information, instead celebrating the textures of concrete and earth in close proximity. This is an approach to engineering photography that I chose not to pursue due to its inherent abstracted nature and lack of any sense of the relevance of site within the photograph. Shibata's photographs could be taken anywhere, their abstraction renders the site unimportant.

Margarita Spiluttini's work is located within similar Swiss Alpine landscapes to my field of study but her photographs are of sites normally inaccessible to the general public. In her book

Beyond Nature: Constructions of Landscape,⁶⁰ the photographs show motorway air vents on the tops of mountain passes, road bridges, isolated reservoirs and stone quarries. She works in both colour and black and white and, although her photographs do not adhere aesthetically to the banal aesthetic of the aforementioned artists, the photographs in this collection appear somewhat random, exploring a wide range of landscape constructions without a cohesive narrative structure. From my experience of also photographing in similarly difficult terrains, I recognise that some of the compositions are compromised because of the problems of access: the achievement of finding the site trumps the integrity of the photographic framing. Her work differs from mine in that it lacks the rigour of a constant subject matter and appears to be more about the difficulty of access and the resulting photograph, than a precise investigation.

Catherine Opie's photographs of Los Angeles Freeways were produced in 1994 to 1995, although they have the appearance of early 19th-century photographs due to their soft- and sepia-toned aesthetic. She has rejected the contemporary habit of large-scale printing to produce small-scale photographs in a panoramic format that are 'monuments to Southern California' and have an intimacy that forces the audience into reconsidering the architecture.⁶¹ Again, they are devoid of any contextual information (the white-out of the skies is reminiscent to the wetplate collodian process, where the blue sensitive emulsion made a sky with clouds impossible to render), and they embrace a more pictorialist aesthetic, where the painterly haziness of the photographs softens the extremity of the highway landscapes.

In 2004 the London photographer Michael Collins curated and published a book of 19th-century engineering photographs entitled *Record Pictures. Photographs from the Archive of the Institute of Civil Engineers*.⁶² This selection of documentary photographs made by engineers of their projects was supposed to be strictly illustrative and authoritative, made without regard to aesthetic composition. The photographs provide no biographical or personal information about the photographer, and offer no clues to their intentions for the image. From the contemporary perspective this is unusual, but is actually what the photographers intended. They were solely records of the engineering or construction, the historical equivalent of the iPhone photograph as a sketch or note.

In Michael Collins' own work we can see he continues this exploration of the neutrality of this compositional and aesthetic approach. In both his photographs of the unfinished M6 toll motorway and his larger investigations into the urban landscape, the conceptual neutrality of the recording-pictures principle becomes a methodology. Unfortunately it has the effect of making all of the photographs appear the same. There is no hierarchy of information within either the individual photograph or larger series; thereby creating an aesthetic levelling. This

claims to give emphasis to the subject, allowing for description rather than representation, instead it creates monotony. Nicolas Faure's books on the landscapes of, and surrounding, Swiss motorways, *Autoland: Pictures from Switzerland*⁶³ and *Landscape A*⁶⁴ investigate what George Perec termed the 'infraordinary', the subtle and unremarkable landscapes that surround us, so ordinary we often don't see them. Although always interesting to see how other artists have photographed motorways and roadside culture, I found these books were not useful to my research as they celebrated the very ordinariness that my project was in opposition to.

*Transit Land/Pays Transit Belgian Motorways*⁶⁵ by Rob van Hoesel is a systematic photographic survey of all of Belgium's motorways and ring roads, shot from the windscreen of his Opel Corsa. Each chapter of the book details a particular motorway and each photograph is precisely annotated with information including last noted exit, sequential photo number and closest international border, with the aim of providing the audience with an extremely detailed survey of Belgian motorways. The book celebrates the banality of the landscape being recorded, and entire pages of similar photographs occur frequently. The photographs are presented in a variety of sizes but the constant theme is that of a filmstrip, as if the photographs should be animated to increase the feeling of travel. The book succeeds in its impressive feat of cataloguing and systematic photography, however it has the feel of a conceptual art project where methodological form trumps content instead of a photographic investigation of Belgian motorways.

Uschi Huber's *Autobahn*⁶⁶ takes a similar cataloguing approach to a selection of European motorways but without van Hoesel's methodological rigour. Her photographs are made during walks along European motorways and they record both the road landscapes and the service stations. Without the obsessive cataloguing of *Transit Land*, the photographs in this book lack a narrative purpose and fail to encourage any engagement with the viewer.

These nine artists make work that has a connection to this research project, specifically through their investigation of road and motorway architectures and landscapes. They can all be categorised as having a stronger connection to the banal aesthetic, whether through the choice of their desaturated and/or black-and-white tonal palette or a more conceptual relationship to the banal through its spatial composition and subject matter of the photograph. This is not an aesthetic or conceptual approach that is compatible with my photographic practice; photographs made within this aesthetic exude a boredom. As I will discuss in Chapter 6, my photographs aim rather to celebrate the aesthetics of motorway architecture. The photographic series is intentionally designed to promote an acceleration of feeling in its narrative progression, provoking an intensity of feeling from the viewing audience – the

antithesis of the banal's aesthetic of 'visually impoverished images that lack signs of any interior life'.⁶⁷

Within wider urban landscape photography, I looked at the work of photographers from the loosely termed Italian School, including Luigi Ghirri, Guido Guidi, Gabriele Basilico, Walter Niedermeyer, Domino Minghella and Massimo Vitali. The publication of *Viaggio in Italia*⁶⁸ in 1984, the catalogue for an exhibition curated by Luigi Ghirri, is considered by photographic historians to mark the beginning of a new era in Italian landscape photography. The book, which included the work of Ghirri, Olivio Barbieri and Mimmo Jodice, investigates themes of national identity and suggest new interpretations of landscape photography. The photographs became a manifesto for the investigation of the unknown tropes of Italian landscape and rejecting the romantic vision of Italy of frescos and Renaissance architecture.

The aesthetic of the Italian School makes an interesting counterpoint to the austerity of the Dusseldorf School. It is not simply a case of Italian colour photography juxtaposed with German black and white, as photographers from both groups work in either medium, but more that the Italian photographers pursue a wider range of investigations within what can be termed landscape photography. Within this loose collective the work of Massimo Vitali⁶⁹ was particularly helpful with reference to this project. His large-scale photographs of Italian beaches contain multiple narratives within the photograph, often showing hundreds of people, which means they can be likened to classical landscape paintings. Their colour is extremely saturated, the rich blues of the sea and sky and hot white of the sand emphasise the blistering heat of Italian summers in which the photographs were made. I found Vitali's work useful to reference due to both the intensity of the colours (he does not explore the familiar reduced colour palette of banal photography) and the enormous scale of the landscape he photographs. This was analogous to the motorway landscapes I photographed where different scenes within the landscape offer multiple simultaneous narratives.

The photographers' work that I found most connection with in relation to both subject matter and aesthetic language, and most useful to reference during this project, are Peter Bialobrzeski, Walter Niedermayr, Nadav Kander and Bas Princen. Bialobrzeski is best known for his book *Neon Tigers* of Asian metropolises, but in *The Raw and the Cooked*⁷⁰ he photographs more modest, vernacular architecture. I found connections to his work in two ways, through subject matter and colour palette. His photographs of ignored architectures within hyper-urban environments was a similar conceptual investigation of motorway architecture of my own, both of us photographing architecture that surrounds our everyday lives but is at the same time invisible.

I also found his photographic aesthetic to be inspiring, as he celebrates the colours he finds in the environments he documents. This results in photographs that are saturated with colour, which the viewer reads as an integral character of the environment and not an aesthetic that is often reduced and desaturated.

I was interested in Walter Niedermayr's work for the purposeful over-exposures he employs within his landscape photographs, which results in a strange and alien light quality.⁷⁰ His work frequently employs diptych and triptych formats – installing two or three large-scale photographs in close proximity within the gallery environment to produce large-scale images that are read together to form one larger work. The scale of the landscapes he photographs is vast; large mountainous expanses of emptiness or highly elevated views of cityscapes. It was the purposefully overexposed and surreal quality from their aesthetic pallet that I found interesting to consider. I knew that the use of such intensive exposure manipulations was not an area that I was likely to pursue but it was important to become familiar with different aesthetic responses to landscape representation and understand the consequences of wide-exposure manipulations that artists employed.

Nadav Kander is a contemporary photographer whose wide-ranging practice extends from portrait and commercial advertising work to directing, but it is his documentation of the landscapes of the Yangtze River and Three Gorges Dam project within his *Yangtze – The Long River* project, that is most relevant to consider in relation to my research. Within this series Kander followed the entire course of the Yangtze river, making a series of landscape photographs of the people and activities he encountered along the banks of the river. These photographs intentionally refer to the tradition of the sublime within them; Kander's photographic compositions frame the architecture and nature in tension, and all are set within the abiding haze of pollution.

I was interested in Kander's work because of the anxiety the images create in the viewer. The incongruity of the colossal Three Gorges Dam project on the Yangtze river, which involved the displacement of over a million people and has created a dystopian and rampant urbanism, but is depicted in photographs that are beautiful and seduce the viewer.

Of all of the photographers discussed within this literature review though, it is Bas Princen's work that is most relevant to consider in relation to this research project. Trained as an architect, Princen's photographic practice explores the landscapes surrounding architecture as much as the actual buildings he photographs, spaces most often found on the periphery of the city. In the book *The Construction of an Image*, Geoff Manaugh describes Princen's photographs as 'documenting international non-places that we might see a thousand times before we ever

really notice them at all.⁷¹ These photographs typically depict an architecture whose ambiguity creates an almost surreal and unnerving response in the viewer, responses similar to the sublime incidents my photographs depict.

It is also in the research booklets that Princen creates in reference to his photographs that I am interested in. These A5 booklets contain small reference images, frequently downloaded from the internet and are used by Princen to 'test possible dialogues and formal arrangements' for the photographs he will eventually make. It is the use and importance of contextual, historical and research imagery and materials as an intellectual framework to the images that Princen makes that I found related to this project. Princen makes and constructs his photographs after prolonged research and consideration of what exactly he wants to communicate within a particular image, which is the analogous to the research methodology I have developed within this project.

Throughout this literature review I have discussed the work of my photographic peers and considered how their practice may contain elements that are comparable in some way to my work, but it is now important to discuss what is distinct and original about my own photographic practice.

Firstly, the aesthetics of motorway architecture as the subject matter for either an artistic or academic project is a completely original. As discussed earlier in this literature review, both Hans-Christian Schink and Catherine Opie have photographed motorways, but neither of these photographic projects has concerned the aesthetics of these architectures. Schink's work, through his continued engagement with the banal aesthetic, treats the motorway architecture as a decontextualised object, more akin to a portrait photograph whereas Opie's photographs although depicting Los Angeles freeways, are more concerned with referencing 19th century photographic traditions and printing techniques.

Instead, my work celebrates the architecture of the motorway and rejects the cliché of these architectures as being brutal and at worst, boring. The photographs reveal incidents within the motorway architecture that are not normally looked at, and they document and honor the visceral pleasures of these architectures.

The photographic series is driven by an investigation into their aesthetics, rather than simply a documentation of their architectural forms and is backed by an intellectual framework of theory and research. This intellectual framework and the uniqueness of my research is found through my innovative use of 18th century sublime aesthetic theory which is the foundation of a new photographic methodology for making photographs of motorway architecture.

My application of sublime aesthetic theory in relation to motorway architecture is original; I have used it as a visual filter through which to identify incidents of the sublime in motorways found within a field of study from the Alps to Naples.

My use of the term sublime is innovative in academic research through its direct reference to 18th century aesthetic treatise, unlike in contemporary discourse where the word sublime has become diluted into a weaker aesthetic description. By using the 18th century definitions of the term, I have been able to identify incidents of the sublime within this large-scale architecture; the resulting photographs have explored the sublime narratives present within a normally ignored architectural form.

Another distinct aspect of my practice involves the photographic investigation into the interrelationship between the architecture and its surrounding urban or rural contexts. Often architectural photography can be more likened to that of portraiture, where just the architectural object is documented, but the originality of my practice is in that it emphasizes and includes all the contexts, the visual noise and chaos of urban sites and immensity of landscape are all embraced and intentionally included within my photographs.

This inclusion of surrounding contexts within the photographic frame is informed again by the use of sublime theory as a generator for the consideration of where to place the camera, and the precise compositional framing in order to identify (and photograph) sublime incidents within the motorway architecture.

Unlike in photographs by William Eggleston, where his “democratic camera’ which considers every object worthy of depiction”⁷² - the inclusion and exclusion within my photographic framing is still discriminating, the decision of precisely what to photograph is driven by architectural context generating a sublime incident.

The originality of my practice from that of my peers is also found within the postproduction manipulations and final presentation of my photographs.

I intensify my response to the architecture through the editing process and my motivation during the editing process is for each of the photographs to not just reveal the sublime incident but also that the depiction successfully engages the viewer in consideration of the architectures in question. This motivation is manifest through the post-production manipulations that I make to my photographs, where the intensification of my response to the architecture is a further example of the originality of my practice.

As I have discussed previously in the Methodology chapter, I use the term ‘enhance’ when discussing the manipulations to the digital raw files in Photoshop, but these enhancements are

grounded within my innovative photographic methodology. The historical researches I undertook into the history and traditions of classical landscape paintings form the inspiration for the post-production. By this I am referring to the discoveries I made during these researches with regard to colour palette and narrative structure of the images. Through manipulation of the shadow tones within the digital raw file, I am able to intensify the effects of light and shade within the photograph, which has the effect of intensifying one of the significant findings of this research project - that of the light conditions within a site being a generating factor of an incident of the sublime. The tonal magnification, through Photoshop manipulations – of shadow details within a photograph, accentuates the acuteness of extremities of light within a particular site, the blinding intensity of the highlights and deep blacks of the shadow areas are a unique postproduction aspect of the new photographic methodology that this research project has created.

Another example of the originality of my approach to post production manipulations can be seen in the reference I made to Mannerist colour palettes during my research into historical landscape painting. Within early Mannerist paintings, the tonal palette of the background landscapes supporting the paintings narratives, were highly suggestive; their purpose was to accentuate the depth and spatial qualities of the painting in question. My original response to this has been through the manipulation of intensity of the colour palette within my photographs. By increasing and accentuating the colour saturation of particular aspects of individual photographs it has been possible to translate an intensity of colour into symbolizing the intensity of heat within the site and photograph. This original approach to post production manipulations was particularly relevant within photographs at the end of the final photographic series as these photographs were made in Naples – mainly during the summer months, when the summer temperatures were suffocating and it was important to transmit this into the photographs – and sublime incident – that I was recording.

My distinctly innovative approach to colour palettes is an intentional opposition to the banal aesthetic language common to my peers within architectural and landscape photography. Significant exponents of the banal include the Bechers, who through their use of this aesthetic, dematerialize their subjects, removing them from reality, or the American photographer Steven Shore, whose synthesis of amateur and artistic photographic traditions - albeit working in colour, also uses this aesthetic language. But as I discussed earlier in the Literature Review I have chosen to reject this aesthetic. The intensity of colour and tonal values that I choose to intensify within my photographs is for an intentional and considered intellectual effect as I have described above. Therefore to engage with the dominant banal aesthetic, prevalent within contemporary art photography would render my intentions for my photographs impossible to achieve.

The final way in which my photographic practice is distinctly original from that of my photographic peers is through its method of presentation and output.

As I have discussed previously I rejected the standardized method of presentation – that of large-scale photographic prints that overwhelm the viewer, instead choosing to make the viewer of the photographs become much more physically close to the photographs due to their much smaller size of reproduction. Therefore my choice to present my photographs with a leporello format is another factor that emphasizes the originality of my work.

The leporello format of presentation was discovered during research I made into the historical and artistic traditions of the Grand Tour and with particular reference to 18th century print portfolios, which were often purchased as by the travellers as a souvenir of their journeys. My interest in this specific format of presentation is because of the way the leporello allows for the creation of a narrative theme throughout the photographs. In the physical proximity and joining together of photographs to create one long string of images, the leporello format allows photographs to be simultaneously both separate and together. The photographs have a connection to each other both through their immediate adjacency and also through the pairings of photographs that the manipulation of the pages of the leporello allow. The pages of the leporello can be opened and closed in a multitude of combinations of sequence, facilitated by the hinged pages, allowing for photographs to have the original narrative sequence that I created as well as numerous possibilities created by the viewer.

In conclusion, within this literature review I have sought to find examples of readings, exhibitions and artworks by a variety of writers and artists who have dealt with representations of landscape, however tangential, within their work.

This research has endorsed that the factors of subject matter, inclusion of contextual informations, precise and considered photographic framing, post production manipulations and methods of presentation and output are intellectual decisions that form the basis of my new photographic methodology and confirm the originality of my photographic practice.

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27. Tate Britain, *John Martin: Apocalypse*. 21 September–15 January 2012
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Chapter 3. Field of Study

Prior to undertaking research to identify case study sites for on-site photography, it was necessary to define the field of study for this project. My original intentions for this PhD research project were too wide-ranging and the impossibility of my original idea – a photographic investigation of the entire European motorway network – soon became apparent. It was necessary to reduce the field of study to something more achievable but it needed to be an area with specific relevance to the research and large enough to provide a variety of topographical and urban conditions for the photographs I would be making.

My research into 17th- and 18th-century paintings and aesthetic landscape classifications and the connections between the Grand Tour and the sublime as an influence on art and culture from this period were factors that informed the identification of a field of study.¹ From this, two main factors enabled the construct of my field of study. Firstly, the actual routes that Grand Tour travellers took from northern to southern Europe and secondly, their hunt for experiences of the sublime. Travel throughout Europe had been more commonly undertaken for religious or political reasons, but during the 17th and 18th centuries, travel for pleasure and education began more intently. Normally embarked upon by young British aristocrats with an accompanying chaperone, the Grand Tour became a vital part of their education and affirmation of social status. As the tradition of the Grand Tour developed to become a customary cultural experience, its routes and destinations became more established. Once leaving British shores and entering France, the main destination was Paris, but as Jeremy Black discusses in his book *Italy and the Grand Tour*,² '[there was] no cult of the countryside, tourist travelled as rapidly as possible between cities, regarding the mountains with horror, not joy.'³

Once the obligatory architectural sites of Paris had been visited, Italy was the main destination for travellers. Italy was considered the centre of classical culture and travelling there was seen as a demonstration of a tourist's good taste and the highlight of any Grand Tour. Travellers generally followed a north-to-south trajectory; the classical world of ruins and their representation in landscape paintings determined where they should visit and what should be seen. The Italian cities of Genova, Turin, Florence and Venice were unmissable destinations but precise routes through Italy depended on where travellers entered the country. Many, wishing to avoid Switzerland and the Alps, left from Marseilles for sea travel to Genova as no land routes were available at this time. The majority ended their journeys in Naples as this

was the end of the 'civilised world' as they saw it; very few travellers continued on to Sicily or Greece.

Due to extreme topographies, both Switzerland and Italy contain a large network of motorways and complex urban conditions, particularly when these motorways intersect with cities. I used the northern Alps in Switzerland as a starting point for the field of study. North of the Alps, the landscape is generally much flatter and therefore without the topographical complexity my project required.⁴ From Basel at the junction of the Swiss, French and German borders, it is possible to follow a reasonably straight line via motorways to Naples in southern Italy. Naples became the end point within the field of study since it was the end of the route for Grand Tourists. I felt that there was a resonance in this decision. It would have been possible to continue the research further south to Reggio Calabria, where the motorway ends on mainland Italy, but this would have resulted in an area too large to research.

Additionally, the density in the urban fabric in the city of Naples as opposed to the mountainous start of the route meant that there was a dynamic of intensity from north to south. The ultimate sublimity of Naples in contrast to the seemingly empty Swiss Alps (though, in reality, Switzerland is a densely populated country) brought an appropriate acceleration to the route.⁵ For this discussion, the approximations of east–west borders were defined by individual country borders; in other words, Switzerland as a small country covering 15,940 square miles and Italy's tapering landmass of 116,347 square miles. The length and narrowness of Italy's footprint naturally accentuates the north–south trajectory of the field of study (fig.4).

The Grand Tour travellers' search for experiences of the sublime was the other factor that influenced the choice of field of study. It was not until the growth of the Romantic movement in the 19th century that an experience of the sublime and the mountainous landscapes that inspired it became a required part of a traveller's itinerary: 'Switzerland was seen as a goal rather than an obstacle.'⁶ Previously, crossing the Alps had been seen as a perilous part of the journey, both from the fundamental difficulties of traversing a mountain range without established roads or mechanised transport to the fear of the alleged bandits waiting to rob the rich travellers; it now became an essential part of the journey. Travellers wished to (safely) experience for themselves the sublime landscapes that had previously only ever been seen in paintings. I felt that their search for the sublime experience, in the mountainous Alpine regions, was equivalent to the search for sublimity in motorway architecture that the project was investigating.⁷

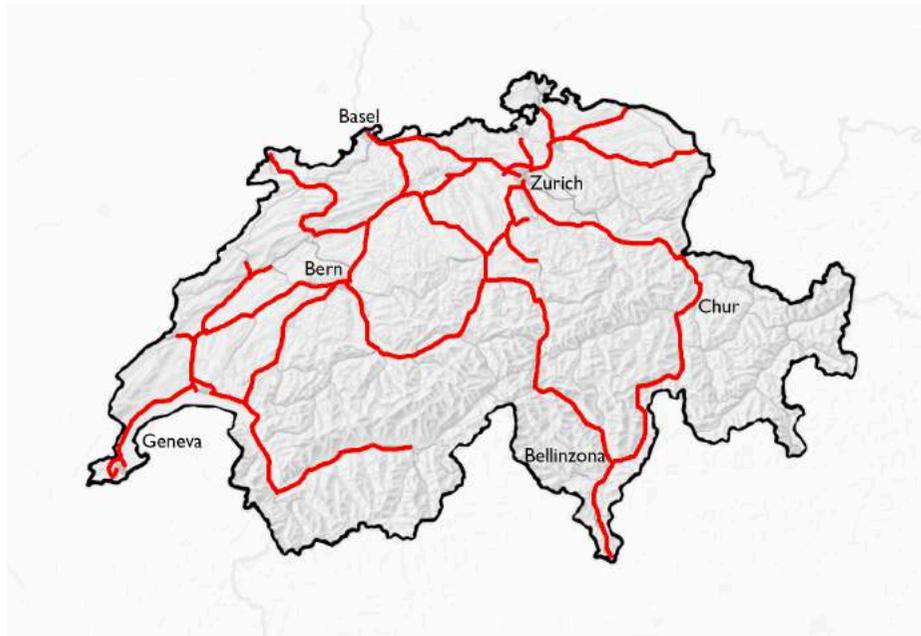


Fig 4.
 Maps showing motorway routes in Switzerland
 and Italy:
Red lines – Motorways driven and researched for this
 project
Green lines – Illustrate Italian motorways outside of
 field of study

This research project uses 'from the Alps to Naples' in its subtitle, which may sound misleading when in actuality the Alps as a mountain range extend from Slovenia in the east to France in the west. I decided to limit my focus to the alpine landscapes of Switzerland only, again to prevent the field of study becoming unmanageable. The 'Alps to Naples' also has a resonance of the Grand Tour history and suggests a general movement from mountainous to city landscapes.

1. See Chapter 5 for more discussion of the establishment of the field of study.
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5. See Chapter 6 for further discussion of acceleration through the route and resulting photograph.
6. Black, J. (2003) *Italy and the Grand Tour*, New Haven, CT.: Yale University Press, p.16
7. See Chapter 5 for more discussion of the link between motorways and sublimity.

Chapter 4. Methodology and Research

The methodology employed in this project can be divided into two differing but related areas – practice-based methodology and research-based methodology. Within the practice-based methodology, it was important to have empiricist experience of actual motorways; of driving on and adjacent to the motorways I was examining and potentially photographing. This was because the phenomenological response to the motorway architecture, the experience of the sublime incident at a particular location (or not), could only be experienced and understood in reality. No book reference or Google Earth Streetview image could adequately encompass the real experience of the motorway architecture at each particular location.¹

The practice-based methodology was further developed by the actual making of photographs. This may appear to be an obvious statement but it was only through the careful composition of the photograph within a chosen, potentially sublime location that it possible to understand if it was in actuality a location containing an incident of the sublime. The research-based methodology involved reference to a wide range of texts covering the fields of art, architecture, landscape, travel and historical literature: any fields that had a potential relevance to my project. These also included maps and, importantly, exhibitions, which, as stated in the Literature Review, I visited during this research project to understand how other artists and photographers had dealt with landscape and architectural representations within their work, both contemporary and historically.

Gallery and Library Research

I undertook extensive historical research during this PhD project because, despite teaching photography within an academic institution, the years I spent as a commercial photographer had distanced me from art history and from any significant reflection on my own photographic practice. I felt therefore that it was important in by-practice doctoral research to revisit the history and traditions of landscape imagery. Upon reflection, this has been extremely beneficial for the production of photographs made within this research project, and I discuss the reasons for this below.

Since digital photography is a relatively new aesthetic medium, its relationship to chemical photography is analogous to the relationship between painting and the invention of

photography in the 19th century. It was at this point in art history, that being a new artistic medium, photography could only refer back to painting for its inspiration and prospective traditions. I was interested in exploring this interrelationship between early photography and painting because to make successful photographs of such a difficult subject as motorways, it would not be enough to simply record the motorway architecture through the photograph. The photographic series would need to contain narratives that were revealed and enhanced within the photograph – an approach to the making of the photograph that is analogous to that of painting, where particular areas of the canvas are given more narrative significance by the artist than others.

Landscape Painting: Landscape as Setting

I found it was useful to focus on a number of specific paintings that contained ideas and aesthetics that were comparable with similar issues within this PhD project. Rather than undertaking a general study of the history of landscape art, I was seeking paintings that had resonance with my project and that contained ideas of composition, colour palette, and light. These would help expand and evolve both the practical photographic component and thesis of the PhD.

My research was wide-ranging within the genre of landscape painting and based mainly within the National Gallery in London as their permanent collection holds a broad selection of artists. With a consideration of chronology of historical landscape painting, I began my research by looking at the early Dutch topographical landscapes and seascapes and the paintings in Room 16 in particular, which includes works by Aelbert Cuyp and Salomon van Ruysdel. These paintings were typified by a monochrome palette and naturalistic representations of Dutch landscapes and were almost photographic in their representations. I was interested in these paintings for the neutrality in their representation of landscapes: they were almost photographic in their restraint. Room 19 contains the allegorical landscape paintings of Nicolas Poussin; here I discovered examples of paintings where landscape is used as a setting to convey a narrative episode. Historically, landscape painting was not a genre of its own until the Renaissance; prior to this landscape was merely a background within a painting, supporting the historical or religious narrative the artist wished to convey. The landscape itself was marginal to the human (narrative) subject and was often considered unscholarly as the main theme for a painting.



Fig 5.
Landscape with Man Killed by Snake.
Nicolas Poussin. 1648. National Gallery. Britain

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In *Landscape with a Man killed by a Snake* (c.1648) (fig.5), Poussin locates the setting of the painting within an expansive and seemingly tranquil rural landscape, where a number of

interacting narratives are occurring. The foreground shows a dead man with a snake entwined around his body; a second man runs away upon seeing the snake and corpse. A woman further back in the painting appears shocked to see the running man (the snake and corpse carefully concealed from her view by foliage) and finally, in the background, three fishermen are oblivious to the unfolding events. Although they are placed in a seemingly insignificant position at the bottom left of the canvas, the man and snake are the dominant narrative components within the painting; the subtle violence of the narrative spreads and dilutes throughout the depth of the painting. The other figures within the painting are staffage – human figures within paintings that are not the primary focus of the work but are included to provide scale and reference to the main narrative focus. All of these narratives are occurring simultaneously and, although interrelated, can be read independently of each other.

Within this type of painting, the landscape is the space where the narrative takes place, a stage set in which to locate the story. The background is not unimportant, it is a host for the allegorical narrative that the painting is conveying. I was interested in this painting for its positioning of the narrative in an apparently isolated area in the bottom of the canvas – the man being attacked by the snake appears to be hiding, the horror of the event could be easily missed by the audience. The seemingly tranquil rural landscape that Poussin depicts is emphasised by the scale of this landscape in juxtaposition with the narrative being placed at the bottom of the canvas.

Poussin's portrayal of differing but simultaneous narrative elements within his paintings, are examples of the historical techniques of 'argument', the main narrative element and 'paragon', the accompanying, secondary narrative within paintings. Poussin's portrayal of a multiplicity of people and narrative events within a painting (despite the fact that paintings from this period were frequently invented landscapes, based on idealised versions of the Italian landscape), and simultaneously occurring narratives, were useful in relation to the photographs I made within larger non-urban landscapes. These are landscapes so large that it was possible for them to contain multiple areas of narrative detail. An example of this idea of multiple narratives within a photograph can be seen in *Via San Gottardo* (fig.6), in the San Gottardo mountain pass in Switzerland. Here, the motorway is elevated and curves to follow the topography through the valley and it is possible to find simultaneous narrative elements within the photographic image.

While researching historical landscape paintings at the National Gallery, J.M.W. Turner was another recurring presence in my research and an artist I referred to on many occasions. In Room 15 of the gallery, at Turner's request, four of his and Claude's paintings were hung together after his death. I found the paintings exhibited in this way to be very useful in the

Fig.6.
Via San Gottardo. Giornico, Switzerland 2013
Photo: Sue Barr



consideration of differing compositional depictions of two paintings with similar themes. In *Seaport with the Embarkation of the Queen of Sheba* (1648) (fig.7) Claude depicts a harbour scene framed on the left by ruined Corinthian columns. The painting has a warmth, which is typical of Claude's colour palette, almost sunset in its light condition. The scene is busy with people and boats but there is clarity throughout the depth of the painting, a sharpness that gives an equality to the various narratives it depicts. In Turner's *Dido building Carthage* (1815) (fig.8), although depicting an almost identical harbour scene, there is a haziness and softness to the painting. Turner draws the audience's attention to and emphasises differing areas of the painting more through his use of sharpness and blur.

I also discovered this use of differential focus within *An Extensive Landscape with a Road by a River* (1655) (fig.9) by Philips Koninck. Within the photographs I was expecting to make within this research project, and as a standard methodology within architectural photography, the depth of field of a photograph – the amount of focus within the photograph is usually the maximum that the lens will record, thereby making the photograph focused from foreground to background. Yet these two landscape paintings by Turner and Koninck both use sharpness and blur as aesthetical and compositional devices, manoeuvring the audience through the painting accordingly. These paintings revealed that this differential focus could be an aesthetic device that I might explore in the photographs I would be making.

My historical research progressed to investigate the internal composition forms of paintings from this period, which led to the discovery of the *repoussoir* technique. *Repoussoir* is a dynamic line or perspective within the image that directs the viewer's eye around the image, and it became an accepted basis for the construction of paintings. Trees would normally be used to frame the sides of the composition, a large branch or foliage would bend to lead the eye back into the frame and prevent it from escaping off the edge of the canvas. A winding road was another frequently used motif, which served a similar purpose. An example of this can be seen in Claude Lorrain's *The Finding of Moses* (c.1639–40) (fig.10). Claude, who unusually uses a vertical composition for the painting, depicts a large arching tree on the left of the canvas to frame the view and direct the gaze to the centre of the painting. The compositional shape of the painting is circular; both the tall tree, the foliage and shadow details at the edges of the canvas direct the viewer towards the narrative centre of the scene. This *repoussoir* technique also increases the feeling of depth within the painting, the large object in the foreground emphasising the expanse of space between the narrative character, Moses and the arched bridge on the distant horizon.

The development of the *repoussoir* technique had relevance to the photographs I was making because of the enormity of the landscapes the project was investigating. Within the rural



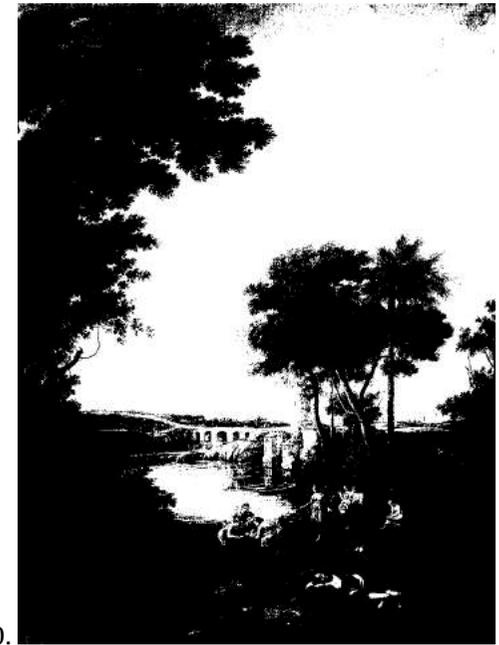
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10.

7. *Seaport with the Embarkation of the Queen of Sheba*. 1648. Claude. National Gallery, Britain

8. *Dido Building Carthage*. 1815. JWM Turner. National Gallery, Britain

9. *An Extensive Landscape with a Road by a River*. 1655. Phillipps Koninck. National Gallery, Britain

10. *The Finding of Moses*. 1639-40. Claude. Museo del Prado, Spain

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landscapes where the motorway and surrounding landscape contexts were normally expansive, an awareness of compositional techniques became useful as a tool for composing the photograph and containing its desired narrative elements within an internal framework. The technique had less relevance to the urban landscapes where the views and photographic compositions would be more restricted because of the density of the urban environment. Understanding the enormity of the non-urban landscapes the project was investigating led to research into *Weltlandshaft* paintings, the German term for 'world landscape view'. Although often depicted from an elevated viewpoint, this type of painting portrayed large and varied topographical ranges and figures within the painting are always dwarfed by their surroundings. *Weltlandshaft* paintings originated within the Dutch school of painting and with particular reference to Joachim Patinir. Discovering Patinir's landscape paintings led me to next consider the differing types and uses of colour palettes within paintings.

In *Landscape with the Rest on the Flight into Egypt* (1515–24) (fig.11), the most striking and distinctive aspect of Patinir's painting is its reduced colour palette. The painting can be divided into three tonal areas: brown in the foreground, bluish green in the middle ground and a pale blue tone at the back of the painting. Patinir used this particular colour-zoning technique to suggest a depth and emphasise perspective within the landscape. The painting contains a number of narratives, which can be subdivided into seven distinct narrative zones for the audience to follow, with the Virgin and child highlighted within the centre of the painting. As was customary within this period, Patinir used *repoussoir* devices within the painting. The winding road leads to a large mountain to suggest expansive distance and to move the audience through the painting, all the while maintaining a high degree of detail throughout the narratives, they are distanced and separated from the blue tones signifying distance. The shape of the mountain, rising up to a narrowing rocky summit acts as a 'cradle' for the various narrative strands. These distinct tonal separations help to emphasise the scale and perspectives presented within the painting, the colours working to increase the sensation of enormous distance between the particular places of narrative.

The colour palettes present within these *Weltlandshaft* paintings were profoundly different present within the landscapes could loosely be considered naturalistic. Although they have an overall warmth of colour and light depiction, generally within allegorical paintings the tone of the painting was consistent throughout the entirety of the canvas. The division of the scene illustrated from ground to sky remained in its expected earthy brown through to blue sky tonal palette. An example of this type of colour range can be seen in Claude Lorrain's version of the same biblical story depicted in Patinir's *Landscape with the Rest on the Flight into Egypt* (1616) (fig.12). In Claude's painting, the narrative takes place within the soft and glowing light of an idealised Italianate landscape. Here the characters rest in the foreground of the painting,



Fig 11.
Landscape with the Rest on the Flight into Egypt. 1518–1520.
Joachim Patinir



Fig. 12.
Landscape with the Rest on the Flight into Egypt (Noon). 1616.
Claude

Fig. 13.
Landscape with Lightning, c.1675
Francisque Millet



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as opposed to the centre of the canvas in Patinir's version, and a huge tree curving inward to the centre of the painting to contain and frame the narrative dominates the composition. Where Patinir's colour palette is cold and particular, Claude's is warm and comforting. The sense of threat evoked by the strange colour palette and presence of Herod's army in the background of Patinir's painting is missing from the tranquil setting in which Claude sets the narrative.

By reducing the particular tonal ranges present within one area of a photograph and emphasising the colour palette of another area, I discovered it would be possible to draw the audience's attention to specific areas of a photograph, areas that contained narrative aspects that I wanted to highlight visually. My research revealed that this use of a particular and directive colour palette had potential for exploration and manipulation within the post-production work on my photographs. I also researched the use and types of light within landscape paintings as I was interested to discover how it would be possible to make photographs in locations with extremely bright light. The geographical area in which I would be making photographs for this project and the logistics of my teaching commitments meant that I would be undertaking photographic fieldwork during the summer vacation, and therefore the photographs would be made in generally bright light conditions.

In Francisque Millet's *Mountain Landscape with Lightning* (c.1675) (fig.13), on a hilltop plateau two figures crouch in fear of the powerful lightning storm dominating the landscape. One of the figures raises their hands in fear of the approaching storm, while another group lower down within the painting continue their journey oblivious to the advancing weather. As in the previously discussed paintings, this too has a strong composition. A river entering the frame from the bottom left acts as a route into the centre of the painting and the receding mountain ranges act as theatrical *coulisses*. All these elements serve to frame the edges of the painting and again direct the audience's attention to its dramatic light conditions and lightning bolt. The steely grey sky highlighted by the strong yellow bolt of lightning and brooding rain clouds that are the dominating elements within the painting are the reason for its inclusion within this research. Millet uses the storm as a framing device to prevent the audience's eye from escaping at the top of the painting and the lightning bolt is virtually an arrow to direct the eye downwards to the figures cowering in fear of the storm.

I explored the potentiality for strong and dramatic use of light in a photograph I made in *Via Domenica di Roberto, Naples* (fig.3). It is possible within digital photography to make photographs at extremes of light conditions that would not be possible within the more limited exposure latitudes of chemical photography. In this photography, the light and shadow

are at their most acute within the photograph, intentionally accentuating the atmosphere of the photograph through the light conditions. The camera was positioned in a direct line on the edge of shadow, accentuating the intensity of the bright light on the right side of the composition. This exposure would have been difficult to achieve with analogue film, even through manipulations in the darkroom.

Landscape Painting: Landscape as Subject

The next set of paintings I referenced were those where the landscape was the focus and sublime narrative drive of the painting and how that could and would affect both the audience and myself as the photographer. Previously I had focused my research through art history to find compositional tools and aesthetic devices that I could use both literally and conceptually to support and advance my photographic picture-making process with paintings where the landscape was a background to an allegorical or biblical narrative, presenting the narrative within a conducive aesthetic environment. I was now interested to discover how landscapes were portrayed when the wild and untamed power of nature was the subject of the painting and how the power of these landscapes was used to evoke strong emotions in the audience. My decision to narrow the project's field of study to the mountainous areas of Switzerland and Italy was reinforced by my research into this genre of landscape paintings. I was also interested to discover how artists had depicted the very landscapes that my project was also documenting.



Fig 14.
An Avalanche in the Alps. 1803
Philip James de Loutherbourg
Tate Gallery. Britain

By the 18th century landscape painting had developed into a genre of its own, in response to the growing intellectual interest in the experience of travelling and concurrent with this period's obsession in art and literature with attempts to classify and define issues around aesthetics. In Philip de Loutherbourg's *An Avalanche in the Alps* (1803) (fig.14), the extremity of its narrative, the dangerous avalanche within a vast, unpredictable landscape, strongly evokes a sense of drama and danger within the audience. Whereas the picturesque was characterised by things small and containable, the sublime was concerned with the awe and fear experienced within an infinite and potentially destructive nature. This painting epitomises the sublime genre of landscape painting. Three small figures are dwarfed by a huge rock just in front of the avalanche, whose power has smashed trees and threatens to engulf them. The painting contained the types of compositional techniques that I had previously researched in artist's subjective and suggestive use of these colours to express danger. Here, it was the atmosphere and the emotion suggested by the painting that I was interested in. I wanted to discover how the landscape was depicted in sublime paintings in terms of the artist's representation of elements of danger and how these were used to convey emotions. *In de*

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Loutherbourg's painting the avalanche represents the potentially violent power of nature and the three figures act to emphasise man's insignificance in such a landscape.

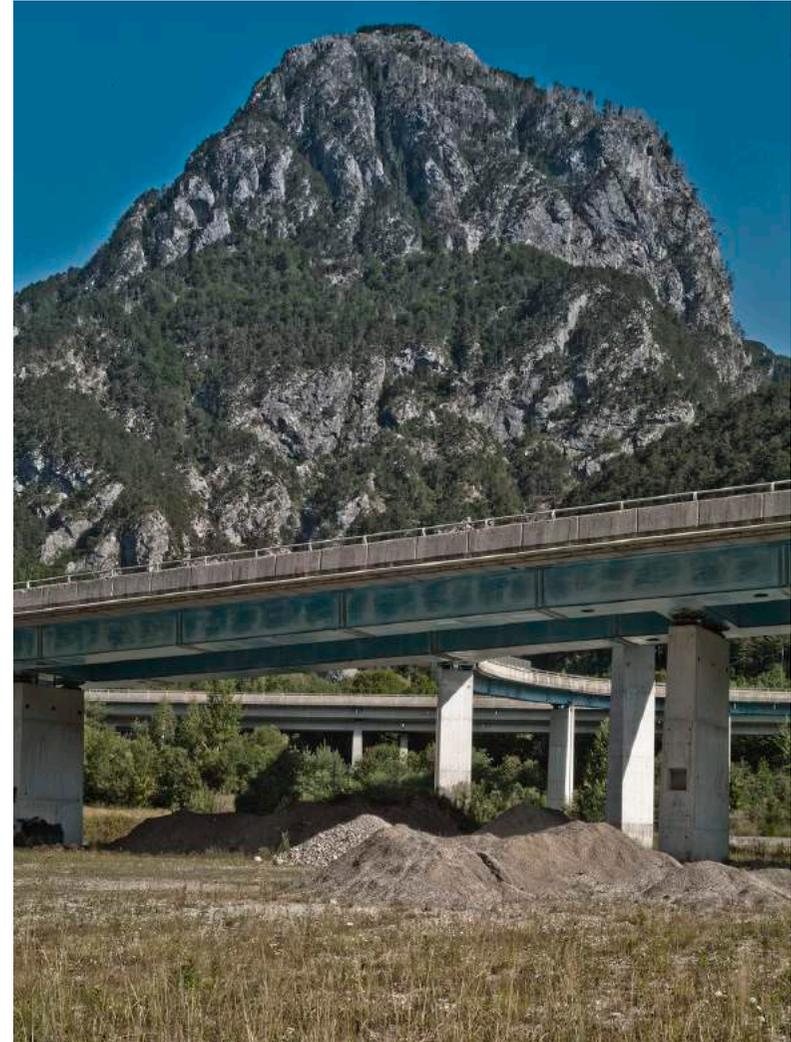
The depiction of differing scales of landscape within the painting was my primary focus for investigation. The dominance and feeling of immensity visible within the landscape juxtaposed with the insignificance of the figures were ideas that would be relevant within the photographs I would be making in the same mountainous, non-urban areas of Switzerland and Italy. Within these photographs the landscape would be the dominant factor and the human scale would be depicted through the presence of the motorway. In the urban case study sites, the motorway was the dominant sublime feature; here, there was a reversal and the man-made architecture, the motorway, would be the insignificant feature, dwarfed by the enormous sublimity of the natural landscape. As illustrated in *Via Deposito, Pontebba* (fig.15), when photographing underneath the enormous concrete motorway pilotis, the experience is analogous to that experienced by the figures in de Loutherbourg's painting. The motorway may be dwarfing the photographer/audience, but it is itself being dwarfed by the enormity of the landscape in which its located.

Landscape Photography

At this point in the research I returned to photography and looked at the work of the American 19th-century Geological Survey photographers. Their work had strong relationships to painting and especially to the sublime tradition. Having just investigated the sublime within landscape painting, it seemed a logical direction to follow. I was already familiar with their work and, although it cannot be argued that my field of study was in any way comparable to the unknown wildernesses in which they were photographing, I felt that there were distinct similarities within their work, particularly with reference to issues of scale and composition. These photographers spent extended periods of time away from their homes in the east to travel into the wilderness of the western states of America, to make photographs documenting and celebrating the vast and unmapped areas of the country. The essentially nomadic experience of driving across Europe searching for narrative moments in motorway architectures was, I felt, analogous to the photographic expeditions that these 19th-century photographers undertook.

In America of the 1860s, 'civilised world' ended around the Ohio and Pennsylvania borders, but in 1867 the US government commissioned geologist Charles Wheeler to undertake an expedition to explore and survey the landscape west of this point, along the fortieth parallel of the country to the California coast, which was also the route of the proposed

Fig. 15
Via Deposito. Pontebba, Italy 2013
Photo: Sue Barr



transcontinental railway. William Henry Jackson and Timothy O'Sullivan were among the photographers employed on this first expedition to make photographs that, on initial observation, were naturalistic and objective photographs of the previously unseen western American landscape. The photographs they made documented the natural beauty of the this landscape, and had a two-fold requirement: to act as propaganda images promoting the exciting newly explored western states of the country (with the implicit commercial and development potentials), and to secure financial support for funding future exploratory expeditions.

The heavy 19th-century wooden field cameras that these photographers used have direct relations with contemporary large-format cameras. Unlike modern digital SLR cameras, with their small restrictive viewfinders, 19th-century and contemporary large-format cameras (albeit with the benefit of precisioned 21st-century manufacturing techniques) both use large ground-glass viewing screens that enable rigorous photographic composition. The contemplative nature of these viewing screens ensures the photographer fully scrutinises the proposed photograph. At this point in photography, so soon after its invention in 1839, instead of photographing on to large-format film, they exposed their photographs using glass-plate negatives. This necessitated that the photographers travel with mobile horse-drawn darkrooms as they had to chemically process their photographs immediately after light exposure.

The issue of field of view and scale within the 19th-century survey photographers' work was an important similarity that I felt was comparable to the scale of the architectures I would be photographing within my research project. Generally the breadth of the landscapes within their photographs were vast, they were documenting mountain ranges, canyons and large expanses of wilderness. These corresponded to the large-scale motorway landscapes that my project would be documenting, particularly with the non-urban case study sites. While examining their work I began to notice how carefully composed their photographs were. The engulfing presence and beauty of the landscapes and the use of the human figures within the photographs to convey a sense of scale punctuate and add narratives to particular areas of their composition where they wanted to draw the audience's attention.

In this research I was attempting to discover how these photographers actually chose to make their photographs when faced with the expansive spaces of the American West. What ideas did they refer to, even subconsciously, in the composition of their photographs? Since they were working at the very beginnings of photography, their artistic references would have been the art that was contemporary to them. It is highly likely that they were familiar with landscape paintings from the European sublime and Romantic movements, but also with the



Fig 16.
Vermillion Cānyon, Colorado 1872
Timothy O'Sullivan
Library of Congress, USA

**IMAGE REDACTED FOR
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work of Hudson River School, where artists including Thomas Cole and Albert Bierstadt were also painting these vast untamed wilderness, the same landscapes the photographers themselves were photographing.

In *Vermillion Cānyon, Colorado* (1872) (fig.16), O'Sullivan places an almost invisible figure within an area of highlight at the bottom of the composition, next to a portable darkroom, which suggests the figure was a member of the expedition party. His positioning of the figure is not accidental. The photograph contains a large shadow from the high walls of the canyon, which falls diagonally across the space and O'Sullivan uses the small area of highlight on the ground in which to position the figure. Placing the figure here creates a sublime composition; he shows that man is almost insignificant within the landscape, which in turn emphasises the monumental power of nature. Without the figure in the photograph the landscape would be almost scale-less and it would be harder to read its powerful presence within the photograph. Comparable to sublime paintings, and with particular reference to de Louthembourg's *Avalanche*, where the figures are also dwarfed by the landscape, the large shadow creates an ominous and forbidding presence within the photograph, threatening to engulf O'Sullivan's figure.

I continued my research through the wider history of landscape photography, and revisited works I knew but had forgotten, for their possible relevance to my research project. This included the F64 group, seven San Francisco-based photographers including Edward Weston, Imogen Cunningham and Ansel Adams. They rejected the dominant pictorialist style of the early 20th century in favour of a modernist aesthetic. Of Ansel Adams, the seminal curator John Szarkowski writes: 'When we look at Adams's best pictures, we imagine that they were made by a man alone in the great high silences of romantic solitude.'² The romanticism and celebration of the natural landscape in Adams' work and this connection to the sublime was comparable to the landscape painters I had explored earlier. I also looked at the photographs made during the American depression by Farm Securities Administration photographers, with particular reference to Walker Evans and his architectural photographs. This general revisiting of historical landscape photography led chronologically to the work of the New Topographics contemporary landscape photographers, whose work is discussed in the Literature Review.

Maps and Mapping

The desk-based research included extensive and detailed study of Swiss and Italian maps (as discussed earlier, the chosen field of study for the research project was from the Swiss Alps

to Naples). This initial investigation consisted of cross-referencing detailed historical and contemporary road maps with relief maps illustrating topographical data. Comparing and contrasting the two categories of information brought a thorough understanding both the motorway routes and where they converged with either dense urban areas or extreme topographical conditions such as valleys and mountainous areas.

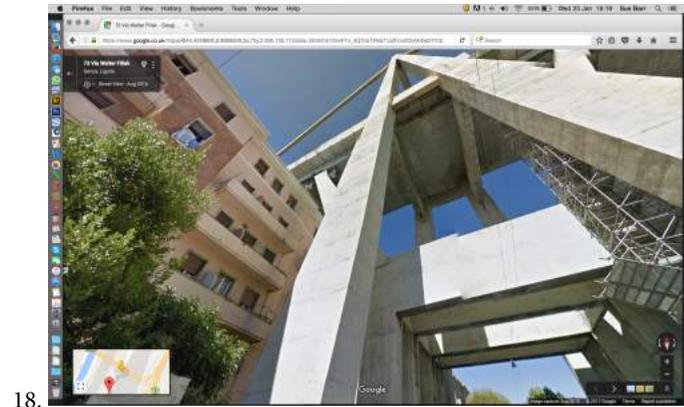
In figure 17 a topographical relief map shows the mountain ranges of Switzerland and Italy, the Alps forming a crescent shape across the lower half of Switzerland extending into Northern Italy and the Apennine range that runs down the length of Italy. I divided this large geographical area into a grid for the purposes of detailed and systematic study. Within these maps I was searching for sites in both urban and rural locations where the presence of the motorway in proximate coexistence with architectural, spatial, topographical elements created a sublime incident. Edmund Burke explained the sublime in terms of its effect on the viewer through the process of perception, and the principle consequence of the sublime, after terror, is in astonishment: 'Astonishment is the effect of the sublime in the highest degree ... (it) is the state of the soul, in which all motions are suspended, with some degree of horror.'³ For Burke, this sublime response could be found in magnitude in building, vastness – of extent or quantity, infinity, obscurity and light.

Inspired by Burke, my research into these maps was defined by the search for locations where there was a potential for a response of astonishment within the motorway architecture. 'Searching for astonishment' may sound hyperbolic but describes what I was attempting to do. In great detail, I examined the maps looking for locations where the ribbon-like nature of the motorway's route across the landscape was interrupted from its path by the surrounding urban context, challenging topography or an unusual or unexpected convergence of the architecture and landscape/urban landscape. This systematic research along the motorway routes highlighted a number of potential sites for further detailed investigation.

The next development in the research involved the use of Google Earth and Google Maps allied with their StreetView option to enable examination in greater detail of these potential case study sites. These programs were able to provide detailed aerial photographs and street-level views of various sites, although detailed aerial data was not always available in remote rural areas or smaller urban areas (at the time of the research). Depending on the detail of the data available, it was possible to move systematically along the length of the motorway, zooming into particular locations for more meticulous observation and closely examining the potential sites in a 360° area. Often the panoramic images were comprised of composite images and so were quite distorted and difficult to read clearly (fig. 18). When researching from either a paper map or on GoogleEarth, the image is in 'plan view', the information is

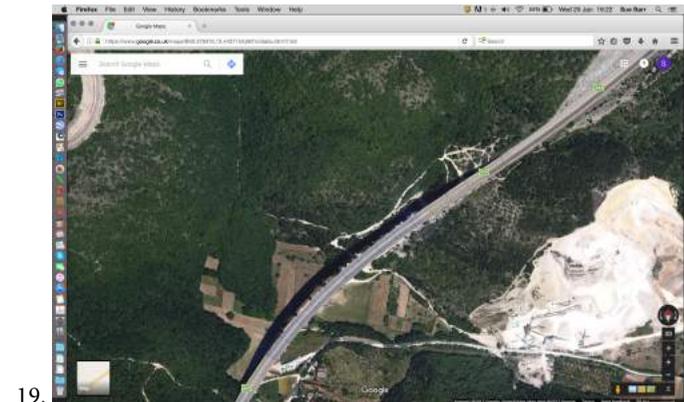


Fig 17.
Map of Switzerland and Italy showing mountainous
topography and motorway routes



18.

Fig. 18.
Google Earth screenshot showing distorted street view.



19.

Fig. 19.
Google Earth screenshot of Viadotto Palude. L'Aquila, Italy, showing topographical information is illustrated on screen in the form of shadows on the landscape

provided from an aerial perspective, flattening any hilly topography. The plan viewpoint that these tools provide was still useful because it displayed the position of the motorway and the surrounding architectural conditions, even if that the motorway was suspended many metres above ground level and so not directly readable.

When alternating between the aerial view and the panoramic street-level view on GoogleEarth, there was a tendency to get 'lost' as it was difficult to preserve a constant northern orientation on the map, resulting in confusion as to where and what was actually being viewed. The blue lines on the map indicated where it was possible to drag the 'pegman' icon to enable the StreetView option within the program, but the pegman often landed somewhere different than was intended so one ended up both figuratively and literally in a side street. This did also occasionally provide an unforeseen potential vantage point for photography. The decision of where to zoom in and when to change to a street-level view of the area were determined by the presence of the motorway in conjunction with apparently complex urban areas. Street-level views were frequently not available outside of larger urban areas.

Rural Sites

Initially the same research methods of comparing map and topographical data and detailed examinations of potential sites with GoogleEarth were employed for both urban and rural sites. However, an additional and differing set of complications applied to finding rural case study sites in the field. Where the extremity of the topography is an important component of potential case study sites, the plan viewpoint was not always useful, as its flatness did not illustrate any information about the site's topography. In these situations it was necessary to compare relief maps conveying topographical information with the photographic information provided by GoogleEarth.

In figure 19 we can see an example of a potential case study site of the Viadotto Palude in the remote Abruzzo region of Italy, as captured by GoogleEarth. The photographs have been taken in sunny weather so topographical information is illustrated on screen in the form of shadows on the landscape, serving as useful indicators of both the topography and the architectures present within this site. These shadows also served as a form of visual short cut to identify changes in topography and the presence of large architectural structures, thereby suggesting the possibility of a sublime condition and a potential case study site. This site appeared to have potential for the project because it is within the mountainous Abruzzo region of Italy and here the viaduct curves and echoes the topography of the mountains and

valleys northeast of L'Aquila. Both the extreme length of the viaduct and the direct relation that the landscape's topography has on the architecture made it a potential case study site.

As I discuss below, within the urban case study sites the main difficulties involved finding an unobscured vantage point from which to make photographs, while within the rural/non-urban locations, access as the most difficult issue. The remoteness of the locations often meant that the motorway was the only road in the area. Without any side road to use to access a vantage point from which to make a photograph, or even any means of exiting the motorway, this frequently rendered sites unphotographable.

Urban and Peri-urban Sites

In figure 20 we can see another example of a potential case study site, where the *A10/Polcevera Viaduct* in Genova crosses high above a residential area. Its unusual concrete structure was designed by the Italian engineer Riccardo Morandi and is one of the earliest motorway routes in Italy. This section of the motorway and viaduct predated the surrounding residential blocks, meaning that any later constructions would have to adapt to its presence. Detailed map examination resulted in the discovery that at one point in its route, while traversing railway lines, the motorway comes into close contact with some residential blocks. From the StreetView panoramas it was possible to see that the legs of the viaduct and the residential block are in such close proximity that they appear to be actually touching. The residential block had been built to fit precisely below and between the legs of the viaduct above (fig.21). These strange and extreme architectural conditions were precisely the type of sites that the research was seeking to discover.

Practice-based Research

Photography 1

I began the research for this PhD by enrolling on an advanced Photoshop course. I knew it was important to improve my Photoshop skills so that I would be able to enhance my photographs in post-production, if this was necessary. At the start of the project it was unclear how the research and resulting photographs would develop. I had not yet found my research question or even knew which motorways I would be photographing. Still, I knew



20.

Fig. 20.
Google Earth screenshot of Autostrade bridge, Genova, Italy.



21.

Fig. 21.
Google Earth screenshot of an alternate viewpoint of
Autostrade bridge, Genova, Italy.

that, as I would be photographing digitally, my Photoshop skills were not advanced enough for what would be required from the project. It was important that I was skilled enough to be able to edit my photographs in post-production rather than employing a Photoshop technician. I wanted to be able to work directly on my photographs, to edit them personally, rather than having to explain my requirements to the technician, which would distance me from the editing process. Also, since I was the originator, the creator of the photographs, it was important that I was able to edit them because I had been present at the time of their making and had experienced the sublime incident that had instigated the making of the photograph.

As discussed briefly in the Introduction, the choice to make photographs using digital recording media and using a Silvestri camera was a very important one. I chose to make the photographs digitally rather than on analogue film because I wanted to have the fullest possible potential to manipulate the files, if I decided it was necessary. Prior to beginning this project, I had only recently started photographing digitally in my commercial architectural work. I had begun to discover that the potential of the digital image far exceeded the analogue photograph, due to the possibilities in post-production. I was not interested in hugely complex post-production editing, in 'rebuilding' photographs in Photoshop, for example, by removing unwanted parts of the architecture, because it was always my intention to make photographs that appeared 'naturalistic' and unedited digitally. My interest in post-production lies in the subtleties of editing, the small changes to shadow areas or reducing highlights or colour casts, which keep the original intention of the photograph but are able to enhance its essence, the 'moreness' of the photograph.

This is a difficult area to precisely define: where is the line between subtle and invasive post-production editing? I decided to answer this dilemma by editing the photographs to as small a degree as possible, so they would appear unedited and naturalistic. Whether a photograph has been edited or not is a potent question in contemporary photography. I do not have a strong pro- or anti-post production position regarding editing. In this project I wanted to have the option to enhance the aesthetic qualities, for example, the light and shadow areas and the colour temperature of the photograph, if I deemed it to be necessary.

The decision to use a Silvestri camera was two-fold. I wanted a camera that was suitable for photographing architecture, in that it was possible to alter the lens position to avoid having to tilt the camera to contain the architecture within the composition, thereby preventing the photograph from having converging verticals. The Silvestri camera is also very small and compact, making it ideal for travelling and photographing in inaccessible locations. Also important in the choice of camera was that it has a ground-glass viewing screen. Rather than

shooting with a digital SLR camera with a small (and restrictive) viewfinder, the Silvestri, like other field cameras, has a large ground-glass screen on to which the image is projected. By using a magnifying Loupe on this viewing screen, the photographic composition can be scrutinised in great deal, thereby allowing for highly detailed image consideration and composition.

I chose to use a standard lens with a 90 mm focal length so that the lens would be as neutral as possible. I wanted the lens to record as closely as possible to what would be seen by the human eye, so that there would be no distortions. It was important that the photographs would be representations of what was seen and experienced at each particular location, which would not be possible to achieve if using either a wide or telephoto lenses due to the optical construction and focal lengths of the specific lenses. The digital capturing of the photographs was made by attaching a Phase One digital back on to the Silvestri camera. This produced large RAW format files of the photographs.

Fieldwork: Site Confirmation

The desk-based research enabled the project's second research method – that of practical field work. By visiting all of the possible case study sites the desk-based research had revealed, it was possible to test the validity of each site's potential sublime architectural situations in relationship to the surrounding spatial, urban and topographical conditions. To return to Genova as an example of onsite fieldwork, the StreetView image of this location was unusually a very accurate representation of what was found in reality within this location. The Polcevere Viaduct towered above the neighbouring residential building, but more extraordinary was the way in which the building adapted to fit around the large concrete pilotis as they grounded at street level.

The accuracy that was found onsite of the previously researched StreetViews of this location, enabled quick decisions on approximate vantage points from which it was both possible and appropriate to make a photograph. Often when I finally travelled to potential case study locations I found that there was a huge disparity between what was illustrated on StreetView and what was found onsite. This difference between the onscreen image and onsite reality was most often due to parked cars, overgrown trees and foliage blocking potential vantage points. Occasionally new buildings had appeared since the last time the StreetView cameras had photographed a site, obliterating the extraordinary architectural and topographical conditions that had suggested potential for a photograph. In these circumstances it was

necessary to seek an alternative vantage point from which to make the photograph or occasionally to relinquish the place as a potential site for the project.

Although the motorway architecture was normally towering above ground level, it did not mean that this was the position in which it was suitable from which to make the photographs. From my desk-based research, I had assumed that my research methods for investigating particular sites would be transferable between both urban and rural sites, but in each type of location, my research method required a slight modification in order to adapt to the particular landscape and spatial conditions. Within urban locations and by moving systematically along the length of every street adjacent to the potential site, exploring every side street, dead-end and alleyway 360° around the location, it was both necessary and possible to see how perspective and proximity altered the viewpoint on the extraordinary architectural conditions that might be photographed. When working in rural locations, the fieldwork procedure was always to drive to the location, normally via the motorway for speed and then to exit the motorway and investigate that particular area via smaller side roads. Frequently, being original, older roads, these existed in close proximity to the newer motorway.

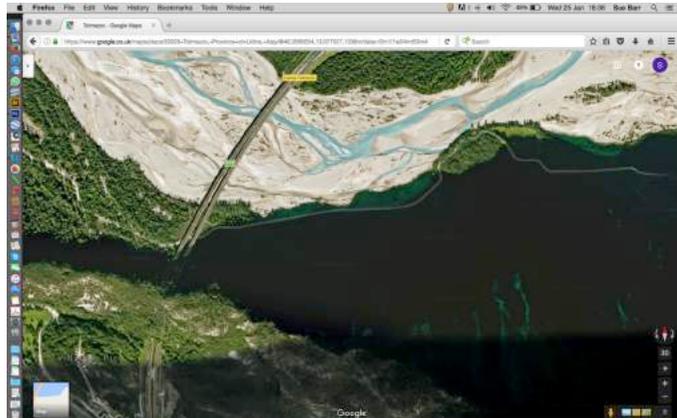


Fig 22.
Google Earth screenshot of an inaccessible location in
Abruzzo, Italy.

This proved to be difficult within the remote Trentino-Alto-Adige and Abruzzo regions of Italy. The remoteness, the extremity of the topography and the motorway being the sole architectural feature were reasons to photograph there, but it was precisely this combination of factors that made access almost impossible. My intention here was to make a photograph showing the motorway's isolation within the landscape, the unexpected existence of the motorway in such a mountainous landscape being the incident of sublime, the cause of the astonishment. When there were no roads or footpaths available in a location, it would be necessary to climb over fences on to private land to access potential sites from which to make photographs. Then a systematic investigation of a rural location was frequently impossible and on a few occasions case study sites were abandoned completely because it was impossible to access a location from which to make the photograph. Here I use the term 'unphotographable' because I was literally unable to make a photograph of the motorway in this location. It was as if this particular location existed only on the map. Without the use of a helicopter and being parachuted on to the ground, I could see no realistic means of making a photograph (fig.22).

The complex relationship between what the eye observes and what the camera can actually record necessitates an extremely detailed search of the potential site for a position from which to make the photograph. It needs to be a position where all the realities of the location – the surrounding architectures and spaces between, and the trees and foliage – facilitate the required aesthetic photographic composition.

Fieldwork in a Landscape Garden

During the early stages of this project, while researching historical landscape paintings, I visited Painshill Park in Surrey and made a series of photographic experiments in formal composition and framing of the landscapes. I was interested in this garden because it had been created in the 18th century based on picturesque principles and was often described as 'painting made real'. I realised it would provide a good opportunity to see a landscape that was a manifestation of the paintings and ideas of landscape composition that I had just been researching. It was constructed between 1738 and 1777 by Charles Hamilton, and was inspired by landscapes he had encountered during his Grand Tour travels in Europe. The garden contained a number of follies, a ruined abbey, a Gothic tower, Turkish tents and a crystal grotto, all requisite components of a picturesque 18th-century landscape.

At this point in my research I had become interested in Capability Brown's 'grammatical landscapes' and I was interested to see how these ideas could be explored within my photographs of the Painshill Park garden.

'Now there' said he, pointing his finger, 'I make a comma, and there', pointing to another spot, 'where a more decided turn is proper, I make a colon; at another part, where an interruption is desirable to break the view, a parenthesis; now a full stop, and then I begin another subject'.⁴

In a series of photographic experiments where I tried to adhere to the picturesque principles the garden was displaying, I composed my photographs using the architectural elements and features of the physical landscape as they were designed to be viewed by the audience. For example, I placed the Turkish tent at the top of the photographic frame and used the curves of the lake to lead the viewer through the space of the composition (fig.23).

The garden was designed so that visitors would experience particular views of specific 18th-century picturesque features as they moved through it. Their journey was designed so that by crossing the Chinese bridge and walking towards the grotto they were afforded views of the entire garden and were experiencing the 'curated' views the garden's designers had planned. I found these compositional experiments at Painshill Park to be very useful. By making photographs of a landscape where particular areas of the garden had intentional visual connections with other areas, I was exploring rules of aesthetic composition. I made photographs where the composition adhered to the aesthetic principles of both the 'rule of thirds' and 'rule of odds' within my photographs (fig.24). I also made a number of photographic experiments where I purposefully ignored the suggested compositions the



23.



24.

Fig 23.
Painshill Park Landscape Garden, Surrey.
 Photograph showing curves of lake to lead viewer to the Turkish tent at the top of the hill
 Photo: Sue Barr

Fig. 24.
Painshill Park Landscape Garden, Surrey.
 Photograph showing composition adhering to rule of thirds
 Photo: Sue Barr

Fig. 25.
Painshill Park Landscape Garden, Surrey.
 Photograph showing centered composition
 Photo: Sue Barr



25.

garden presented and actively placed architectural and landscape features in the centre of the frame. By subverting the expected views of the garden, particularly within the long, expansive photographs that showed the entirety of the landscape, I was attempting to understand how architectural elements related to each other, or not, over a large distance. I wanted to 'abuse' the suggested landscape compositions that were present, in attempts to understand where the parameters of 'good' and 'bad' compositions. The results I achieved were helpful, particularly in my understandings of positioning elements within the photographic frame.

Within contemporary photography, the use of historical rules of composition, in particular the rule of thirds (sometimes called the Golden Mean) has become unfashionable. There is a trend towards placing the object of attention or the subject of the photograph within the centre of the photographic frame or photographing architecture from the position of frontal elevation rather than dynamic or perspectival compositions, which is a more modernist approach to composition (fig.25).

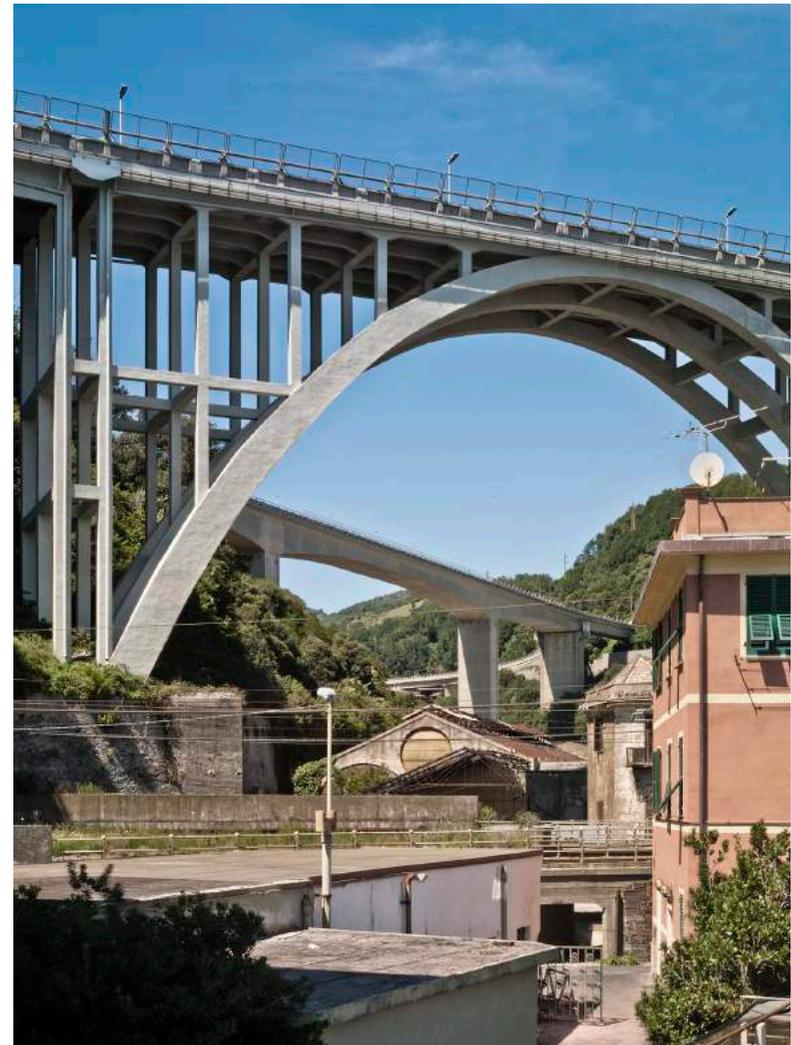
Fieldwork: The Sublime

The last type of research is into the photographic process itself. The systematic procedure of seeing, composing and making the photograph became a transferrable method that was applied to each of the case study sites being investigated. It was also routinely used to test if the sites were successful in terms of them sites places of the sublime. In this process I actively use and abuse the precise meanings of particular words for my own purposes, such as 'look' and 'see', 'make' and 'take'. Semantic differences between meanings may be subtle but are, I argue, relevant for my explanation and descriptions.

Informed by earlier site research, I travelled to the particular location to undertake the process of making the photograph(s). Before the photograph is composed in the viewfinder or the camera's technical controls are set and the photograph is made, an extended period of observation (seeing) of the particular site must be undertaken. Although the prior research I have undertaken suggests that a particular location is a potential case study site, it is always necessary to explore the site fully to discover the realities and unknowns elements of the site. It is here, during this period of observation, that the distinctions between 'looking' and 'seeing' are found. For the purposes of clarification, I will use my case study photograph *Via Pietro Paolo Rubens* to discuss these ideas further (fig.26).

On initial observation the site is extremely complex. It is the point where a motorway, river, train track and minor road meet and it appears to contain all the necessary spatial and

Fig. 26.
Via Pietro Paolo Rubens. Voltri, Italy. 2013
Photo: Sue Barr



architectural complexities with which to make a photograph. With the initial viewing of the site, a rough approximation of where the edges of the potential photographic frame will visually cut through the site is apparent. This particular site is large, the space (consisting of the spatial relationships, visual depth and perspectives that the photograph will roughly contain) is approximately 300 square metres. The site retains an intensity, both within its physical architectural complexities and proximities and also in the visual aesthetic intensity of a potential 'photographic space' that dissipates outside a certain area of the site.

The site is bordered on its southern edge by a small road, making the site almost theatrical in its spatial configurations. This small road running parallel to the sea is like the front edge of a stage. The photographer is observing the site from the position of the fourth wall, similar to the position of an audience in front of a proscenium stage. Due to the complexities of the train track and river, the site is only accessible from one side of the site. It is at this point, when the site is being first observed, that the word 'look' is appropriate to use in relation to the visual analysis being undertaken. As well as technical camera considerations of lens choice, aperture etc, general observations are being made here of the dimensions of the architecture, direction of the light and extraneous elements to be excluded from the photograph. This period of 'looking' gives the initial information necessary to begin composing the photograph. At this point in the photographic process when the camera is assembled, the process of visual analysis moves from a place of 'quickly looking' to one of 'slowly seeing'. The architectural and visual complexities of the site both demand and require an extended period of observation to be able to really see the site, to be able to successfully read the structural and spatial relationships of the architecture, to understand how the light and shadow work within this area and how, by shifting one's position/camera position, these relationships can subtly change.

Within the dictionary the words 'look' and 'see' have very similar definitions, and the thesaurus has words like 'glance', 'observe', 'view' and 'regard' for both entries. For the purposes of this discussion I argue that the precise differences between these words are vital and directly relate to the process of 'making' a photograph. To look suggests a brevity of activity, a brief glimpse, a glance or a peep, nothing that is undertaken for a long time. However, to see suggests a level of revelation or understanding. To slowly see a particular thing or in this case, a place, rewards the viewer with a greater degree of knowledge or understanding than is possible from quickly looking, or to quote Henry David Thoreau, 'The question is not what you look at, but what you see'.⁵ It is here that I believe this important distinction between these two words is manifest.

When we see the *Via Pietro Paolo Rubens* site, initially we acknowledge its visual and

architectural complexities. We can read (see) the different forms in front of us, the tangled mess of converging infrastructures, differing architectural levels and perspectives – elements that we are aware of at first look but their complexity means that they cannot be fully deciphered immediately. Edward Weston said that photographers need to learn to see photographically;⁶ by this, I believe that he meant developing the ability to see through the visual noise, disorder or chaotic forms present in a location, to discover (see) the inherent potentials of the photographic composition. So what exactly do we see within this site, why are we interested in it? In Chapter 5 I discuss in greater detail the definitions and causes of the sublime that I have identified in specific sites which have become qualifying criteria for the making of photographs. The main visual elements within the photograph, and the reason for choosing this particular site in which to make a photograph, is due to its extreme vertical and horizontal architectural density. It contains the criteria of greatness of dimension, infinity and obscurity – all manifestations of the sublime the project is searching for.

At ground level the site contains a number of complicated architectural spaces created by the concrete pilotis of the motorway architecture overhead. They have to respond to the differing levels and tightness of the valley's topography and river in the positioning and grounding of their structural supports. The local road, which rises up from ground level to traverse the railway line below, is also supported by a series of concrete pilotis located on the riverbank. The density of the site extends vertically too, due to the bridges that traverse the site at a high level; the presence of a number of roads at the back of the site that follow the contours of the hills; and also by the intricate structural engineering of the dominant bridge, which provides a visual intensity at an elevated level within the potential viewpoint/frame/photograph.

The site contains architectures that expand beyond our viewpoint; the topography of the site means the architectures extend into the distance. For Burke, infinity and greatness of dimension – 'the eye not being able to perceive the bounds of things' – were major causes of the sublime.⁷ The density and complicated juxtapositions of the variety of architectures present within this site make it very difficult (what Burke would describe as obscurity) to read this group of complex spaces clearly, though it is debatable whether any passing members of the public would even stop to consider the aesthetic qualities of this particular site, such is its chaotic visual appearance. As a place of intersection of the varied transport infrastructures and atypical spatial configurations, it defies our preconceived ideas of how such intersections should be. The proximity of buildings (regardless of their apparent dereliction) to motorway pilotis and train tracks illustrates spatial configurations and usages that would be difficult to find within the UK. The dominant motorway archway that curves through the top half of the site (which will act as a visual frame within the potential photograph) 'lands' at ground level in

extreme proximity to a two-storey building, and from certain angles appears to grow out of the building itself. Such factors of proximity and density combine to create an extraordinary site and one that contains the sublime elements the project is researching.

From the forward position within the site, if the viewer makes even a small shift in their position from left to right, the effect of perspective changes the way that the differing architectures within the site relate to and visually overlap each other. Each shift of position presents a new series of complicated relationships for the viewer to decipher. It is the ability to decipher these spatial and structural relationships that Weston meant when he argued that photographers had to learn to see photographically. The ability to see more than a dense visual jumble and to know where to position the four edges of the viewfinder's frame is only revealed to the photographer after an extended period of time in examination of the site. Without going so far as to suggest a form of alchemy, when one spends an extended period observing exactly how the physical architectures intersect on the site, how the spaces between the buildings and those below the motorway pilotti relate spatially with each other, the four edges of the frame begin to find their location within the site as the potential shape of the photograph.

Photography 2

Making Photographs, not Taking Photographs

I was now ready to begin the process of 'making' the photograph, but another semantic discussion is necessary first. Most often the verb 'take' is used in relation to photography – to 'take' a photograph. When 'taking a photograph', the photographer is capturing a slice of the reality occurring at that moment in front of their camera, through whichever combination of lens, aperture and shutter speed the camera is set to use. I am not arguing that my photographs do not capture the reality in front of the camera lens. Here again, similarly to the earlier discussion of the differences between looking and seeing, an important semantic and conceptual difference exists between the 'taking' and the 'making' of a photograph.

While it is customary to use the term 'taking a photograph', for my purposes the term 'making a photograph' is more appropriate. Ansel Adams said that 'You don't take a photograph you make it...' To make a photograph, I would argue, suggests a greater degree of involvement by the photographer in the photographic process, through conceptual pre-visualisation of the image, the extended period of composition on site and also the use of

post-production manipulations, in order to fully realise the photographer's desired aim for the image. These factors combine together into the eventual production of a work of art, ideally.

At this point the concept of photographic intention enters into the discussion. As I have described, and it can be found in the majority of my case studies, the site in which I wish to make the photograph is an extremely complicated and visually disordered one (noting that such challenging photographic conditions are at the centre of the PhD research). Janet Malcolm has written about the 'formlessness, rawness, clutter, accident and other manifestations of the camera's capacity for imposing disorder on reality ...'.⁸ I would disagree, as I believe that photography has an ability to impose (visual) order not disorder on a scene, and that through the photographic framing of a subject we are able to 'see' it more clearly than before. My discussion above of the *Via Pietro Paolo Rubens* case study is an example in point. As described previously the site is chaotic, on first glimpse so ugly and banal as to warrant no further investigation. Through the coming together of a variety of architectures and spatial conditions via the parameters defined by the photographic frame in the making of the photograph, it is possible to reveal an incident of the extraordinary, even arguably something beautiful.

It is within this situation that the differences between the 'taking' and the 'making' of a photograph are at their most apparent. If one were to 'take' a photograph of the *Via Pietro Paolo Rubens* site, the process of 'taking' the photograph, would only serve to perpetuate its apparent visual chaos, resulting in the photograph accentuating the spatial formlessness. The 'taken' photograph would illustrate what the casual viewer would observe – that of a site devoid of any aesthetic merit. In the 'making' a photograph of the site, the photographer commits to invest a sustained engagement and commitment to the site, both in the observation, pre-visualisation and post-production of the photograph. The photographer is making an image, salvaging a photograph from an apparently unphotographable site.

This difference between 'taking' and 'making' is further illustrated when considering the differing photographic practices of the documentary photographer Garry Winogrand and artist Jeff Wall. Winogrand obsessively prowled the streets of New York in search of his photographic subjects and rejected all intellectual debate over his work, claiming 'I photograph to see what things look like photographed ...'.⁹ By contrast, Wall spent over a year in search of the perfect location in which to photograph, he then auditioned actors to furnish and live in the apartment he had rented specifically for the photograph, all before ever releasing the shutter.

The Viewfinder: Prefiguring the Photograph

At this point in the photographic process there is a move from conceptual consideration and observation of the potential photograph to the actual construction of the image. Before moving to the important discussion of framing the image, it is useful to briefly mention the place of the large-format viewfinder within the photographic process. In her essay 'Photography's Discursive Spaces; Landscape/View', Rosalind Krauss discusses the 19th-century fashion for stereographic photography with particular reference to the actual stereoscope equipment itself. She discusses the viewer's experience of using a stereoscope:

The viewer's own ambient space is masked out by the optical instrument he must hold before his eyes ... The apparatus of the Stereoscope mechanically focuses all attention on the matter at hand, and precludes the visual meandering experienced in the museum gallery as one's eyes wander from picture to picture and to surrounding space.¹⁰

Here, the photographic image is seen in perfect isolation and any other surrounding and extraneous information is eliminated. This experience using of a stereoscope viewer is comparable to that of observing the photographic image projected on to the ground-glass screen of a large-format camera.

An important factor here is the issue of isolation; both of the photographic image and also of the photographer. When using smaller format cameras the eye is positioned directly to the viewfinder. Here the degree of difficulty (even with experience and bright lenses) of seeing the image as projected on to the ground-glass screen necessitates a slowing down, both conceptually and actually, of the photographic process. The black viewing cloth eliminates all exterior details and the photographer temporarily inhabits a world where the only view is that projected on to the glass screen, which necessitates closer interrogation by the magnifying Loupe. Both the black viewing cloth and the Loupe further intensify the conceptual processes described earlier – that of seeing the photograph (figs.27 and 28).

The camera's viewfinder is the ideal medium to facilitate the 'slowly seeing' of a site. The visual frame provided by the viewfinder allows one to really contemplate the view that is presented. The boundaries of the viewfinder act to concentrate attention to the architectures framed within it, allowing precise consideration of the relationships between these architectures and their accompanying spaces. By shifting the viewfinder to another position, however small the shift, the frame again changes, allowing for another scene to be scrutinised closely. Without the guiding frame of a viewfinder, the eye is freer to wander around the site, although it naturally gravitates to the centre of the scene. Unless one commits to an extended



27.

Fig. 27.
Ground glass viewing screen on camera .



28.

Fig. 28.
Magnifying loupe used for focusing image on ground glass viewing screen.

time period for observation, this freedom to observe a larger view can often impede one's ability to comprehensibly see (read) a site, as the eye is more precise when working within the parameters of a viewfinder.

Framing the Photograph

The last and most important stage of making a photograph is the precise visual framing or composition of the photographic image. A painter, even when painting from a real-life scene, does not have the same problem of exclusion to deal with. They are free to simply ignore a particular element of the scene, and can employ 'artistic license' to simply avoid reproducing it within their canvas. For the photographer, particularly when photographing architecture, there is a constant negotiation between what is to be included or excluded within the scene; the decision of where the frame starts and stops is one of constant negotiation.

The photographer's frame cuts into what they see through the lens; it takes a section of this reality for the purposes of making the photographic image and therefore has to deal with all of the elements it contains. The photographer's primary decision is what is inside and what is outside the frame, the borders of the photograph defining what is seen or hidden within the image. This in turn has a profound effect on the photograph. In the case of architectural photography, the dominant object (architecture) within the frame most often becomes the subject of the photograph; again, it is as if the building were the person of whom the photographic portrait is to be made. Within this project, the task is not solely to make a photographic portrait of the dominant, primary architecture (the motorway) within the scene. It is, more importantly, to explore the relationship between the protagonist and all the supporting characters within the photograph. The motorway, its surrounding architectures, and related spatial conditions and proximities are combined through the curated construction of the photograph that explores and records the sublime moment.

Exhibition as Research

In February 2014 I was offered the opportunity to exhibit some of my PhD research photographs at the Architectural Association (AA). I used this opportunity, and the freedom I was given to display the photographs however I wished, as a chance to test my ideas for reproduction and display of my research project photographs.

The Front Members' Room gallery, on the first floor of 36 Bedford Square, is a Georgian grade-I listed room, complete with stuccoed ceiling and large chandelier. When thinking of how to display my photographs within this room I had a number of ideas. Initially I considered constructing a series of large piloti-like structures within the room, similar to the concrete pilotis of motorway architecture that feature frequently within my photographs. The intention for this construction was to enable the pilotis to break up the 'white cube' nature of the inevitable white-painted gallery space. I decided to reject the apparent neutrality of this type of space for my installation. The Front Members' room is nearly always painted white but I wanted my exhibition to be closer to a photographic installation, where the entirety of the space part of the exhibition design, rather than choosing for the walls to become invisible, which making them white would have done.

The physical structure I was considered building within the room was for the purpose of breaking up the uninterrupted visual flow of the gallery walls, thereby necessitating the grouping of images together into a number of series or narrative collections, rather than a neatly hung line of photographs. I wanted them to be displayed so that they would be seen as being part of a larger series, rather than as individual photographs. Naturally, they would also be read individually but I wanted the viewer to be encouraged to see them as part of a larger narrative too. This was in part because they were just a small selection from the project, so I wanted there to be a sense within the exhibition of a further narrative continuing from this small selection, indicative of the lengthy research.



Fig 29.
The Tribuna of the Uffizi. 1772-77
Johan Joseph Zoffany. Royal Collection Trust, Britain

IMAGE REDACTED FOR COPYRIGHT REASONS

Unfortunately the construction of the pilotis was not possible because preservation of the room's grade-I listed status prevents any structures from touching the ceiling; therefore it would be extremely difficult to build a structurally safe freestanding construction. Instead, I began to consider other ways to turn the space into a photographic installation without physical constructions. My inspiration for the exhibition display came from the painting *The Tribuna of the Uffizi* by Johan Zoffany (1772-77) (fig.29). This painting illustrates the Duke of Tuscany's collection of paintings in the Tribuna Room within the Uffizi gallery in Florence. The room and the paintings within it are real and Zoffany also includes many real people, who as Grand Tourists would have found themselves in Florence at the time of the painting's creation. I was interested in Zoffany's painting because of the arrangements of the art it depicts; its 'salon style' installation creates connections between images through their proximity on the gallery wall. This massing of imagery to fill the gallery wall grew as an idea to explore within my exhibition, as I wanted my photographs to be hung to recreate the intensity and massing of images within the Zoffany painting.

I was also interested in experimenting with the use of colour as a way of subverting the white-walled tradition of photographic exhibitions and create instead a more immersive installation experience for the audience. It also became another means of curating a room with listed

building status. I did not want it to become a historical pastiche of what a Georgian room would have looked like, but I did intend to use colour as a subtle reflection of its previous life. I was also interested to explore the potential of using darker colours on the walls as a way of making the space much more intimate and subjective, rather than the objective clarity of white. I settled on a dark-grey colour, which I felt would give this sense of intimacy within the space. This colour was dark enough to appear almost black in the shadow areas of the room, and had enough depth to create a contrast in the parts of the room that receive direct sunlight. The wall from floor to ceiling, including the window shutters, skirting board and dado rail were painted this colour. (The ceiling had to remain white to adhere to the room's listed status.) The choice of dark grey was also inspired by the artist Thomas Demand's exhibition at Mies van der Rohe's Neue Nationalgalerie in Berlin. Here, Demand's work was hung on top of dark-grey curtains, which appeared to make the artworks float from the background as if they were actually large windows. They also broke with the modernist dominance of the space, in a 'need to vary the rooms' in order to emphasise the temporary nature of exhibiting and simultaneously mark points worth remembering'.¹¹

For the wall containing the chimneybreast, I chose a contrasting dark green. It was important to have one wall in another colour to juxtapose against the grey and create a space with an intentional aesthetic. If all the walls were painted in the same dark grey, it would result in them becoming invisible in the same way as if they had been painted white. The intentional visual disruption of a dark-green wall was also useful as a method of distinguishing one photograph above the rest. The photograph that I chose for this wall was *Via Domenica di Roberto* (fig.3), for a number of reasons. Since it is one of the few panoramic photographs I have taken within this research project, I wanted to draw attention to its different format. Beyond the spatial reasons, the aesthetics and intentions of this photograph encapsulated the intentions of the research project so far. My project had been searching for incidents of sublimity within the motorway architectures, and had culminated in this photograph that I felt was the most successful of the research project to date, so elevating this image above the others on a wall of a different colour was appropriate. I judged this photograph of a site in Naples a success as it conveys the extremity of the light conditions (areas of dense shadow and almost blinding highlight) along with the almost threatening intensity of the motorway architecture.

The next direct intervention within the space concerned the lighting. Again for conservation reasons, the original wooden window shutters are very fragile and cannot be closed, so it was not possible to entirely darken the room as I had originally hoped. The dark grey of the walls had the effect of substantially darkening the room so closing the shutters was not as essential as I had first thought. It was necessary though to find a way of lighting the photographs, as

without direct light they would not glow in the way that I had intended. As it is not possible to hang track lighting from the ceiling, in the usual method of lighting artworks, a form of steel bracing was used. This structure straddled the width of the room just below the listed ceiling in two different parts of the room and allowed spotlights to be hung from it, six illuminating one wall and one illuminating the chimneybreast. For reasons of economics, black theatrical spotlights were used to focus precise and individual lighting for each of the photographs. Although this lighting system was not as 'invisible' as a standard, unobtrusive gallery lighting system, its obvious presence, even high in the room near the ceiling, created a 'dramatic' atmosphere, which in turn emphasised the installation-like experience of the room. The final intervention, again to make the space more intimate, was to place two large leather sofas in the gallery. Their inclusion made the gallery feel more welcoming and almost residential again; and encouraged the audience to remain longer in the space than they might normally have done.

The most difficult curatorial choice involved selecting which photographs to exhibit. The size of the two walls on either side of the chimneybreast made it too difficult to display work on them and the gallery's double doors on the adjacent wall prevented it from being useable. This left the north wall, above the dado rail and directly opposite the chimneybreast, available to be used. Due to prohibitive cost implications with large-scale photographic printing and Perspex mounting, at this stage in my research project I decided on a dimension of 110 x 140 cm for printing my photographs, which meant that six photographs could be comfortably accommodated on the main gallery wall.

I had decided early on in the planning process that I did not want the photographs simply hung in a line on the gallery wall; instead I wanted them to be presented in the form of an installation. By this I meant that the photographs could be read by the audience as individual images and also as a larger group. This idea necessitated that the images chosen would contain complementary compositional shapes so that when they were hung next to each other on the gallery wall, their internal compositions would lead the viewer's eye from one photograph to the next. Therefore, the photographs selected had to be free of any visual obstructions to this fluid reading. I decided to hang six photographs in two horizontal lines with three photographs on each line; two horizontal format and one portrait format on each line. This created a rectangular space on the gallery wall, again suggesting that the photographs were both individual and part of a larger narrative whole. The white borders on the photographs prevented them – particularly within the darker images – from disappearing into the grey background, and, importantly, highlighted the 'frame' of the photographic composition. The white border signifying the four corners of the photograph emphasised the photograph's composition and representation of the architecture.

As can be seen in figure 30, the two portrait-format photographs acted as a visual punctuation at the beginning and end of the larger photographic group, allowing a pleasing asymmetry for the remaining four photographs. The dominant compositional forms of the motorway architectures that were illustrated within each of the six photographs had elements within them that allowed the adjacent photograph on the gallery wall to 'visually link' to them. The architecture within the photograph on the top left of the group took the form of a large sweeping canopy-like structure above a row of small garages, and this led the eye from the top left of the photograph to the bottom right of the composition. This in turn then led naturally into the adjacent photograph in the middle of the top row on the gallery wall, where the motorway architecture started in the bottom left of the composition and rose up to the top right of the photographic composition. This visual line of architecture finally ended in the third portrait format photograph on the top row of the gallery wall, where the motorway architecture appeared to continue across the top of the composition.

This fluid compositional structure within the photographs continued below in the second row of photographs on the gallery wall. The overall effect of the six photographs was that the motorway architectures contained within them a continuous form that flowed back and forth through the images and carried the audience's eye with them. A further two photographs were hung on the chimneybreast and on the east wall, between the windows (fig.31 and 32.). These were still part of the gallery installation as a whole, although hung individually. Alongside the photographs I exhibited two antique maps, of Italy and Switzerland, found in the Royal Geographical Societies map archive, the date of their production, c.1750, concurrent with the Grand Tour. Compared with contemporary maps they were slightly inaccurate, national borders were in different places and, more importantly, the actual shape of the countries, particularly Switzerland, was different to that represented on modern maps. Their inclusion within the exhibition was still important as inaccuracies revealed the slowness of travel then as opposed to the speed of travel today. On top of these maps I superimposed an overlay of contemporary Swiss and Italian motorway networks. The juxtaposition of the historical map with the contemporary infrastructure network showed the audience the connections to routes of travel throughout history and also brought an understanding that these same routes now formed the basis of modern motorways networks.

The exhibition also required a short introductory text to explain its purpose and contextualise the photographs within a particular framework, that they were not simply photographs of motorways but that they illustrated specific research into incidents of sublimity within motorway architectures from the Alps to Naples. The text was difficult to write because it was necessary to limit the word count to approximately 180 words, so that



30.

Fig 30.
Exhibition at the Architectural Association. January 2014.
Installation view showing six photographs hung on north wall.
Photo: Sue Barr



31.

Fig. 31.
Exhibition at the Architectural Association. January 2014.
Installation view showing photograph on east wall of gallery.
Photo: Sue Barr



32.

Fig. 32.
Exhibition at the Architectural Association. January 2014.
Installation view showing photograph over fireplace and 18th
century maps.
Photo: Sue Barr

the audience would be able to read it comfortably.

The exhibition was an extremely beneficial process to undertake at this point in my research project, to test if my research and photographs were addressing the questions I intended. This was the first time I had publicly exhibited these photographs and it meant that I was forced to really consider what the project was examining. I was interested in the audience's response to the work and how they would react to a more unorthodox installation. The response was very positive and the audience generally understood the project's investigation of the sublime. Upon reflection, I decided that large-scale photographs were not the appropriate format to pursue for the photographs. Aside from the issues of cost and transport related to making such prints, I realised that I wanted the audience to engage with my photographs in a more intimate way and large-scale prints necessitated a more distanced viewing. The ideas I had had prior to the exhibition regarding the reading of the images as a group with an overarching narrative collection remained, but I saw that large photographic prints meant that the people generally stood in the middle of the gallery space to view the group of photographs as a whole, rather than moving forward and interrogating each photograph individually.

Within contemporary photography, large-scale prints have become the standard means of reproduction, the default presentation scale for photographs. I was interested in creating a contrast and tension between the depiction within the photographs of the large-scale architecture and a smaller scale of reproduction, to instill a sense of rapport between the audience and the photograph. I wanted the viewer to have to physically engage with the photographs closely, in the way that only small-scale images would require. This would emphasise the feeling of discovery within the photographs, and the sublime incident within the architecture being revealed to the audience.

Selecting and Editing Photographs

To begin the final selection process I made a 6 x 9 inch print of every photograph I had made during this research project, which created a 4-inch-high stack of over 200 photos. I wanted to have a copy of each one so that I could properly assess my progress and have an overview of how my photographic practice had evolved and developed over the duration of the project. As is normal when working on photographic projects over a number of years, I had developed affection for particular photographs and although the temptation is always to retain these within a project's final selection, I have resisted this impulse.

With such a large number of photographs, the first requirement was to edit them down to a

manageable number. By making constant reference to the project's aim of photographing incidents of the sublime, it was possible to eliminate a large proportion of them immediately. Within my early photographs I noticed they lacked a clarity of purpose within the composition. This was because at the beginning of the project, when I had not yet discovered the use of the sublime classification as motivator within the project, the photographs were too vague. The photographs from this period were also utilising the banal aesthetic without consideration of its aesthetic or relevance, to the project, because the banal was the dominant aesthetic and default position within contemporary photography.

Garry Winogrand wrote, 'Photography is not about the thing photographed. It is about how that thing looks photographed.'¹² This was true of my early photographs. They were more the sublime and the more elaborate explorations of architectural incident. During this early part of the research, because I was lacking a methodological procedure within which to work, the photographs are rather random. This was evident within my digital contact sheets: they did not display a rigorous exploration of any of the sites I photographed. Therefore no results from the early photographic shoots have made the final selection. Once I began to be more confident in the direction of the research I was undertaking, and my ideas and understandings around the sublime as an aesthetic categorisation became more clear and defined, I noticed that my photographs had improved exponentially.



Fig 33. Screenshot of digital contact sheet showing groupings of photographs with repetitions of angle and composition.

I began to group the photographs together into different typologies, looking for spatial or architectural similarities or comparable features within them, even though they were taken in different locations or even in different countries. This was in order to try to find a methodology for dealing with all of the photographs, a way of curating them into a final narrative or composition. Certain themes and ideas developed within these groups of photos; and repetitions of form and angle of composition became apparent (fig.33). Once the photographs were collected into groups I began to edit out repetitions of composition and multiple versions of photographs that were taken as exposure tests. The next issue that I encountered within the selection was the format of the photographs, whether the photograph made onsite, in response to the architecture and sublime incident. A particular format of framing was required to achieve the optimum photographic record of that sublime incident in that location. Although there were slightly more portrait than landscape format photographs, I decided the consistency of format did not have to be perceived as a problem for the project and continued editing the photographs.

As expected, the photographs made in the later stages of the research project (in response to my discovery of the sublime aesthetic categorisation and understanding of how this was influential within my research), were more successful and consistent in the exploration of

sublime incidents within the architecture than the earlier photographs. I judged this qualification of success as being about whether the photographs successfully explored and illustrated sublime incidents within the location. Did the photograph depict an incident where the architectural, spatial and topographical factors combined to create a sublime incident?

Once I had narrowed the selection of photographs down to a more manageable number, I explored different groupings within them to discover how they worked together. I had previously collected the photographs into rough groupings decided by repetition of form and angle, but now I explored how they worked using criteria including chronology of making, geographical location and collections of urban and rural typologies. I was experimenting with different ways in which to collate and curate such a large collection of photographs, made over both a wide geographical distance and duration of time.

I decided against ordering the final photographic series by geography; in other words, beginning from the Swiss Alps in the north through Italy to Naples as an end point for the series. This was because the photographs would be curated simply by location, which did not engage with the concept for their making, the identification of the sublime incident. It made the final series more about geography than the sublime. I also experimented with placing the photographs into groups, or diptychs, of both complementary and contrasting subject or spatial configurations. I was attempting to understand if a narrative could be discovered by having the photographs presented in pairs, whether this would produce significant results or further the understanding of the final photographs. Ultimately this simply confused the narrative and the aim of the research project. Instead I decided to order the photographs into a narrative that explored and related directly to the identification of incidents of the sublime within my chosen field of study, but one that was not restricted by an adherence to chronology or geography. It was important that the final selection of photographs and the order in which they would be seen depicted a narrative that had a beginning and an end point. I wanted the final series to take the viewer on a journey that reached a conclusion at the end of the series. The fact that the photographs may not have been geographically ordered within the series was not important. All of the photographs were taken within the project's field of study, but for the purposes of the narrative that they were illustrating, a photograph of an Italian mountain location might be placed next to a photograph of a Swiss urban site.

This experiment with varying groupings and pairings of photographs resulted in a final edit of 29 photographs. Within this selection I felt that I had made photographs that successfully illustrated incidents of the sublime within the field of study and also had the potential to work within a larger group collection.

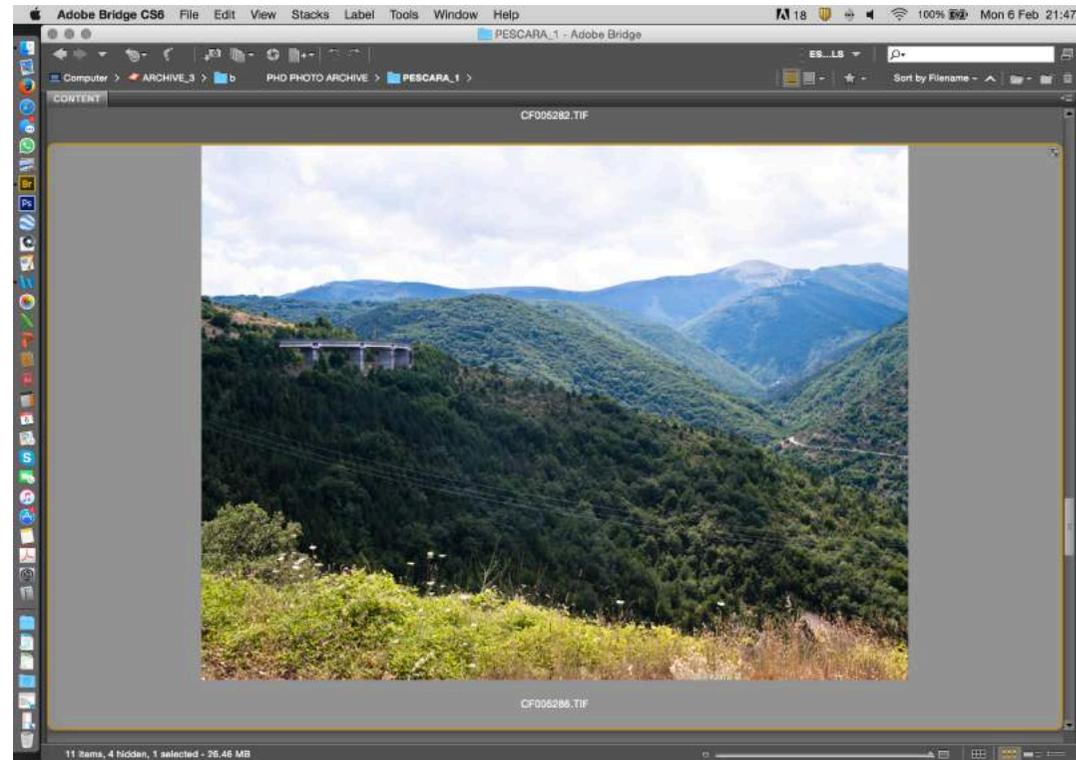
Post-production Manipulation

When photographing digitally, and in particular when making photographs using the RAW file format,¹³ it is necessary to use Photoshop to a greater or lesser extent. Throughout this research project, the question of post-production manipulations of the final photographic series has been considered. Even during the making of the photographs on site, it is an issue I have been aware of. My interest in post-production manipulations has never been in the 'rebuilding' of the photograph, by which I mean removing elements of the architecture that are unsuitable for whatever reason or superimposing additional layers on the photographic image to substantially alter what was present in reality.

Within this project I have engaged with Photoshop as little as possible, only enough to achieve the desired result for the particular photograph concerned. This 'less is more' philosophy towards post-production manipulation is a difficult line to precisely describe or quantify. My intention, as described earlier, was to enhance what is already present within the photograph/digital file, to maintain a naturalistic and not overly manipulated aesthetic within the photograph. My position regarding Photoshop is that if the photograph looks manipulated to an overt degree, then the enhancement has been unsuccessful. I realise that this is entirely subjective and depends on personal taste in regard to the aesthetic qualities of a particular photograph.

The word 'enhance' is understood to mean 'intensify, increase or further improve the quality, value or extent of', and I have used this term as it is an appropriate description of my engagement with Photoshop. My use of Photoshop is similar to the way that a photographer in an analogue darkroom might 'dodge' or 'burn in' areas of the negative, so that more or less light is exposed on to the paper, thereby within the print, selectively revealing or hiding detail. During this project I have manipulated the digital photographic files in two general ways and always with the aim of intensifying the sublime incident: firstly, through the manipulation of the colour tonal palette and secondly, within the exposure values of the photographs with particular reference to shadow and highlight areas. These manipulations can be understood more clearly through the use of specific examples. In the first photograph of the final series (fig.34), my intention was to depict the juxtaposition between the enormity of the landscape and the motorway architecture as a small but significant detail on the mountainside, with the minor road as an aesthetic balance on the right side of the composition. Apart from the motorway and road, there are no other features within the landscape, no houses or signs of human presence. My ambition here lay in the possibility of intensifying the depth of the perspective to emphasise the enormity and emptiness of the landscape and therefore the incident of the sublime within the landscape's domination over the motorway architecture.

Fig 34.
Screenshot of digital contact sheet of *Via Strada Stale 696*.
Torninparte, Italy. 2013



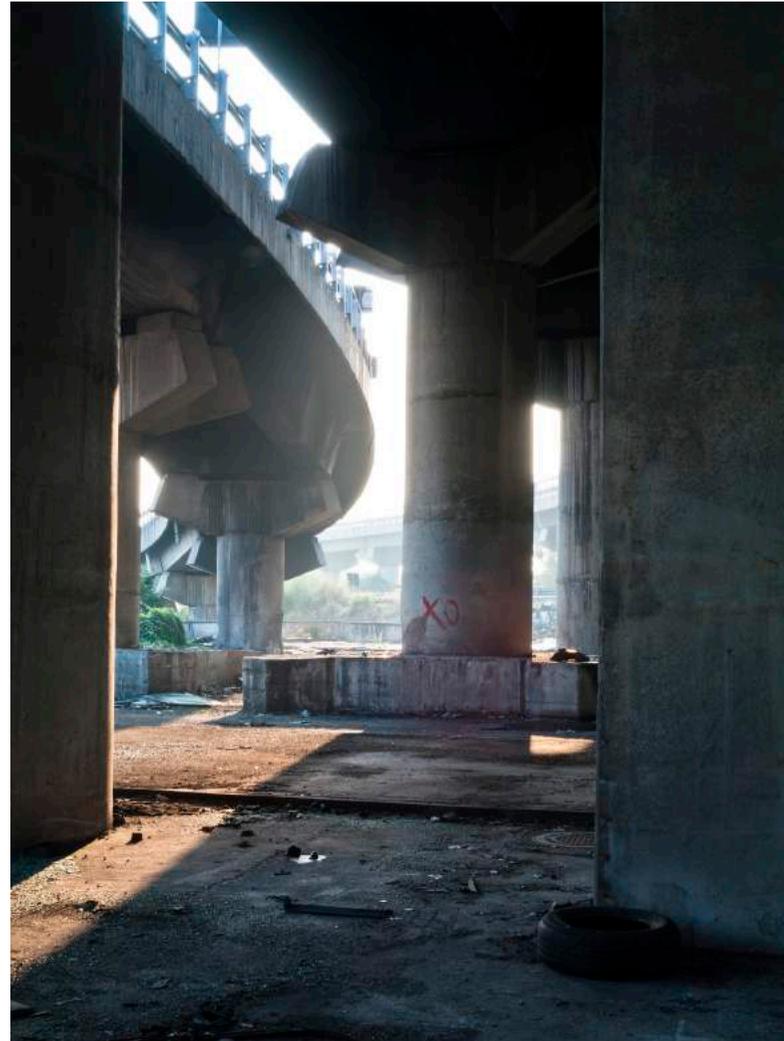
In recognition of how specific colour palettes are used in Mannerist paintings to provide depth with the landscape, the differing shades and tonal values of green through to the blue of the mountains have been intensified to accentuate the depth of perspective within the photograph. The topography of the landscape is naturally divided into shades of green and blue, so the photograph has just slightly intensified this appearance. In contrast with the colour tones of the landscape, the motorway architecture is tonally very cold and has a mainly grey colour palette; by accentuating the colour of the mountain foliage, it visually opposes the grey of the motorway architecture.

I was also interested in enhancing the relationship between the cloudy sky and the shadow areas it produces on the mountains. The shadows emphasise the openness and 'big sky' feeling of the landscape and again endorse the landscape's domination of the motorway architecture. Any manipulations of the sky and clouds are potentially problematic as the threshold for acceptable manipulation of the sky area is very fine. By this I mean that it is too easy to over-manipulate the visual effect of a cloudy sky, thereby making any manipulations overly obvious and losing any subtlety or naturalistic effects. In this photograph I made the smallest possible enhancement to the sky and clouds, just enough to render a small amount of detail and prevent the sky from becoming pure white in tone.

The penultimate photograph in the narrative (fig.35) illustrates another series of subtle but important small enhancements in Photoshop with the effect of again emphasising the sublime incident within the motorway architecture. The photograph is of a dirty and abject site below a motorway, where the extremes of highlights and dark shadow areas create an incident of the sublime, the warmth of the sunlight negating the dark and threatening intensity of the site. Within the photograph were a number of features that I wanted to emphasise through Photoshop manipulations in order to enhance the aesthetic qualities of the photograph and in turn enhance the sublime incident. These included: the red 'XO' graffitied on to a concrete piloti, the green foliage at middle left of the composition, a small pool of oil on floor, staining on the concrete piloti and a general intensification of the warmth in the highlights and darkening of the shadow areas. Small and precise manipulations to the tonal and exposure values of these individual parts of the photograph resulted in an intensification of the sublime

These two examples are indicative of the types of Photoshop manipulations I made to the photographs within the final series. Every photograph was recorded on to the digital media as a digital RAW file, which meant that it had to be opened and saved within Photoshop at the very least, but every photographic file had some small degree of digital manipulation. As I discussed earlier, this post-production manipulation was always related to either the colour palette or the exposure values of the individual photograph. None of my final photographic

Fig 35
Via Vicinale Galleoncello. Naples, Italy. 2013
Penultimate photograph in leporello series.
Photo: Sue Barr



series were 'retouched', involving the removal or replacement of extraneous details. The photographs remained as naturalistic and as untouched by manipulations as possible, to reiterate the parameters I set for Photoshop.

Photographic Output

The exhibition at the AA had been very useful as a testbed for how I wanted to produce the photographs for this research project. Throughout it, I had assumed that the final series would be produced as individual, large-scale prints – similar to the way in which I had displayed my work in previous exhibitions. The prints in the exhibition at the AA were 140 x 110 cm, face-mounted on 5 mm Perspex and framed within hand-welded steel frames.

As stated, within exhibitions of contemporary photography, large-scale prints, at least 1 metre wide as a minimum, has become the default method of display. Smaller-scale photographs and the traditional print size of 10 x 8 inches are reserved for historical or archival works. The work of contemporary photographers within the *Constructing Worlds. Photography and Architecture in the Modern Age* exhibition, Bas Princen and Nadav Kander *et al*, were large-scale as opposed to the archival photographs by photographers including Walker Evans and Bernice Abbot which were exhibited as smaller prints. Exhibition design and curation has also tended towards single-line displays of photographs, with prints following an invisible centred line on the exhibition wall. Some artists, Wolfgang Tillmans being a notable exception, break with this standard form of display and exhibit their work in a number of print sizes and framing methods. As described above, in my exhibition at the AA I had tried to break with this tradition by employing a salon-style exhibition hang, as I wanted the photographs to be read as a part of larger narrative as well as individually. As I approached the end of this research project, I realised that this was not the correct approach for my final photographic series. This change of direction for the final series was due to the way in which I wanted the audience to engage and view the final photographs.

The research project had identified precisely located incidents of the sublime within large-scale motorway architectures, and it was this juxtaposition of scales that I was interested in reproducing within the final series. Rather than reproduce my photographs at the usual large scale, I realised that it was more appropriate to create smaller, more intimate photographs. Large-scale photographs necessitate a particular viewing distance; the larger the photographic print, the further away the audience has to stand to be able to clearly 'read' the photograph. I wanted the audience to engage much more closely with the final photographs, to be physically much closer to the prints than large-scale prints would require.

I was also interested in the contradiction and conceptual juxtaposition of photographs of large-scale architectures being reproduced as small-scale photographs. I wanted the audience viewing the photographs to feel as if a secret was being revealed to them in viewing the photographs. Making the experience of viewing the photographs conspiratorial was more suited to the intentions of the research project's investigations. Through the final photographs the research project was revealing incidents of the sublime that were 'hidden in plain sight' to the audience, and therefore making the print size smaller and more intimate was an appropriate method with which to print them.



Fig 36.
Every Building on Sunset Strip. 1966
Ed Ruscha. MoMA, USA

IMAGE REDACTED FOR COPYRIGHT REASONS

My next decision concerned how to produce the final series of photographs. As well as rejecting the standard large-scale photographic print, I already knew that I did not want to produce the final 29 photographs as individual prints. I wanted the photographs to relate to each other more closely than making them individual prints would allow – even if they were hung next to each other on a gallery wall. Initially I thought that binding the photographs together into a book format would be the appropriate final outcome for the work, but this again would limit how they were read. Binding them into a book meant that the audience could only 'read' one photograph at a time, and this was problematic as I wanted them to be simultaneously individual and part of the longer narrative. I was aware of the oxymoronic nature of this intention, but in considering the duality of my requirements I realised that using a leporello format would resolve this problem. This format was most famously used in contemporary art by Ed Ruscha in his series *Every Building on Sunset Strip 1966* (fig.36), where Los Angeles.¹⁴ The photographs were then printed on to a continuous sheet using concertina folds, which expanded to 25 feet in length when fully opened. I was also familiar with this type of binding in recent exhibition *Cityscapes/Late Summer/Peripheries* by Ulrich Wüst at C/O Berlin.

By utilising the leporello format the audience would be able to view photographs individually and also to see their place within the larger narrative series. I wanted the audience to be able to see both the photographs on either side of the individual one they were observing. Being aware of its position within the series as a whole would remind them that the final photographs were part of a continuous narrative, that there was a progression of instances of the sublime within them. This was because the final series was as equally important as individual photographs and as a group, and to fully understand the final work it was necessary to understand this.

It was important that the photographs were printed with a white border, not just for the ease of binding within the leporello, but because the white border on the print was analogous to the borders of the viewing screen within which the photograph was composed. The white

border signified that each photograph was a precisely composed view of a particular incident of the sublime, the edges of the photograph determining how much the audience was able to view of each specific incident. The option of printing the final photographs in full-bleed format – printing the photograph over the entirety of the paper – was not appropriate as it would not ‘contain’ the individual photographs and would allow the photographs to conceptually blur together.

I had to decide which type of paper to use for printing the final series. From previous projects including the AA exhibition, I have an established method of printing my photographs using the Lambda photographic process. This is a digital printing process using conventional resin-coated paper in either gloss or matt finish. It is an archival printing process, and in collaboration with a professional photographic printer with whom I have a long established working relationship, is a reliable procedure. I felt that this type of paper was not appropriate for the final outcome of this research project. Since the final series was not going to be framed (as is usual with Lambda prints) and would be bound within the leporello, the quality of the paper was extremely important. The prints would have to be on a paper stock heavy enough to have a stability to stand alone as individual pages bound within the leporello, as well as providing the appropriate aesthetic reproductive qualities for the photographs. I chose therefore to move to Giclée fine art photographic printing system, because at 320 grams per square metre (gsm), Lambda paper is not heavy enough to leave unmounted, and the Giclée printing process has a wider variety of papers available, both in surface finish and paper weights available. I decided against using distinctly textured papers, which are frequently chosen by artists when using the Giclée system due to their similarity to watercolour paper, because the texture suppresses fine details within the photographs. I also chose not to use papers with gloss finishes because of the problem of reflection, even though with the Giclée process the reflective qualities of the paper are less apparent.

A final consideration when deciding on a photographic paper is its ability to reproduce black tones. With non-gloss printing papers, it is sometimes difficult to achieve pure black tones because the paper has an imbued flatness, which lessens the aesthetic effect of pure black. I was concerned, especially with the photographs at the end of the final series, that the quality of the black, shadow areas within the photographs might not be printed deeply enough. The aesthetic quality of these shadow areas was extremely important within the narrative series. After making a number of photographic prints on different weight papers and surface finishes, I decided to use Hahnemule Phototarag cotton-based archival paper 500 gsm for the final photographic series. It is a paper heavy enough to be bound within the leporello and sufficiently stable to not need rear mounting for stability and its surface quality was good enough to reproduce the wide variety of colour and detail within my work.

It was then necessary to return to the issue of the leporello, to consider the outer size of the leporello itself and the photographs within it, particularly given that of the 29 images, 16 were landscape and 13 portrait format. This meant that there would be unequal white borders on the prints between the different format photographs. I made a series of small maquettes experimenting with differing canvas sizes and borders for the leporello because I was concerned that the unequal white borders between the photographs might cause a disturbance in the narrative flow of the photographic series. I experimented with reducing the size of the portrait format photographs so that they were equal in height to the landscape format photographs within the series, but this did not work aesthetically as it simply reduced the importance of these photographs within the sequence. I also explored different sizes of white borders between the prints to learn how the borders reduced or increased the relationship between the prints. I needed to find a size of border large enough to frame each individual photograph on the leporello page, but not so large that the photograph would be isolated from the rest of the photographic series. The size of the white border also depended on the outer size of the leporello itself; it needed to be in proportion aesthetically to the canvas size and the size of the individual photograph.



Fig 37.
Leporello maquette

When I decided that the leporello was the appropriate format with which to bind my final photographs together, I assumed that it would be in a rectangular, landscape format. During the early stages of this research project, when I was investigating the historical landscape paintings and the Grand Tour and through my research into 19th-century survey photography, I had encountered frequent references to bound portfolios of maps and photographs. I was interested in this method of book-binding, particularly in the larger sizes of these editions and in particular the tradition of printing portfolios of etchings, as in Piranesi's *Della Magnificenza ed Architettura De' Romani / Osservazioni*.¹⁵ I investigated the history of the page sizes and dimensions, such as quarto, octavo, elephant and atlas, and initially considered making my leporello with one of these larger paper sizes, but mixing landscape and portrait format photographs on a rectangular format paper was problematic aesthetically. These experiments in paper size and dimension led to the realisation that a square format of 60 x 60 cm for the leporello was the appropriate size and shape required. This meant that when the photographs were printed on each page, with long side of the photograph sized to 35cm, it would be possible to centre the individual photograph on the paper, thereby negating the problem of landscape and portrait formats. There would be a slight difference in size of white border when a portrait and landscape photograph were on adjoining pages, but through the maquettes I realised that it did not disturb the aesthetic of the continuity of the final series (fig.37).

1. Streetview is a feature of Google Earth and Google Maps allowing a panoramic view from ground level.
2. <https://www.theguardian.com/culture/2002/jul/09/artsfeatures>
3. Burke, E., Guyer, P. (ed) (1990) *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful*. 2nd edition, Oxford: Oxford University Press p.57
4. Willis, P. (1981) 'Capability Brown in Northumberland' *Garden History* 9.2 (Autumn) p.158
5. http://www.theconcordwriter.com/Thoreau_Quotes.html
6. Weston, E. (1980) 'Seeing Photographically', in A. Tractenberg (ed), *Classic Essays of Photography*. New Haven, CT.: Leete's Islands Books pp.169–75
7. Burke, E., Guyer, P. (ed) (1990) *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful*. 2nd edition, Oxford: Oxford University Press, p.73
8. Maynard, P. (1997) 'Photo Fidelities', in *The Engine of Visualisation. Thinking Through Photography*, Ithaca, NY: Cornell University Press, p.212
9. <http://www.atgetphotography.com/Selection/winogrand.html>
10. Krauss, R. *Photography's Discursive Spaces: Landscape/View*. <http://www.jstor.org/stable/776691> .
11. <http://www.tate.org.uk/context-comment/articles/white-cube-and-beyond>
12. <http://www.atgetphotography.com/Selection/winogrand.html>
13. The RAW file is a digital photographic format similar to that of a film negative, in that it cannot be used as the image itself but it contains all the digital data necessary to make one. It does not use digital compression so is considered a professional format, offering the photographer the best quality possible with which to make the photograph.
14. C|O. Berlin. DE. *Ulrich Wüst. Cityscapes/Late Summer/Peripheries*. 6 February–24 April 2016
15. https://archive.org/details/gri_33125010859946

Chapter 5. Motorways and the Sublime

In this chapter I discuss the relationship of the term 'sublime' to this research project. Contemporary language has completely diluted its 18th-century definitions into a much weaker term, now used as an adjective to describe anything from a cup of coffee to a sunny day. Its usage has evolved into something much closer to the words 'agreeable' or even 'beautiful'. Although the sublime was discussed as early as the third century by the Greek philosopher Longinus, it was not until the 18th century when a number of British writers, including John Dennis and Joseph Addison began writing about their experiences of crossing the Alps that the sublime began to develop as a new aesthetic classification. Discussions about and attempts to define the sublime then were concerned less with its relationship to art (now considered to be inextricably linked) than whether the experience of the sublime affected the individual.

In Edmund Burke's 1757 book *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*,¹ he divides the discussion into five sections and explores at length the varying causes and effects of both the sublime and the beautiful, as separate and distinct classifications. For him, astonishment is the most powerful factor associated with the sublime:

The passion caused by the great and sublime in nature, when those causes operate most powerfully, is astonishment; and astonishment is that state of the soul, in which all its motions are suspended, with some degree of horror. In this case the mind is so entirely filled with its object, that it cannot entertain any other, nor by consequence reason on that object which employs it.²

Burke goes on to list other defining factors: terror, sound and loudness, vastness of dimension, infinity, magnitude in building, light and shadows. Published a few years after Burke in 1764, Immanuel Kant's *Observations on the Feeling of the Beautiful and Sublime*³ provides another discourse on the differences between the sublime and the beautiful. He begins with the definition of the sublime to 'arouse enjoyment but with horror'⁴ but extends his definition by dividing the sublime into three categories: terrifying sublime, defined as that provoking feelings of melancholy and dread; noble sublime, arousing feelings of quiet wonder, and the splendid sublime, where feelings are overcome with those of beauty.⁵ An interesting divergence between these two critiques of the sublime is that for Kant, the mind 'feels itself empowered to overstep the limits of sensibility',⁶ whereas for Burke, the force of the sublime is so powerful that 'all motion is suspended'.⁷

I was interested in the philosophical and aesthetic literature of this period because of the writers' confidence that it was possible to find universal standards and models for the appreciation of beauty and sublimity. In making these apparently empiricist claims, the work of these 18th-century writers provides a framework for testing and reflection upon contemporary thoughts on the sublime. I chose therefore to return to the original 18th-century definition of the term sublime for this research project, since its contemporary usage does not support the necessary definitions that this project requires.

As previously discussed in Chapter 4, the aesthetic classification of the sublime was a turning point for this project; prior to this, I had been searching for an appropriate method with which to look at and make photographs of motorways. The project's initial field of study was so large that a solution was needed with which to both reduce the field of study and also identify particular types of motorways that the project would choose to research and photograph.

My use of the term sublime is influenced by Burke's *Philosophical Enquiry* and in particular his definitions: 'quality of greatness and vast magnitude',⁸ 'pleasure from perceiving objects that threaten to hurt or destroy the observer',⁹ 'Infinity, immensity, grandeur, awe inspiring, a combination of wonder and astonishment, and pleasurable terror'.¹⁰ His identification of the varying causes and instigators of the sublime provided a starting point from which to base my own investigations. His unequivocal definition of the factors he believed caused the sublime provided terms such as vastness, power and infinity that I could use to reflect upon motorways. The sublime's ability to provoke immense reactions within the audience was the pivotal concept. Of Burke's factors, vastness and light were the most applicable to the motorway photographs I wished to produce.

The project began with the problem of how to identify precise locations in which to make photographs of motorways. Using the causes of the sublime that Burke defines, such as vastness, proportion, difficulty and light, I was able to locate a number of 'extraordinary architectural incident(s)' within an otherwise huge geographical area. With reference to these causes, the project was able to identify within the motorway route precise incidents where the motorway, in conjunction with its surroundings, creates a spatial condition that is in some way extraordinary and therefore potentially suitable for making a photograph. It remains to address the question of how precisely this is provoked by a piece of architecture. This discovery of an 'extraordinary incident' within the motorway depends on the convergence of a variety of architectural and topographic conditions. The desk-based research provided approximate locations to further investigate onsite. The exact position in which it was possible to identify these sublime incidents (and therefore make a photograph) was precisely

defined by my response to the motorways I observed; as Vanessa Ryan writes in her essay on the differences between Burkean and Kantian sublimities, the '[s]ublime is not (found in) an object judged but the judging mind'.¹¹

Defining the Sublime

When viewing motorway architecture, the intensity of the response it provokes onsite is the indication of a sublime incident; the response of pleasurable terror as Burke described an experience of the sublime. This may be through the contrast of the thin concrete pilotis and the apparent weight and mass of the overhead structure, which provokes a feeling of jeopardy, a sublime response. The feeling of threat from the motorway overhead creates the sublime incident as the enormity of the motorway above becomes an almost visceral fear.

Within rural sites, the issue of scale is reversed, as the size of the motorway is rendered smaller by the enormity of the surrounding landscape. Often viewed from a distance, the motorway is rendered tiny within the big, open landscape. Here the sublime is found within this reversal of scale: the enormity of the landscape is overpowering, its domination of what we know in itself to be an enormous architecture overpowers the viewer. In the city, the scale of the motorway architecture is immediately visible, the terror of the sublime incident is within its observation. We are immediately dwarfed and threatened by its monstrous scale.

This personal response and precise site identification is again best discussed through the use of a specific example. In figure 38 the extraordinary sublime incident is found at the point where the Polcevera viaduct's concrete pilotis land in extremely close proximity to the apartment block. At one point they even appear to touch. The A-shaped viaduct pilotis look over-scaled and dwarf the apartments; it would appear possible to reach out from the balconies and actually touch the viaduct. This further exaggeration of scale is only more emphasised through the presence of human details; the laundry hanging in the sunshine and the parked cars, so small in comparison to the viaduct that they appear to be toys. My immediate response to this location was one of shock, both from the disparity in scale of the viaduct and the extreme proximity with the apartment block. The shock and awe I experienced when witnessing this site is precisely the response that Burke discusses when he writes 'the mind is so entirely filled with its object, that it cannot entertain any other'.¹²

It is impossible not to look directly at the point where the motorway and apartment block appear to touch, one's mind questioning what exactly it is observing (fig.39). This response when observing either my photograph or the actual site is precisely the sublime,

Fig 38.
Via Walter Filak.
Genova, Italy 2013
Photo: Sue Barr



38.

Fig 39.
Via Walter Filak - detail.
Genova, Italy 2013
Photo: Sue Barr



39.

extraordinary architectural incident the project investigates. The sublime incident would not be present if either the viaduct pilotis were smaller or there were more space between them and the apartment block. The photographic relationship to this sublime incident is found within the precise framing and composition of the photograph. The photograph, and the sublime incident, could only be made with the camera being placed at this specific place within the site. On the south side of the viaduct the trees would have obscured the concrete pilotis; moving the camera's position to the right would have meant that perspective would alter the illustration of close proximity of the apartment block and viaduct, both thereby negating the sublime effect.

In the urban case study sites that I photographed, scale was one of the most imperative defining characteristics of an extraordinary sublime incident. In the rural sites that I photographed there was often a change of emphasis between the motorway, topography and sublime dynamic. The sublime incident found within the urban sites was defined by the motorway's domination over its surroundings; scale and proximity were the factors that identified the sublime within these locations but in rural sites this connection often reversed. Here, the sublime incident was often found in the landscape's dominance over the motorway; the enormity of the motorway (which within an urban environment would have been the dominant factor) was dwarfed by the surrounding topography. It is in this exact incident – the combination of the presence of the motorway and the landscape – that creates the sublime incident. Without both of these being present, the sublime incident would not exist.

The motorway still has to be photographed from a precise position to enable the illustration of the sublime incident. The exact shape of the topography surrounding the motorway needs an aesthetic relationship to the architecture to enable the creation of the sublime incident. In both urban and rural sublime case study sites, concentration is the defining characteristic of the experience for both photographer and audience. The sublime incident being photographed/observed must be strong enough to cause an apparent distancing from other subjects and fully demand the audience's attention. This close attention that the sublime demands is in concert with the 'pleasurable terror' that is also experienced. The sublime response is more than just a temporary distraction from other things, the incident must heighten the photographer's/audience's emotions to a level bordering fear: 'No passion so effectually robs the mind of all its powers of acting and reasoning as fear.'¹³

Human Presence and the Sublime

In the 18th- and 19th-century landscape paintings I discussed in Chapter 3, I discovered that

artists frequently included the human figure within their paintings to suggest scale, the tiny figure accentuating the vast and untamed natural landscape. They also acted as a narrative vehicle, the figures encouraging the audience to identify with the sublime experience depicted in the painting. In Philip De Louthembourg's *Avalanche in the Alps* (fig.14) three small figures are depicted cowering in fear of the approaching avalanche. What better way for the audience to identify with the fearful avalanche than by forcing them to place themselves (conceptually) within its path?

The photographs I have made for this research project rarely contain people, and the lack of any human presence within architectural photography generally is in itself a long-running debate. While making the photographs for this project I have never purposely sought to avoid photographing people. I have often photographed in what could be potentially crowded urban areas, but preferential light conditions has meant making the photographs around 5am, which has limited the numbers of people I encountered. In some cases there have been people present when I've been photographing, but the long exposures that the camera necessitates has meant that they have disappeared from the final photograph.

In the early stages of the project I debated how it would be possible to include people but I decided against the manufactured approach of Photoshopping people into the final photographs, choosing instead to reference the human presence in more subtle ways. Within my photographs the human presence is found within the details of the photograph – the washing hanging from the windows, or the piles of rubbish by the side of the road. In the photographs I have made of both urban and rural environments, however remote the location, they are never far removed from evidence of people. Even near the top of the Gottard Pass in Switzerland, in an apparently inaccessible landscape, a Warholian yellow banana has been graffitied below the concrete pilotis, reminding us of the presence of a human hand (fig.6).

The Relationship Between Beauty and the Sublime

This examination of the relationship between motorways and the sublime must extend to include a discussion of beauty, particularly with reference to the audience's reaction to the photograph. As an aesthetic category, the sublime is easier to define and arguably less complicated than that of beauty. For Kant, the beautiful was 'a pleasant sensation but one that is joyous and smiling.'¹⁴ When discussing beauty, Burke uses less hyperbolic language than in his sublime descriptions, this again re-emphasises the differences between the sublime and the beautiful. He writes, 'beauty should be light and delicate ... beauty should not be obscure', and

whereas 'sublime objects are often vast in their dimensions, beautiful ones comparatively small', his other classifications of beauty include 'softness, proportion, gradual variation, delicacy'.¹⁵

It is generally understood that the beautiful is a softer, more gentle aesthetic category, unable to provoke the intense feelings that are possible with the sublime. The aesthetic category of beauty is introduced to this discussion due to the transformation that occurs between the making of the photograph and the representation of the sublime incident within the final photograph. The case study photographs are made after a sublime incident has been identified within a particular site; the reaction when observing the motorway onsite defines the success of the chosen site, according to whether it provokes the sublime response or not. This extraordinary sublime incident is then photographed and eventually displayed to the audience, and the tension between sublimity and beauty resides precisely at this point of display. It is impossible for the audience to experience what was encountered onsite – the reality of the motorway and rural/urban condition. Their experience of the site is mediated through the final photograph.



Fig 40.
Gold Mine of Serra Pelada, Brazil. 1988
Photo: Sebastião Salgado

IMAGE REDACTED FOR COPYRIGHT REASONS

Therefore, the photograph can only ever be a representation of the sublime; and the audience can only experience a secondary version of that experience through the photograph. The conditions that defined the site as being sublime are distanced through the photographic process and so the audience has an experience of beauty rather than the original sublime incident. The extreme sublime incident is rendered beautiful through the photographic process. It is important to distinguish though that documentary photography is more able than architectural photography to elicit sublime responses within the audience as those that were experienced by the photographer in situ. For example within the iconic photographs of the Serra Pelada mine workers by Sebastião Salgado, the horror of the conditions the miners were experiencing is so extreme as to initiate a form of sublime response with the audience, who experience both pity and terror when viewing the photographs (fig.40)¹⁶

The majority of the final photographs, whether located within rural or urban conditions, were made under challenging circumstances. The most frequent difficulty involved access to the site. Even when the correct vantage point for making the photograph had been located, the challenge continued. The main difficulties encountered, which further emphasised the sublime experience, were the sounds and smells encountered while making the photograph. Burke writes of sound: 'Excessive loudness alone is sufficient to overpower the soul, to suspend its action, and to fill it with terror.'¹⁷ The stillness (and quietness) of the final photograph is in direct contradiction to the frequently deafening noise of the actual case study site; again the final photograph negates the experience of its making.

Since the photographs were made on ground level, the camera was frequently positioned below the motorway, in conditions of extreme the noise and vibration from the motorway overhead. Figure 3 illustrates one of the chosen Neopolitan sites. At the sides of the photograph, softened by the luminosity of the morning light, are large piles of rubbish that have been dumped in the area. The anonymous black bags emit an intense variety of smells and liquids, which have leaked out on and make walking on the ground uncomfortable and unnervingly compressible. For Burke 'intolerable stench ... are simply painful, and accompanied with no sort of delight', and were another form of negative phenomenological sensation experienced while making the photographs.¹⁸

The question then arises of what is being represented within the resultant image. The absence of the haptic, although experienced in its making, again confirms their beauty rather than sublimity. The softness that Burke discusses in relation to beauty is useful in relation to this tension between experienced sublimity and represented beauty. The final photograph, however the brutal the experience of its making, is softened to become beautiful; it beautifies the sublime experience. Furthermore, the photograph belies what is experienced during its making. It has a stillness and quietness that contradicts what occurred during its making.

1. Burke, E., Guyer, P. (ed) (1990) *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful* (2nd edition) Oxford: Oxford University Press
2. Ibid, p.57
3. Kant, I. (2004) *Observations on the Feeling of the Beautiful and Sublime* (2nd ed), Berkley, CA.: University of California Press
4. Ibid, p.49
5. Ibid
6. Wenzel, C.H. (2005) 'Beyond Beauty' in *An introduction to Kant's Aesthetics. Core Concepts and Problems*, London: Wiley, p.107
7. Burke, E., Guyer, P., op cit., p.57
8. Ibid
9. Ibid

10. Ibid, p. 73
11. <http://www.englweb.umd.edu/englfac/KChuh/Ryan.pdf> – p.269
12. Burke, E., Guyer, P., op cit., p.58
13. Ibid. p.58
14. Kant, I., op cit., p.47
15. Burke, E., Guyer, P. , op cit.,p.91
16. Serrara Pelada mine workers, Sebastian Salgado
17. Burke, E., Guyer, P., op cit., p.82
18. Ibid. p.85

Chapter 6. Final Photographic Series

The final 29 photographs illustrate the transition of the sublime incident from the rural to the urban landscape within the series. It begins with the landscape overpowering the motorway but through its journey the power shifts and culminates with the motorway's sublime power in dominance over the city. The starting point of the narrative shows the motorway as a small, almost insignificant feature within a wide-framed view of a mountainous valley with deep perspective (fig.41). The motorway enters our view on left side of the photograph and is balanced by a small road on right of frame, emphasising the size of the motorway architecture. The composition is weighted in favour of the expanse of the landscape and against the insignificance of the architecture, the smaller road just a thin thread of concrete on the hillside.

Here the motorway is comparable to a Poussin ruin within the landscape, a small trace of culture within a wild landscape. Whereas normally the classical is small and the modern is superscale, within this first photograph of the series, this is reversed. The sublime is evident in the power and scale of the landscape and how it overpowers the architecture. Analogous to the 18th-century Grand Tour travellers who were both dwarfed and terrified, shocked and awed, by the immensity of the mountains, the motorway architecture here too is rendered minute, unable to compete with the immensity and scale of the landscape it is in; as described in *Frankenstein*: 'it was augmented and rendered sublime by the mighty Alps, whose white and shining pyramids and domes towered above all, as belonging to another earth, the habitations of another race of beings.'¹ The composition of the photograph emphasises the supremacy of nature, endorsing traditional understandings of the sublime as a response generated and located within mountainous landscapes.

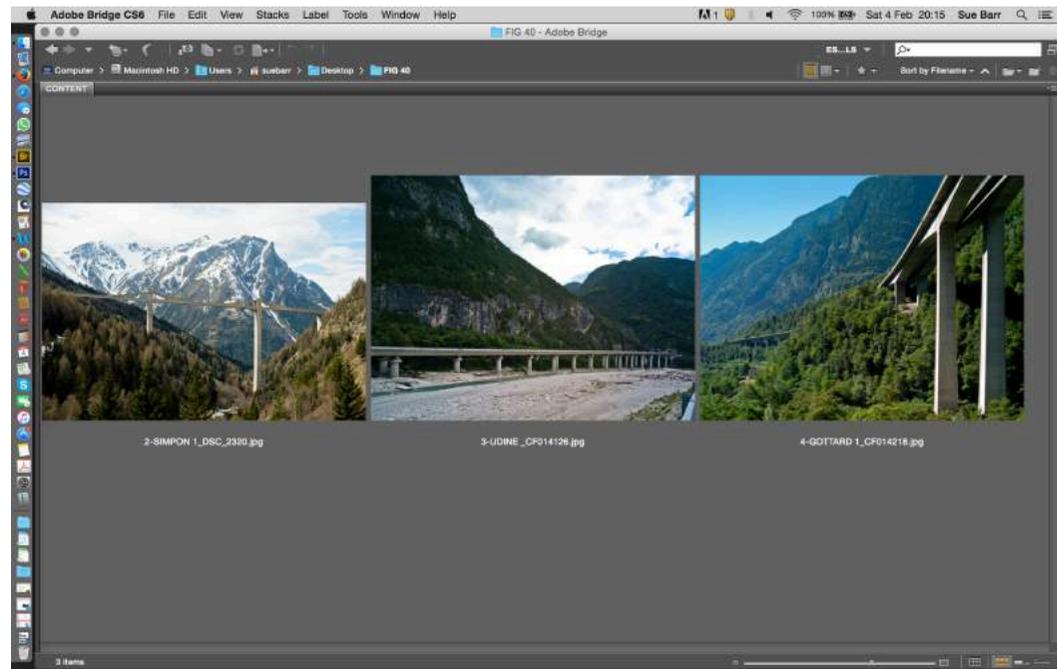
Next within the series, the motorway rises up and grows more present but is still overpowered by the landscape (fig.42). Here again the sublime is found within the landscape's dominance over the motorway architecture, but the landscape plays a game through our reading of the photograph. The towering piloti striding across the deep valley or following the river-bed create a visual illusion. Our brains tell us that we should understand the motorway architecture to be solid, and if we were closer it would be monumental, but the scale of the landscape renders it insignificant, like jewellery for the mountain.

The landscape and the motorway architecture become more interlinked in the next part of

Fig 41.
Via Strada Stale 696. Torninparte. Italy. 2013
First photograph in leporello.



Fig 42.
Screenshot of digital contact sheet showing 1st narrative
grouping in leporello



the series. The intricacy of the architectural structures is evident, with the pilotis negotiating the topography and in intersection with other motorways. The architecture begins to compete for dominance of the landscape (fig.43). The balance of power between the landscape and the motorway is becoming more equal. Here the sublime is manifest in two ways: through the immensity of the landscape rendering a normally monumental architecture insignificant. If we consider the architecture alone we have a second form of sublimity, that of the power of the motorway architecture as the sole presence within the landscape: the contradiction of the rural landscape and the existence of enormous concrete structures considered in isolation from the mountainous landscape. The architecture itself is a sublime feature through the presence and extremity of its form. The sublime begins to transfer its position, from landscape dominating the motorway to the motorway in concert with the landscape.

The mountains now begin to lower and recede into the background and the motorway architecture separates and elevates itself from the landscape (fig.44). Individual concrete piloti begin to mark out their route across the landscape, negotiating the topography and claiming dominance on their route. The clarity of the blue sky emphasises the monumental nature of the architecture. As the concrete pilotis increase in number, becoming more intense, there is a confusion about whether the landscape is rural or urban. Again the sublime is found in the motorway in juxtaposition with the landscape; the minimalism of the architecture emphasises its power over the landscape.

As the motorway moves out from the mountainous landscape and approaches the edge of the city, power is finally displaced between the landscape and the architecture (fig.45). At the motorway intersection and in conjunction with adjoining routes, the intricacy of the architecture becomes more complex and asserts the shift in the balance of power. Suspended on numerous piloti and taking up the field of view entirely, the motorway creates intricate spaces beneath it, which produce intensity in the light conditions and shadow areas. Here the sublime is located within this complexity and multiplicity of the motorway architecture in relation to the topography. The motorway has reached the edge of the city, which can be seen in the distance between the concrete pilotis.

The sublime is found now in incidents where the motorway is negotiating its way through and over the city (fig.46). The complexity of the structures in their approach to the city are now replaced with single monolithic piloti grounding between buildings, narrowly missing apartment blocks as the motorway continues on its journey. The sublime here exists in the juxtaposition of city and motorway. Whereas at the start of the series the motorway was dwarfed by the landscape, now the city architecture is overpowered in its proximity to the

Fig 43.
Screenshot of digital contact sheet showing 2nd narrative grouping in leporello

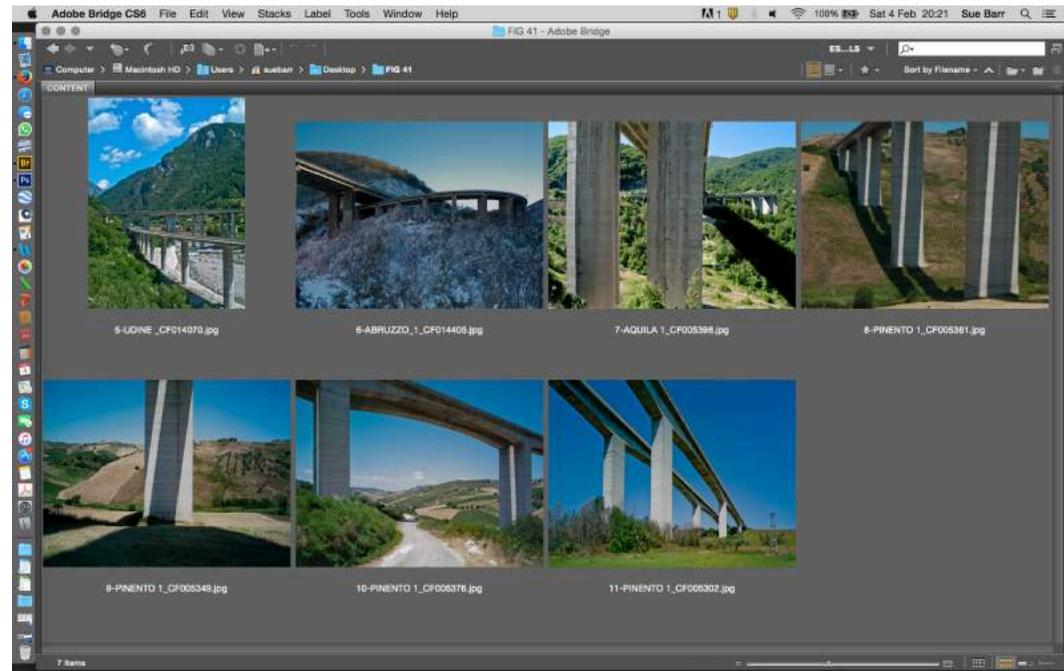
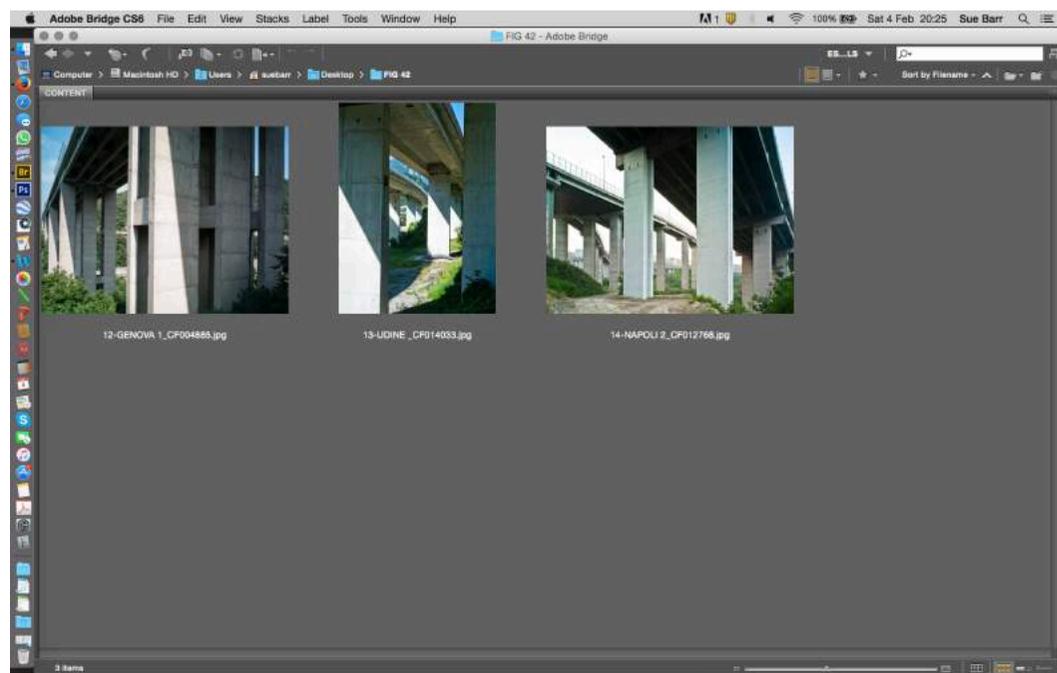


Fig 44.
Screenshot of digital contact sheet showing 3rd narrative
grouping in leporello



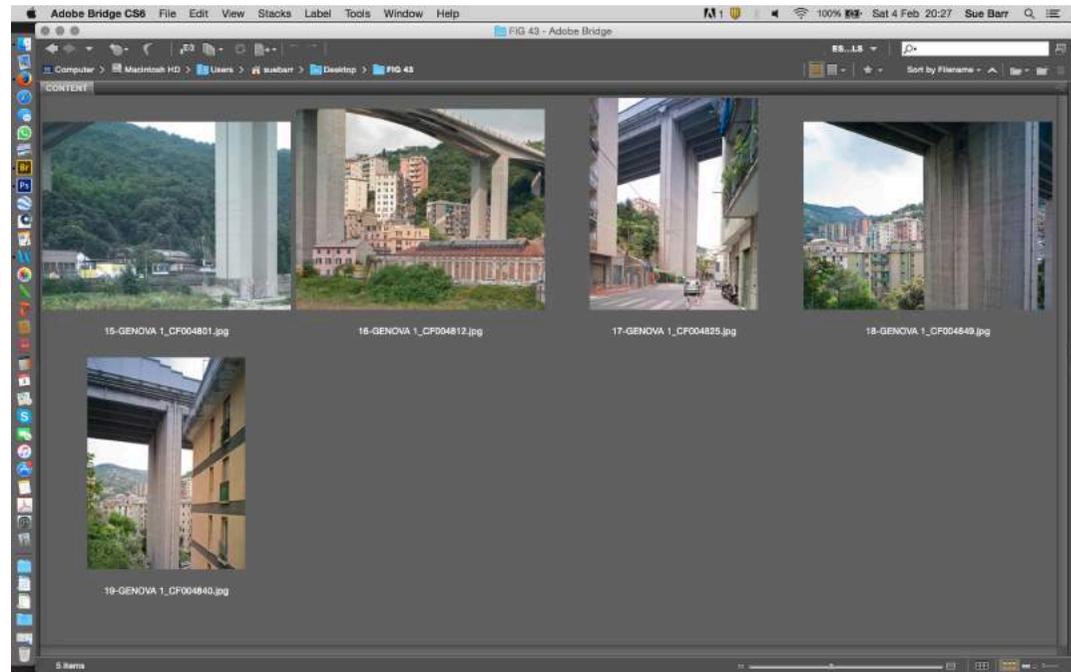


Fig 45.
Screenshot of digital contact sheet showing 4th
narrative grouping in leporello

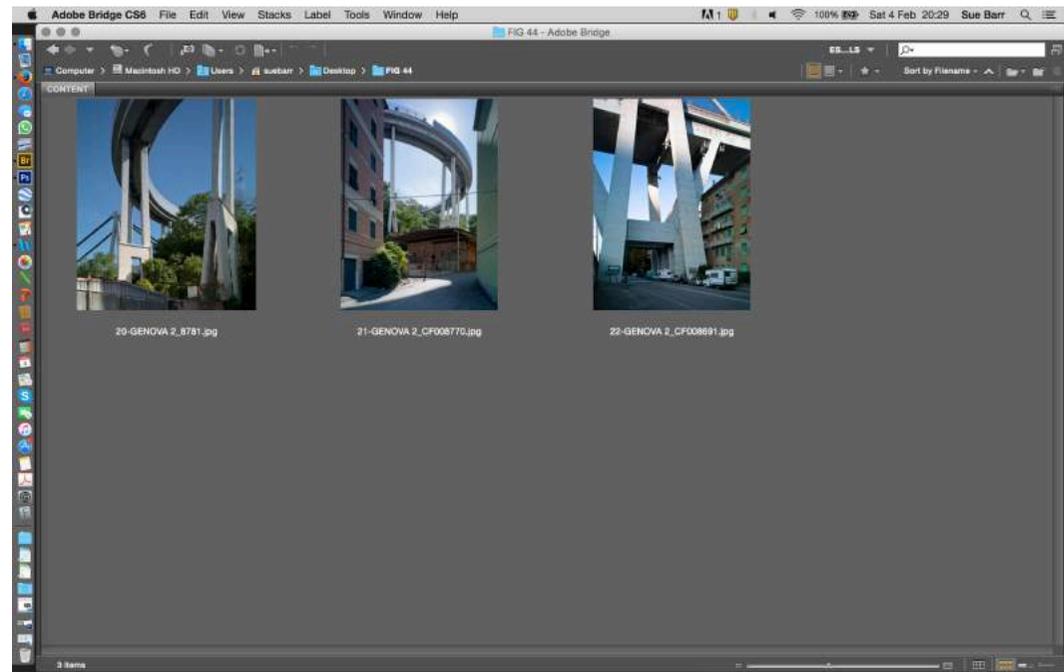


Fig 46.
Screenshot of digital contact sheet showing 5th
narrative grouping in leporello

motorway. Groups of residential buildings, themselves large enough to dwarf us on street level, are rendered insignificant in the presence of the concrete piloti. There is a constant shifting of scales and understandings of proximity occurring within the photographs, forcing us to keep re-evaluating our understandings of these terms.

The complexity of the architecture intensifies within the series, its structure becoming more labyrinthine in response to and negotiation through the city (fig.47). It twists and turns high above, even appearing to touch the buildings at certain points; the proximate coexistence of the city and the motorway creating the sublime incident. There is now an increase in visual speed of the photographs: the slowness and sense of space at the beginning has transformed into an accelerated sublime within the latter stages of the photographic series.

Similar to the way in which the upper branches of trees in a forest create a single layer of foliage, the motorway has now created a canopy over the city (fig.48). The spaces and light conditions it generates have become increasingly intense – shafts of light fall on and between buildings and create adjacent areas of deep shadow. The sublime is found in this contrast between light and shadow. To return to Burke and his discussion of light in relation to the sublime:

A quick transition from light to darkness, or from darkness to light, has yet a greater effect. But darkness is more productive of sublime than light. Extreme light, by overcoming the organs of sight, obliterates all objects, so as in its effect exactly to resemble darkness. And this is not the only instance wherein the opposite extremes operate equally in favour of the sublime, which in all things abhors mediocrity.²

Finally, at the end of the series covering the city, the motorway has created conditions of deep shadow and bright light, and this extremity of light has created incidents where we find ourselves practically blinded by the sublime (fig.49). Here in the two last photographs, the juxtaposition of deep shadows in concert with intense sunlight has made manifest the ultimate of sublime incidents. These final images also encapsulate two of Burke's other causes of the sublime that warrant further discussion, that of colour and sound. The issue of colour has been consciously embraced in the series. It was intentional to make the photographs in periods of good light for the blue skies and bright light it would cast on to the architecture and to actively reject the dominant and predictable banal aesthetic, normally associated with urban architectural photographs of this type.

Colour was also present within the architecture of the city and even the motorway architecture itself, which was not always the expected grey concrete colour palette. Often the

Fig 47.
Screenshot of digital contact sheet showing 6th
narrative grouping in leporello

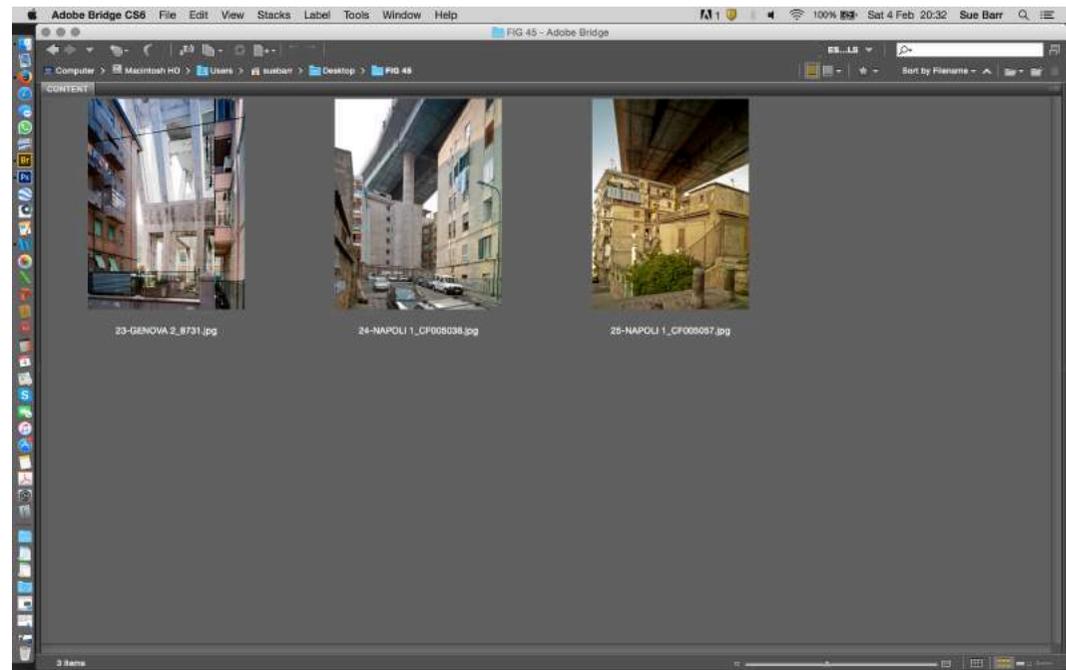
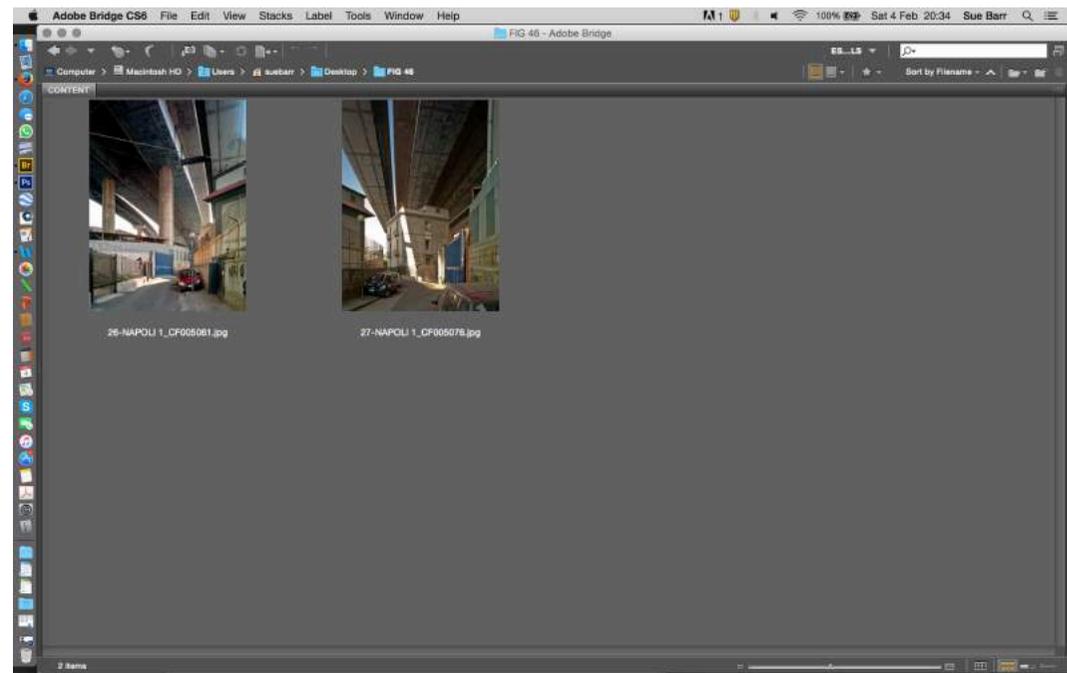


Fig 48.
Screenshot of digital contact sheet showing 7th narrative
grouping in leporello



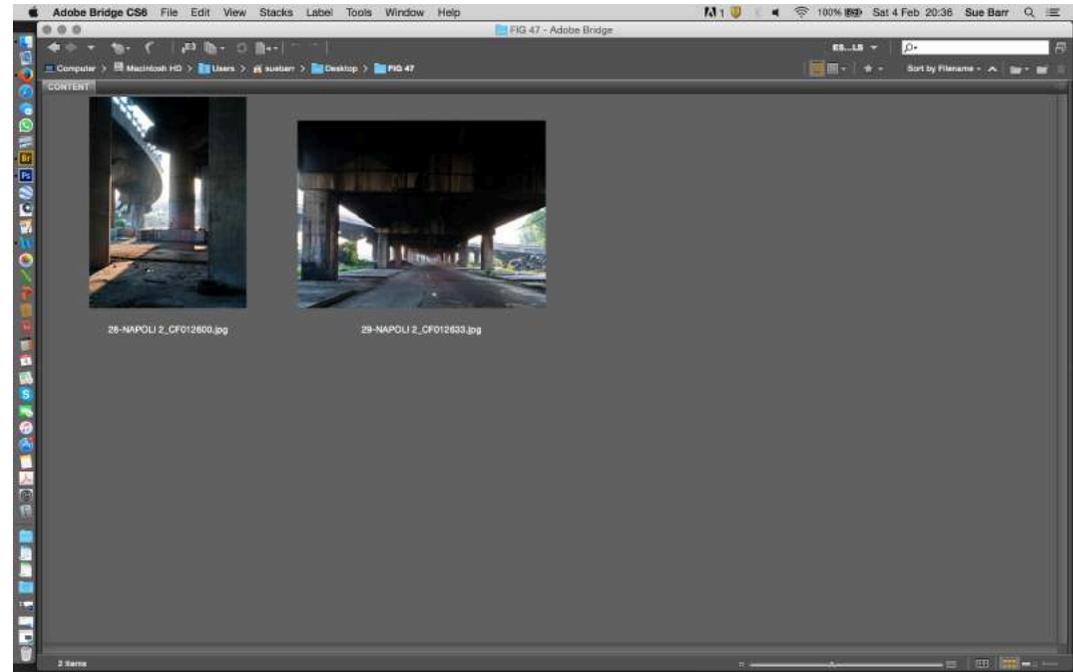


Fig 49.
Screenshot of digital contact sheet showing 8th narrative
grouping in leporello

undersides of motorway flyovers were found to be painted in shades of red or blue as preservation measures for the structural steel. When this steel was exposed and corroding, it often created colourful stains and weathering on the surrounding concrete. Within the early part of the final photographic series, the colour palette is dominated by shades of blue and green, as would be expected within rural landscape photographs; when inside the city itself, the colours became softer and were frequently a pastel colour palette of the architecture. The series ends with two photographs of a specific colour palette that Burke described as 'fuscous. (and in buildings) when the highest degree of the sublime is intended, the materials and ornaments ought neither to be white, nor green, nor yellow, not blue, nor or a pale red, nor violet, nor spotted, but of sad and fuscous colours, as black, or brown or deep purple, and the like'.³

Within these final two photographs the colour palette is dominated by the black, grey and brown tones that Burke describes as indicative of the highest degree of the sublime. These dark tones come from the architecture itself, both photographs depicting incidents of the sublime where the motorway is filthy. The sites are abject in their decay and squalor and the motorway architecture appears to be rotting.

For Burke, sound was a powerful cause of the sublime;

Sounds have a great power in these as in most other passions. Excessive loudness alone is sufficient to overpower the soul, to suspend its action, and to fill it with terror ... A low, tremulous, intermitting sound is productive of the sublime. Now some low, confused, uncertain sounds, leave us in the same fearful anxiety concerning their causes, that no light, or an uncertain light concerning the objects that surround us ... But a light now appearing, and now leaving us, and so off and on, is even more terrible than total darkness; and a sort of uncertain sounds are, when the necessary dispositions concur, more alarming than a total silence.⁴

The issue of sound was present within the making of all of the photographs in this project. At the beginning of the final series, when the motorway was located within wide and open landscapes, the main sound present was that of the wind, which emphasised the motorway architecture's isolation and emptiness within the landscape. Here the sound was the motorway reverberating with a low and distant rumble from traffic driving over expansion gaps or the concrete sections the road surface.

At the periphery and within the city itself, the rhythmic hum of the motorway was often drowned out when mixed with sounds of the city. Within the two final photographs sound as

a cause of the sublime is at its most resonant. Here, the sound of the motorway overhead was deafening, punctuated by irregular sounding of horns or screaming of brakes. In these two photographs, the acoustics of the space, intensified by the enormity of the motorway overhead produced the effect of an echo chamber, magnifying the most insignificant of sounds into a cacophonous wail.

The photographic series ends with the motorway disappearing into the distance, into a non-space between the city and the countryside. Neither in the city or the rural landscape, it is at the liminal edges where the motorway finds its own unique space. The final photograph is a visual full stop, composed to both simultaneously end the series and allow the motorway to continue its journey. The motorway architecture began as subservient and miniscule within the landscape, the sublime being found in the landscape's dominance over it, but now it has overtaken its surroundings, literally overpowering and suffocating the city.

The final photographs show sublime incidents where the motorway architecture is a dark and ominous presence within the city. The perspective of the final image depicts the onward and continuing journey of the motorway architecture. Their darkness and enclosure is the reverse of the brightness and openness at the beginning of the motorway's journey. The photographs are not entirely negative; there is an optimism within their portrayal of the sublime incident. Although we can read within the photographs the abject nature of these final locations with the piles of stinking rubbish and graffiti, the photographs also illustrate the healing warmth of the light cast through the motorway pilotis, and the positivity this light brings.

As the motorway has progressed through its journey the photographs have effectively gained momentum; the space and slowness evident in early part of the series is replaced by an accelerated sublime. The architectural intensity increases as does the speed of the photo. The slowness in the making of the photographs is in direct contradiction to the aesthetic speed of the final photographs. When considering the entirety of the final series, the earliest photographs have a sense of space within them; the motorway architecture and surrounding landscape context has enough room for each to breathe and exist without conflict. As the series progresses, this sense of contextual space decreases, both figuratively and literally. The motorway architecture and urban landscape begin to merge together, interstitial spaces are created which have the aesthetic effect of compacting and compressing the photographs, emphasising the feeling of speed and intensifying the sublime incident.

1. Shelley, M. (2008) *Frankenstein* (1818 text) Oxford: Oxford University Press, p.73
2. Burke, E., Guyer, P. (ed) (1990) *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful* (2nd edition) Oxford: Oxford University Press. p.79
3. Ibid, p.81
4. Ibid, p.82

Chapter 7. Evaluation and Conclusion

The central issue within this research project has been to understand precisely what was meant by the term sublime and to demonstrate why this became so relevant within the formation of this research project's methodology, as a way to read and make photographs of large-scale motorway architectures. As I discussed in Chapter 3, the discovery of the sublime aesthetic through my historical researches and readings provided the key to the establishment of my methodology for making the photographs within this project. Through my historical research I discovered the sublime's influence on painting, photography and travel literature and this influenced my project profoundly. This was manifest through the direction the historical research took within the project, the photographs I then made and their post-production manipulations.

I began by revisiting the traditions of landscape art to explore differing compositional principles that I could employ in the construction of photographs of large-scale motorway architectures. I was able to use the sublime aesthetic conceptually as a type of visual filter with which to look at motorway architecture. By this I mean that through understanding conditions and effects of the sublime, through its 18th-century definition, as discussed by Burke, I was able to identify precise locations within the motorway architecture where such an incident could be identified and then accurately tested and recorded through the making of a photograph. Through the making of the photographs, in the precise act of composition and framing, the incident of the sublime within the motorway architecture was photographed.

At the very start of my research into the sublime aesthetic, I understood that sublime is a complex word with many means of interpretation. Its contemporary usage has shifted its meaning significantly from its primary evolution in the 18th century. In Chapter 5 I discussed how I turned to the original aesthetic discourses of Kant and Burke, alongside contemporaneous literature and travel journals. Through this it was possible to precisely understand what was meant by the term sublime and how it was used by writers and artists at the time of its introduction. This understanding of the original term sublime has meant that it has been possible to define a precise position within specific locations from where to make a photograph that depicts the sublime incident through its careful composition.

This research project began with the question of how to make photographs of large-scale architectures that cannot be observed or understood in their entirety. Their enormous size

means that we can only ever see a small section of them, although they extend out from our field of view we know that they continue for hundreds of miles and cross international borders during their route. What would normally be a small element within architecture becomes enormous in motorway architecture. The scale of motorways makes them complex and paradoxical in that they are all structure: the road that they are supporting is almost imperceptible. When they are on a flat topography, the architecture of the motorway is usually invisible; its structure hidden, buried in ground surface.

This project has shown that precise locations exist within the architecture's route, which are worthy of our interest, where incidents of the sublime are found. The consequence of the motorway's scale, through its interaction and negotiation with either mountainous topography or the urban environment, means that the architecture is no longer invisible. I use the term 'invisible' because it is within these precisely defined (through the composition of the photograph) and experienced (by the photographer) locations, that the motorway architecture transcends the mundane to become a location where the combination of the aforementioned factors creates a sublime incident.

The new research methodology that the project has developed consists of using photography to research and record large-scale architectures, and through the creation of the photograph to draw the audience's attention to instances of the sublime found within it. This means specifically that by using the sublime incident as the subject and the precise compositional process of photography, a methodology is created for *seeing* the sublime incident within the architecture. The photograph reveals that there is an incident worthy of our interest within the motorway architecture that would otherwise be unseen, through identifying and photographing it. The term 'seeing' has been used very precisely and with a duality of meaning: firstly through the act of perceiving with our eyes, but secondly and more significantly, it is used to mean comprehension or awareness – the revelation of understanding something that was previously not known.

The four corners of the photographic frame (the viewfinder) directed in a particular direction at a specific height eliminate extraneous information to create a photograph that records an incident of the sublime. This composition of a photograph identifies and records an incident of the sublime in a way that is not possible with our eyes only. When we look at a piece of architecture our eyes wander around, and simultaneously we make judgments assessing both the architecture and its location. We shift our focus to different things in the location, ignoring unnecessary details and spending unequal amounts of time looking at other details. Within the photograph there is a democracy of information (even if the photograph has a shallow depth of field that throws particular areas out of focus); all the information is

contained within the four corners of the photograph (and viewfinder) and we are forced to consider this information only.

In Chapter 6 I discussed the final photographic series and the progression and intensification of the sublime incident within this narrative. What can we discover about the sublime within motorway architecture when reflecting on the photographic series at the end of this research project? It is evident that there are three different factors found individually and in combination within the photographs that have helped create the sublime incidents within the architecture. The first of these is light, the most fundamental of element for a photographer; without it there is no photograph, so while it might seem redundant to discuss the presence of light within the final photographic series, it is a major cause of the sublime incident.

The quality and intensity of light have contributed to, if not actually created, the sublime incident within the majority of the photographs. An example of this is found within *Via Silvestri, Naples* (fig.50), where the intensity of the light falling across the side elevation of the villa and on to ground level emphasises both the direction and enormity of the motorway overhead. The brightness of the light accentuates the suffocating and canyon-like feeling of the architecture within the photograph; the thin gap between the two carriageways overhead allowing just a limited amount of sunlight to enter the site. The shadows created by the bright sunshine within the photographs also accentuates the monumental nature of the motorway architecture being photographed, and in some of the photographs the motorway is more significantly represented by shadow than actual architecture. In *Via dei Sannti, Pinento* (fig.51), the shadow area dominates the composition; it encroaches into the photograph from the bottom of the frame and falls as two diagonal shadows on the concrete piloti that bisects the composition. Even though only a small section of the motorway architecture is revealed within the photograph, the sublime incident is found within the monumentality of the architecture, which is endorsed by the existence of the shadow. Without the shadow the photograph would lack the ominous feeling that it depicts and there would be no sublime incident present within this site.

In Venturi's *Complexity and Contradition in Architecture*,¹ he discusses 'the vivid tension' that occurs when architectural elements are in close proximity: 'juxtapositions of expressways and existing medieval cities'.² These proximities or 'violent adjacencies'³ as he also describes them, are the second defining factor that can be found within the final photographic series. In *Via Enrico Porro, Genova* (fig.52), we can see how the sublime incident is precisely manifest through proximity. The photograph (and sublime incident) is located where a complex structure of concrete pilotis are in close adjacency to a housing block, oppressive in scale over the housing, even appearing to be in contact. As the series progresses through its narrative, the

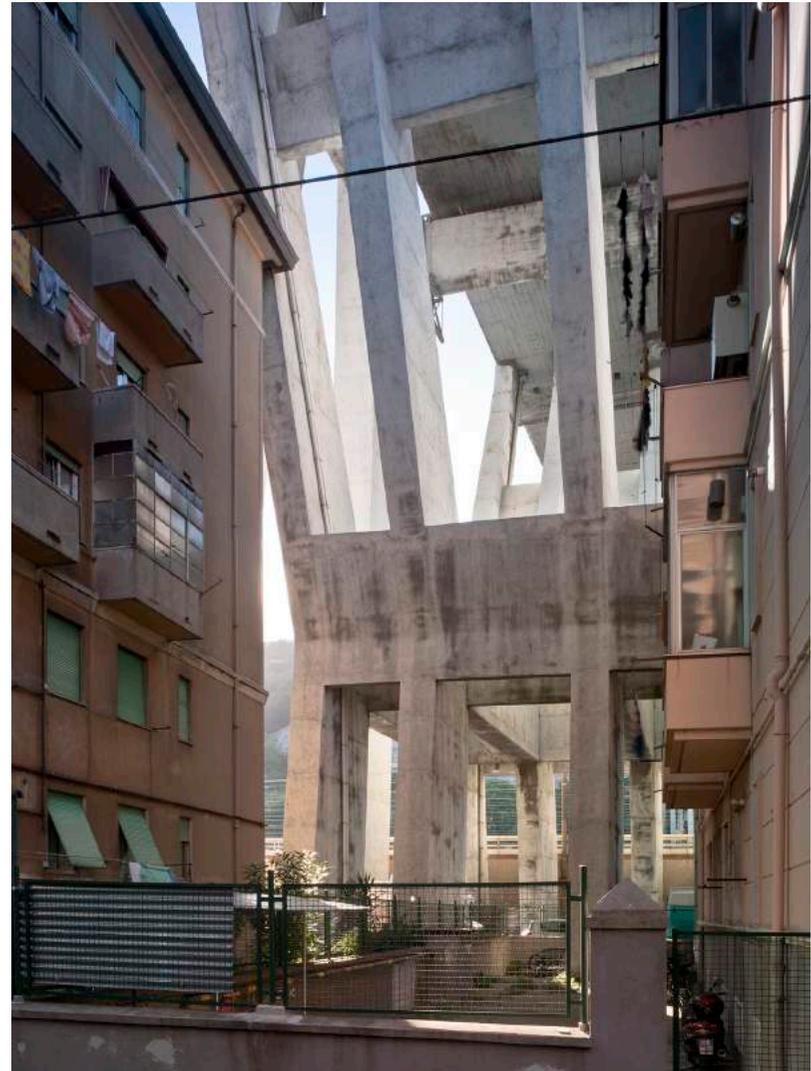
Fig 50.
Via Silvestri. Naples, Italy 2012
Photo: Sue Barr



Fig 51.
Via dei Santi. Pinento, Italy 2012
Photo: Sue Barr



Fig 52.
Via Enrico Porro. Genova, Italy 2012
Photo: Sue Barr



issue of proximity becomes increasingly dominant. The motorway becomes more substantial and present within the photographs, entirely dominating the spaces at the end of the series. It is precisely in the making of the photographs of these hyper-proximities that the research project has identified and photographed the sublime incident.

The third theme that has been identified within the final photographs is scale, which can also be found in concert with light and proximity. When we are outside the city, it is often difficult to comprehend the scale of the motorway because it is dwarfed by its landscape context, it appears as a tiny architecture within a vast landscape. This can be seen in figure 41, where the motorway, comparable to a ruin in a Claude landscape, is in the far distance and without any reference to show its true scale. When the images move into the city, the motorway's true, monstrous scale is revealed; and humans are dwarfed in proximity to the architecture. Its towering, monumentality generates the feelings of threat and jeopardy of the sublime incident. *Via Pigna, Naples* (fig.53) illustrates the way in which scale has generated incidents of the sublime within this research project. The concrete pilotis are numerous and fill our field of view, their connections to the motorway overhead and each other are complex and almost tangled. The urban sprawl of tower blocks in the distance are insignificant against the enormous pilotis. It is both the scale of this architecture that looms above us and its ominous black shadow that create the incident of the sublime.

The three factors of light, scale and proximity (individually and in conjunction with each other) are found within all of the photographs made during this research project. It is accurate then to conclude that these are the conditions that are able to create an incident of the sublime when in conjunction with motorway architecture. While it is through the act of making the photograph that this sublime incident is recorded and revealed, the photograph is the result of all the research undertaken throughout this project. Without the understanding of the Burke's causes and definitions of the sublime and the detailed examination of landscape imagery composition in both painting and photography, the photographs would not have the methodological framework in which to make them.

This then introduces the discussion of the new and transferrable knowledge that this PhD project has created. The research project has produced original research on the aesthetics of motorways. It has used photography to examine the aesthetics of an architecture that has previously been ignored within architectural discourse. The research project has done more than simply make photographs of motorway architecture: it has created a new methodology with which to identify significant incidents within a large-scale architecture that is too vast to comprehend in its entirety. Inspired by the 18th-century definitions of the sublime, as discussed by Edmund Burke, the project's new methodology for photographing architecture

Fig 53.
Via Pigna. Naples, Italy 2013
Photo: Sue Barr



uses the factors of scale, proximity and light when found within motorway architectures to exactly identify an incident of the sublime. This is then revealed and recorded through the making of a precisely composed photograph. The use of photography to research motorway or even large-scale architectures is a new contribution to architectural knowledge. It is not enough to have an understanding of the causes of the sublime when looking at large-scale motorway architectures, the vital part of the methodology that has been created is the production of the photograph.

As discussed in Chapter 5, the four corners of the viewfinder precisely compose the photograph, so the sublime incident is experienced onsite by the photographer but finally recorded through the photograph. The resulting photograph is a more accurate recording of the sublime incident than can be seen with our eyes. This is due to the democracy of the photograph and its ability to render information equally; our eyes wander around a scene and we disregard unnecessary information, as outlined above. The photograph records this precise location and incident of the sublime, which may be due to changing light conditions, or it may be only a temporal incident. It is important at the conclusion of this research project to decide what exactly the photograph is. Is the resulting photograph itself a sublime incident? The earlier discussions of the definition of the sublime, referring back to 18th-century usage, outline the extreme conditions necessary to create an incident of the sublime and the strength of feeling provoked by the audience. This then makes it clear that the final photograph cannot convey an experience of the sublime. It depicts an incident and experience by *the photographer* of the sublime within the motorway architecture but is then mediated through the photographic process to become beautiful.

Each of the 29 photographs in the final series has a visual power; increasingly throughout the progression of the series and within the presentation in the Leporello format, the photographs build in intensity. Again the incident of the sublime that they are recording is translated into an incident of beauty in the final photograph(s). Beauty is often seen as having a lesser aesthetic quality than that of the sublime, its characteristics do not relate to the experiences of fear and barely contained terror as described in 18th-century aesthetic discourses. This does not mean that the final photographic series has failed in its attempt to record incidents of the sublime. The sublime was identified, experienced and recorded by the photographer; the resulting photograph is identified and experienced as beautiful by the audience.

This new methodology of viewing and making photographs of large-scale motorway architectures, using the understandings of the sublime and the conditions of light, proximity and scale is a new contribution to knowledge and is transferrable to other types of

architectural research. I am interested to pursue post-doctoral research to continue my research into incidents of the sublime within large-scale architectures and further explore how photography can be used to generate new readings of these architectures. This could be by resuming this strand of research within other geographical locations. Possibilities include the 19th-century Westward expansion in the USA as a counterpoint to the Grand Tour expeditions in Europe or the incorporation of East into Europe; places where the road still symbolises the future and modernisation. I am also interested in expanding my post-doctoral research to include other forms of infrastructural transit systems, to aid understandings of large-scale architectures.

I began this research project from the position of being a commercial architectural photographer, with an established photographic methodology that has evolved from years of commercial projects but this research project has fundamentally rebuilt and advanced my photographic practice, particularly in relation to the methodology I had developed during my years working as a commercial architectural photographer.

When working within a commercial environment where a photographic commission may only allow a few hours to photographing an entire building, I learnt through experience to work extremely quickly and to instinctively know when it is necessary to move to the next photographic location. This constraint of time pressure when shooting commercially is directly in opposition to the new methodology developed as a result of this research project, where the ability to spend more time at a location is extremely beneficial for the composition of the photograph.

As I discussed in Chapter 3, in regard to seeing and composition, a period of extended time on site through which to assemble the camera and consider the precise composition of the photograph is invaluable. It is only through extended contemplation of the composition that one is able to fully consider precisely what will be included and excluded from the photographic frame as well as the most successful way to achieve the desired photographic record of the sublime incident.

Another important development from my previous commercial practice is that of the amount and significance of contextual information within the photograph. Within commercial photography the photographs are more comparable to that of photographic portraits of the architecture; the building in question is the principle and most important feature within the photograph and it should be devoid of distracting and competing contextual information. The building that is commissioned to be photographed, may contain surrounding elements (e.g. untidy landscaping, car parks) or other architectures that detract from the desired image construction. For example, a neighboring building may have a bright red façade that would

draw the viewer's attention away from the architecture being photographed. The commercial photographer is required to understand exactly how much information to capture [and exclude] within the photograph to make the required 'portrait' of the architecture.

The reason for not wanting these distractions within the photograph is that their presence significantly changes the photographic image. Instead of the viewer of the photograph seeing a perfectly composed architectural image their attention is drawn away from the architecture to considerations of the people in the photographs or the types of cars parked outside. We begin to contemplate who the people are in the photograph, what are they doing in this location or if we have a particular fondness for one type of vehicle in the photograph over another. Within commercial architectural photography the requirement is for the creation of photographs that represent and idealise the architecture; busy, full spaces within photographs cause too many distractions and deflect from the intention of the photograph, that being the celebration of the architecture in question.

Whereas the photographs made within this research project have sought to explore and celebrate precisely this combination of architectural element (the motorway) and contextual landscape conditions (the surrounding environment) in making photographs identifying incidents of the sublime.

Through this research project I have sought to establish a new way of being an architectural photographer, to develop a new methodology for the making of photographs of motorways and for the photographs to reveal incidents of the sublime found within their route. Unlike within the autographic style of the banal, the subject of this research project, the motorway and its sublime incident, is the significant element to be photographed, and more important than the photographer making them.

With any large-scale photographic project technical issues and problems develop, unforeseen at the beginning of the research. The project was undertaken with the equivalent of a standard lens, which was an important decision because I wanted the photographs to be representations of what was possible for the audience to see if they had been at the site at the time of photographing. The use of either long or wide-angle lenses have their own visual tendencies (of either distortion, foreshortening or distancing of the subject), which I was keen to avoid. The lenses I was using were second-hand and of varying qualities, so if I had continued with the original intention of producing large-scale photographs, there would have been technical issues of quality differentials to consider. The choice to produce my final series of photographs at a relative small scale eliminated this problem.

The main issue that has emerged at the end of this project is that of the nature of digital recording technology and the speed at which it has advanced in recent years. The Phase One digital camera back that I have used throughout this project is arguably now obsolete, with modern mobile phones having greater megapixel recording capabilities. More relevant perhaps than the technical method of recording the photographic image is that of the nature of the photograph itself; during the years in which I have been undertaking this research, what that means exactly and its dissemination within contemporary culture have changed unimaginably.

I began this project from the position of considering digital photography to be an entirely new type of photography and not a replacement at the death of chemical photography as was thought when Kodak stopped making photographic paper in 2005. Instead of concern for megapixel numbers and technical standards of professional versus amateur photographic equipment, the consideration should be of the different representations of the photographic image. By this I mean the instant accessibility of the photographic image and its use within social media platforms such as Snapchat and Instagram. We may find in the future that cameras as we know them now may disappear, and what will be left is image-making with different forms of technology and representations. The recent publication of *Post Photography: The Artist with a Camera* by Robert Shore ⁵ is indicative of the new understandings and discussion of the position of photography in contemporary culture, particularly with reference to the reappropriation of photography from internet sources for the production of fine art photography.

At the end of this project I can see that the technology I have used is out of date, and so if I were to undertake this project again, inevitably it would become a different project. I consider that it is best to not have a fixed position about this, rather to be open-minded and see new developments in photographic technology as opportunities for the further development of one's own practice. Rather than reacting with hostility, it is worth embracing them instead as they have the ability to push our work in unforeseen directions.

To conclude this research project it is necessary to reflect on the intellectual journey and significant findings that have been made throughout the course of this doctoral study.

This research project's main question and area of photographic investigation was to find a way of photographing large-scale motorway architectures within both the city and landscape contexts. This was a new intellectual investigation as no previous doctoral research work had been undertaken within this area of architectural discourse. At the beginning of the project finding an appropriate way of photographing these architectures was a difficult task, due to the

immensity of the architecture in question and the complexity of the landscapes concerned, from dense urban city conditions to remote mountainous landscapes. There was also the difficulty of both finding the locations in which to make photographs (including the intellectual reasoning for the decision) and avoiding the large stretches of motorway where there was ‘no architecture’, i.e., where the motorway existed on flat topographies and the architecture of the motorway was buried below the surface of the ground.

Therefore one of the significant intellectual achievements of this research project has been to create an original photographic methodology that is appropriate to be applied to the complex and contrasting architectures and landscapes contained in the project’s field of study. The intellectual solution to this question was found during the significant historical researches undertaken during the project. By systematically and chronologically researching historical and compositional techniques found within classical landscape paintings, I discovered a variety of technical devices such as ‘repoussoir’ and the narrative elements of ‘argument’ and ‘paragon’ that I was able to use in the analysis of a wide range of artists’ differing approaches to the construction of landscape images. In turn I was able to use these ideas to reflect upon the compositions of the photographs I was making.

This was a significant intellectual finding and development of this research project in two ways. Firstly, it allowed me to understand how it was possible to read the enormous and complex landscapes the research project involved. Both the mountainous topographies the motorways were travelling through and also the complex urban sites where motorways were negotiating dense architectural conditions were landscapes it was initially difficult to read. By this I mean that the urban or topographical complexity made the landscapes impenetrable to the viewer: there was a visual chaos. Either the density of the urban landscape or conversely the immensity of the mountainous topography made it hard to decipher where the architecture began and ended and which was appropriate for the construction of the photograph.

Secondly, the decision of where to position the four corners of the photographic frame within the photographic composition was not immediately apparent prior to the undertaking of historical research. It was through the intellectual findings achieved from the earlier historical researches that enabled these decisions to be made. The knowledge of compositional techniques – the understanding that the viewer must be able to visually enter the photograph, and not be closed off from the available narrative possibilities due to the camera being positioned wrongly in relation to the architecture – was only gained after the historical landscape painting compositional techniques were identified as significant intellectual findings for the project.

My investigations into historical landscape painting and its relation to the construction of photographs of motorway architectures constitute an important and original achievement within architectural discourse. More broadly, the discovery that these two differing areas of art and architectural knowledge have relevance to each other and their combination and use within doctoral research is also an original contribution to knowledge.

These researches in historical painting consequently led to my investigation into the landscape classifications of the beautiful and the picturesque, which resulted in the most important intellectual finding of the research project – that of the significance of sublime aesthetic theory, and in particular the writings of Edmund Burke. These were vital in the formation of my new photographic methodology. The discovery of the sublime landscape classification and the study of paintings and literature related to this aesthetic became then the intellectual driving force of the project as it revealed a new way for me to read and view landscapes and architectures.

The research project's singular intellectual achievement was to find a way of translating these 18th-century sublime theories into a contemporary interpretation to enable the critical framework through which to make a photographic research project. The sublime classification is a very powerful aesthetic and it was this intense response that I was seeking to find in the motorway landscapes I was researching. This understanding of potential intensity within motorway architectures necessitated rereading the 18th century texts and reflecting of how they might be applied to contemporary architectures. As I outlined in Chapter 5 I believe it was appropriate and important to consult the original 18th century treatise as they were the original discussions of the aesthetic – and adhered to the definitions and understandings of the sublime that have been much diluted within contemporary art and architectural discourse. They also pragmatically discussed which types of conditions could create sublime responses in the viewer.

I decided that when Burke discusses and systematically categorises the causes of the sublime in his treatise *A Philosophical Enquiry*, it was necessary to take each of these individual causes and consider whether it was possible to use it in relation to contemporary motorway architectures. Through Burke's discussion of causes of the sublime, including astonishment, terror, vastness of magnitude, I was able to construct a new framework for reading landscapes of motorway architectures and identifying potential incidents of the sublime within them. As discussed earlier in this chapter, this new intellectual framework resulted in the conditions of scale, light and proximity being used as factors to identify potential incidents of the sublime; this was another major intellectual achievement of my research project.

A further finding related to my creation of a new photographic methodology identifying incidents of the sublime in motorway architecture, concerns methods of output and display of the photographs. As I discussed in the Methodology chapter, I decided to reject the standard contemporary art method of photographic presentation – that of large-scale imagery where the viewer is dwarfed by the immensity of the photographic image. Instead I chose to print my photographs small-scale. This requires the viewer to engage closely with the final photographic series and interrogate the images in close proximity. Through my research I discovered that the issue of proximity was an important factor because closer distances of the viewer in relation to the photographic print and the concentrated viewing that this entailed is analogous to the intensity with which the particular sublime incident was experienced and recorded on site. With the small-size prints I wanted the viewer to become physically close when looking at the photograph, so that it was possible to scrutinize at close detail all the elements within the composition. This understanding was arrived at through exploring different print sizes and also through a public exhibition that enabled experimentation into the best combination of print size and associated viewing distance.

I began this research project began whilst I was still working as a commercial architectural photographer and now at the end of my project I can see that the significant investigations both intellectual and photographic that this project has necessitated have resulted in my practice being completely transformed into a successful art practice, and with my photographs being currently shown in the *Autophoto* exhibition at the *Fondation Cartier* in Paris. ⁶

In conclusion, the ideas and writings of Edmund Burke still have enormous relevance, despite the current prevalence of social media's alternative methods of photographic representation. Burke's theory of the sublime provides contemporary photographers seeking to reject the current fashion for the banal with an intellectual framework for investigations into the sublime. That is what this research project has achieved – the development of a new methodology for the digital photography of incidents of the sublime in motorway architectures.

1. Venturi, R. (1984) *Complexity & Contradiction in Architecture*, New York, NY.: The Museum of Modern Art, p.66
2. Ibid
3. Ibid
4. *AutoPhoto*. Fondation Cartier. 261 Boulevard Raspail. Paris. 20th April – 24th September 2017
5. Shore, R. (2014) *Post Photography. The Artist with a Camera*, London: Laurence King
6. Within the gallery my work was exhibited next to two large-scale photographs by Hans-Christian Schink. The installation of my work next to Schink's was an obvious pairing due to the comparability of his photographs of German autobahn's under construction, but in the gallery the originality of my work was clear and is discussed in the Literature Review.

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Exhibitions (in London unless stated otherwise)

Ansel Adams Photography from the Mountains to the Sea. National Maritime Museum. 9 November 2012–28 April 2013

Architectural Landscape. Grimaldi Gavin. 21 May–18 July 2014
Art and the Sublime. Tate Britain. 1 February–14 November 2010
Olivo Barbieri. Site Specific_LONDON. Ronchini Gallery. 30 November 2012–10 January 2013
Cartier-Bresson: A Question of Colour. Somerset House. 8 November 2012–27 January 2013
Primož Bizjak: Hotel Bristol. Galerie Grigor Podnar, Berlin, Germany. 18 January–8 March 2014
Boyd & Evans. Overland. Flowers Gallery. 12 February– March 2016
Constructing Worlds. Photography and Architecture in the Modern Age. Barbican Gallery. 24 September 2014–11 January 2015
Thomas Joshua Cooper. Messages. Haunch of Venison. 1 February–28 March 2013
Do you Speak Touriste? Musée d'Art Pully. Lausanne, Switzerland. 6 March–11 May 2014
Chris Engman. LA/Berlin Trilogie I Landscapes. 68 Projects. Berlin, Germany. 27 November 2015–23 January 2016
Forests, Rocks and Torrents. Norwegian and Swiss Landscapes from the Lunde Collection. National Gallery. 22 June–18 September 2011
Gargoyles and Shadows: Gothic Architecture and 19th-Century Photography. V&A. 7 January–16 May 2010
Guido Guidi. Facades. Large Glass Gallery. 27 September–22 December 2016
Guido Guidi. From the Interior. Large Glass Gallery. 23 April–26 June 2015
Richard Hamilton: The Late Works. National Gallery. 10 October 2012–13 January 2013
Dan Holdsworth. Transmission: New Remote Earth Views. Grimaldi Gavin. 23 March–19 May 2012
William Klein + Daido Moriyama. Tate Modern. 10 October 2012–20 January 2013
Land/City/Real/Imagined. Diemar/Noble. 25 August–1 October 2011
Landscape and Structures. Swiss Architecture Museum, Basel, Switzerland. 16 April–17 July 2011
Longing for Landscape-Photography in the Anthropocene. Tieranatomisches Theater der Humboldt-Universät. Berlin, Germany. 1 October–1 December 2016
Light From the Middle East: New Photography. V&A. 13 November 2012–7 April 2013
John Martin: Apocalypse. Tate Britain. 21 September–15 January 2012
Memory & Imagination. Dutch Italianate & Contemporary Landscapes. The Mall Galleries. 23 January–1 March 2013
Domingo Milella. Grimaldi Gavin. 13 March–25 April 2015
Eadweard Muybridge. Tate Britain. 8 September 2010–16 January 2011
Walter Niedermayr. Surfaces. Nordenhake, Berlin, Germany. 25 January–8 March 2014
Objectivités. La Photographie à Düsseldorf. Musée d'Art Moderne. Paris, France. 4 October 2008–4 January 2009
Catherine Opie. Stephen Freidman Gallery. 23 November 2011–21 January 2012
Painting Canada: Tom Thomson and the Group of Seven. Dulwich Picture Gallery. 19 October 2011– 8 January 2012

Photography: New Documentary Form. Tate Modern. 1 May 2011–10 April 2012
The Photographers' Pilgrimage: Exploring Buddhist Sites in Asia. V&A. 29 April– 21 June 2009
Photographic Typologies. Tate Modern. December 2010
Recording Britain. V&A, London. 14 April–2 December 2012
Recording the New: The Architectural Photography of Bedford Lemere & Co. V&A. 4 June–30 October 2011
Gerhard Richter: Panorama. Tate Modern. 6 October 2011–8 January 2012
The Romantics. Tate Britain. 9 August 2010–9 April 2012
Michael Schmidt. Martin-Gropius Bau. Berlin, Germany. 12 January – 1 April 2013
Seduced by Art. Photography Past and Present. National Gallery. 31 October 2012–20 January 2013
Stephen Shore. Retrospective. C|O. Berlin, Germany. 6 February–22 May 2016
Alec Soth. Gathered Leaves. Media Space. Science Museum. 6 October–28 March 2016
Joel Sternfeld. Maison Européenne de La Photographie Ville de Paris. France. 23 January–7 April 2013
Thomas Struth. Nature & Politics. Martin-Gropius Bau, Berlin, Germany. 4 March–29 May 2016
Thomas Struth: Photographs 1978–2010. Whitechapel Gallery. 6 July– 16 September 2011
Jürgen Teller. Woo. ICA. 23 January–17 March 2013
There's Something Happening Here. Grimaldi Gavin. 14 September–10 November 2012
Félix Thoilier (1842–1914) Photographs. Musée d'Orsay. Paris, France. 13 November 2012–10 March 2013
Wolfgang Tillmans. Central Nervous System. Maureen Paley, London. 14 October–24 November 2013
Turner and the Masters. Tate Britain. 23 September 2009–31 January 2010
Twombly and Poussin: Arcadian Painters. Dulwich Picture Gallery. 29 June– 25 September 2011
Massimo Vitali. New Works. Grimaldi Gavin. 18 November 2011–28 January 2012
Christian Vogt. Today I've Been You. Margaret Street Gallery. 30 May–6 July 2013
Watercolour. Tate Britain 16 February–21 August 2011
Ulrich Wüst. Cityscapes/Late Summer/Peripheries. C|O. Berlin, Germany. 6 February–24 April 2016
Catherine Yass. Lighthouse. Alison Jacques. 13 January–17 February 2012

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