CONTROLLED SHADOW IN PHOTOGRAPHY:
THE DEVELOPMENT OF A TECHNIQUE FOR CHILD PORTRAITUDE

by

Mark Mindry

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Controlled shadow in photography:
the development of a technique for child portraiture

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Dissertation in partial compliance with the requirements for the Degree of Master of Applied Arts in Photography, in the Department of Visual Communication Design, Durban University of Technology.

I declare that this dissertation is my own work and has not been submitted for any other degree or examination at any other institution.

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Abstract

This research deals with both the cultural and technical aspects of the use of controlled shadow in child portraiture. This study was contextualised by setting it in a theoretical framework of visual culture, and by exploring the connotations of shadow in western culture. The theoretical framework provided by visual culture suggested that the way in which shadow is interpreted is dependent on the context in which it is set, and, in the context of child portraiture in particular, shadow tends to be avoided in commercial shoots. As the commercial viability of photography depends on the public being comfortable with the images produced, child photographs are usually staged or touched up to ensure that no sinister or foreboding connotations might be conveyed by shadow. While the use of harsh shadow is generally not aesthetically pleasing, and obscures the very lineaments which personalise and animate images, it was the contention of this study that use of controlled shadow might add depth and character to portraiture, and has the potential to create aesthetically pleasing effects in child photography.

The empirical work explored both the cultural and technical aspects of photography. The cultural aspects, relating to the potentially undesirable aspects of photography, were explored in questionnaires and surveys carried out with groups of practising professional photographers and parents of young children. The technical aspects were explored by developing a technique for achieving pleasing aesthetic effects in child portraiture by use of controlled shadow, using the soft shadows cast by natural objects or those associated with play. The results suggest that photographers would be willing to use a technique such as that developed, provided that the results were acceptable to their clients, and thus commercially viable; the parent responses suggest that clients would find child portraits with controlled shadow aesthetically pleasing.
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To my wife, Melanie: Thank you for tolerating lost annual holidays, lonely nights and unfailing love in these past few years. Without your support, this dissertation would never have happened. I love you with all my heart.

Dedications
To my saviour Jesus Christ, for your guidance, patience and never ending love. It was your strength that enabled me to complete this journey. I dedicate this dissertation to you. To my late Dad, Alfred, who is no longer physically with us but ever present in spirit, I long to be with you again.

To my “model”, son Timothy Mark: Your rare genetic condition (immunoglobulin-deficiency) taught your dad a whole new meaning of the word dedication, and is the motivation for this study. Our journey showed me not only the physical attributes of aesthetics through the lens, but also the understanding of the “deeper” sublime experience of total commitment and love a dad can discover for his son through adversity.
Preface

DECLARATION

I, the undersigned, hereby declare that the work contained in this dissertation is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

SIGNED: Mark Mindry

DATE: 18/04/2017

The referencing system used in this dissertation conforms to the Harvard style as set out in the Reference guide: Harvard referencing style (Durban University of Technology Library 2013). EndNote 7 was used to generate the Reference list, using the DUT Harvard EndNote style 2013.

The convention for use of acronyms and other abbreviations in the text will be as follows: the term will be written in full on its first use in each chapter followed by the acronym in brackets. Thereafter, only the acronym will be used (Hofstee 2006: 189).
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Chapter 1: Introduction

1.1 Introduction
Chapter 1 first looks at the background to the study, and then touches on some aspects of child portraiture focused on in previous studies. It then identifies the focus of this study, and the general aim and scope of the project. The main themes of the research are then described, these being as follows: visuality, visual culture, the nature of visual depiction in photography, the importance of technique as opposed to digital effect alone, and the theme of shadow itself. Visuality and visual culture are then briefly defined, as well as two other key terms, aesthetics and controlled shadow. After suggesting the possible value of the research and its contribution to new knowledge, the chapter concludes with an overview of subsequent chapters in this dissertation.

1.2 Background to the study
This study was carried out in Programme (i.e. Department) the Photography at a university of technology. The use of shadow in photography has been a preoccupation for the researcher since his induction into “lighting technique” in his undergraduate studies at Technikon Natal (which was merged with M.L. Sultan Technikon in 2002 to form the - now - Durban University of Technology). In the baby/child lighting workshop it was explained that, in child portraiture, there must be “no shadow whatsoever,” and that “shadow was forbidden”. The rationale offered by the lecturer was that children were to be seen as “angelic” and “pure”, and therefore no negative connotation in the form of shadow in lighting technique and style was permitted. This amounted to what appeared to be an Industry obsession with the “porcelain doll” effect, in which blemishes and other imperfections were removed by excessive retouching. Dent’s (2015) exposé of the over-retouching of school photographs puts this vividly in perspective:
School photographers are now in trouble for offering a thoroughly modern “photo touch-up” service to smooth out pimples, facial lines and clothes stains from your child’s mugshot. “It is stealing our children’s innocence,” one mother complained. “This service will send our children the wrong message” (2015: 11).

This suggests that, unlike the clients requiring unblemished child photographs for magazine covers and child portraiture, not all parents are happy with the ”porcelain effect”. As Dent comments:

If this whole tradition is to continue, it cannot dodge the bullet of progress. I draw the line at the idea of receiving photos of my 10-year-old nieces that have been spruced up. Or anything where my nephew, aged 11, suddenly has two rows of straight, alpine-white teeth (2015: 11).

A sentiment expressed by a number of the respondents (photographers and parents) in this research was that children should be shown in their natural state without excessive touching, as this did not reflect reality. As one photographer stated in the questionnaire administered: “We don’t live in a world without shadows, so let’s be real.”

The (apparently) established convention regarding the lighting of very young children brought the researcher to the problem which, in his opinion, needed to be addressed, and which forms the basis for this study. This is the prescription against use of shadow (as well as the blemishes noted by Dent) in child portraiture. It is the contention of this study that the use of soft shadow in child portraiture can produce pleasing aesthetic effects, and, rather than offending potential clients, can be an added attraction and, therefore, an incentive to purchase the product.

1.3 Aspects of child portraiture in previous studies
Previous studies of - or research on - child portraiture have not focused specifically on aspects of shadow. Some of the notable aspects which have gained attention have been child portraits involving (1) the empathy aroused in the viewer (e.g. Lange’s Migrant mother, (2) the posed setting, with costumes and props (e.g. Geddes’ Down in the garden series), (3)
juxtaposition of documentary and fiction (e.g. Sally Mann’s *My family* series), and (4) the provocation of extreme emotions (e.g. Greenberg’s *End times* series).

1.3.1 Empathy aroused in the viewer

Dorothea Lange (1895-1965) was an American documentary photographer/photojournalist known primarily for her work at the Farm Security Administration during the Great Depression. Her *Migrant mother* image (Figure 1), taken in a camp of migrant farm labourers (pea-pickers), was received with great acclaim (Curtis 1986). The image consisted of a worn and weather-beaten woman with two of her children leaning into her shoulder, faces hidden, with an infant on her lap. This portrayal (as well as the accompanying series) of the effect of the Depression on the lives of ordinary people prompted the government to rush thousands of pounds of food to the camp, and influenced John Steinbeck in the writing of his novel *The grapes of wrath*.

![Migrant mother (Lange 1936)](image-url)
What is striking about this image is that two of the children’s faces are buried in their mother’s shoulders, facing away from the camera, signifying a state of utter despair. The family had apparently just sold the tires of their car to buy food, as the pea crop had frozen (they were migrant pea-pickers), so that there was no work to be had. What is striking about this image photographically is not only the pose and the predicament of the subjects, but the traumatic emotions which the children must be going through that captures the viewer’s attention. It is actually what you do not see which is all-powerful and more dynamic than the other combined elements, and why the image invokes a state of empathy in the viewer.

1.3.2 The posed setting, with costumes and props

Anne Geddes is widely recommended in photographic circles and is well-known for her use of props and costumes. In her *Down in the garden* series (Geddes 2006) this is clearly evident as her models (babies, in this case) are sometimes lost, or very minimally present at best, within the fantasia, the costumes and props often taking a dominant role (see Figure 1.2).

![Figure 1.2 Child asleep on tree trunk (Geddes n.d.)](image)
Although picturesque, from the perspective of lighting the images tend to be over-retouched, flat and bland. It must be noted, however, that her photographic intention was to capture the beauty, vulnerability and purity of children, and that Geddes had a deeply held belief that children must be nurtured, protected and loved.

1.3.3 Juxtaposition of documentary and fiction
Sally Mann’s work on her family portraits began in 1984. Taking a photograph of her daughter when her face was swollen with insect bites (Damaged child) made her aware of the potential of such images. As Mann stated: “that picture made me aware of the potential right under my nose” (Woodward 2015: 13).

Figure 1.3 Damaged child (Mann 1984)

She later added more props and took more pictures. Her family series thus incorporated two elements: “factual documentary” and “contrived
fiction” (Woodward 2015: 14). Mann’s series of black and white portraits of her children growing up certainly obtained some attention, but not all of it was welcome or favorable. Some publications censored parts of her images with black bars; others challenged her right to record scenes of distress, which included nosebleeds, a swollen eye and other childhood injuries. Images containing these injuries (whether real or simulated) led to accusations of child abuse (Steward 2000: 365). According to Woodward (2015), it was ultimately the use of pale flesh, which often contrasted with the darker surroundings, hints of shadowy forces (coupled with suspicions of pedophilia), and the raw reality of the outback which caused such consternation.

1.3.4 The provocation of extreme emotions
Jill Greenberg’s portraits of distressed children (see Figure 1.4), entitled End Times, prompted accusations of child abuse, which raised a public outcry and calls for her to be arrested and charged.

Figure 1.4 Image from End times (Greenberg 2012)
As Greenberg explains:

Each image in the series ... was created by eliciting a child’s hyperbolic reaction to minimal provocation. In many cases, the young subjects (children ages 2 to 4) required no provocation at all, and were simply agitated by the act of being photographed (Greenberg 2012: 1).

What transpired was that Greenberg offered the children a lollipop or toy, then took it away when they reached for it, photographing the resulting distressed expression.

Yet, as Greenberg (Greenberg 2012: 1) points out: “As any parent knows, rarely does a toddler sobbing convey any real pain or mental anguish. At that age, it is one of the main methods of communication.” Moreover, in spite of the public outcry, her work has received awards and has been acquired by private collectors.

1.3.5 The stylistic schools developed
The four examples of photographic child portraiture given above can be divided into distinct stylistic schools. Lange’s work, in the particular series cited, elicits a sense of horror at the plight of the children, invoking empathy. Similarly, with Greenberg’s crying children, a sense of outrage may be coupled with a desire to nurture the traumatized children. The works of Lange and Greenberg have an emotional impact on viewers, eliciting an extreme response. Geddes, however, exhibits an exuberance of cuteness with her props and locations. The sense of vulnerability and purity with which she imbues of her subjects sets her apart from her contemporaries. Mann, on the other hand, adopts a style of almost brutal honesty, and photographs her children in the outback, slaughtering buck together with her. Even though she enhances the stage somewhat, the stark essence of a caveman existence is portrayed, in contrast to the sterile façade Westerners have come to expect in child portraiture.
1.4 Focus of the study
Rather than developing a specific style, this study focused primarily on use of shadow in photography, more specifically, use of controlled shadow to create an aesthetic effect in child portraiture. This effect is in contrast to the "porcelain doll" effect which currently features predominantly in commercial child photography, notably on glossy magazine covers. Ultimately the aim was to develop a photographic lighting technique to demonstrate the aesthetic effects and use of controlled shadow on a child portrait. An important consideration was viewer acceptance, and therefore the commercial viability of this technique. This study therefore explored the significance of shadow in visual culture, reviewing the literature on visual culture itself and any studies on the use of shadow. The empirical work involved consulting freelance photographers and perspective clients as to the commercial viability of the use of controlled shadow in child portraiture, based on its aesthetic appeal. Given that there is a scarcity of shadow on child models featuring in South African commercial literature, this study investigated where, in the chain of image production, this shadowless phenomenon emerges: in the photographer's technique, in his/her personal post production, in agency post production or at the client’s request. Parallel to this investigation, a technique was developed for photographers who might wish to use controlled shadow to achieve aesthetically pleasing effects in child portraiture.

1.5 General aim and scope of the project
As mentioned above, previous studies (or styles) of child portraiture have not focused specifically on aspects of shadow. While use of light was integral to the enhancement of styles used in the context of the projects mentioned above, the contrast of light and shadow was not been the focus in itself. The aim of this study was to develop a technique for use of controlled shadow which would enhance child photographic portraits, and would be acceptable to photographers in terms of being commercially viable.
The specific research objectives were as follows.

1. To explore the connotations of shadow in visual representations, and how this might affect treatment of shadow in commercial photography.

2. To ascertain to what extent shadow is used for portraiture in photographers' commercial practice, in particular, for child portraiture, and the reasons for this.

3. To develop a technique for use of controlled shadow in portraiture, in particular, in child portraiture.

After a review of the literature in the field of visual culture and technical aspects of shadow in Photography (as provided in Chapters 2 and 3), the following research questions were framed to guide the investigation:

1. What are the connotations of shadow and what are the possible effects of this on commercial photography practice?

2. To what extent is shadow used for portraiture in photographers’ commercial practice, in particular, for child portraiture, and what are the reasons for this?

3. What technique/s could be developed to encourage photographers to use controlled shadow in their commercial practice, in particular, in child portraiture?

1.6 Main themes of the research

The main themes of the research are described below. They comprise visuality, which needs to be understood in the context of visual culture (a second theme); the nature of visual depiction in photography; the importance of technique as opposed to digital effect; and finally, the theme of shadow itself.

1.6.1 Visuality

The concept of visuality is one of the main themes of the study and speaks to the saturation of our everyday experiences in images. The ability to absorb,
deal and interpret all this visual information is the legacy of an industrialised society, and is becoming all the more important in the Information Age. This is not a natural human attribute, but a relatively newly learned skill. Modern visual culture has focused more and more on over-stimulating our visual senses: the latest mobile phones focus almost exclusively on digital image enhancements, almost omitting the fact that the telephone was invented so that people could *talk* to each other. Our everyday experiences are now far more visual and visualized than ever before. This study has revealed that “visuality” is a phenomenon which occurs in combination with other media and aspects of the contexts in which it is embedded, including the context of digital technology.

1.6.2 Visual culture
The combination- and context-laden nature of visuality requires an understanding of the concept of visual culture, which emerged as another main theme of the study. Visual culture incorporates a philosophical and epistemological stance which acknowledged visuality as being central to the disposition of the world, and is concerned with “visual events in which information, meaning, or pleasure is sought by the consumer in an interface with visual technology” (Mirzoeff 2009: 3).

Since the digital revolution, the media have been hugely influenced by the ease, control and speed which digital technology offers. However, the results of this “over-tampering” may interfere not only with the principles of aesthetics, but also with the veracity of the image in terms of misrepresenting what is portrayed. Apart from the Consumer Council and Advertising Standards Authority, the media are generally left to their own devices and are self-regulated; the parameters of moral, ethical responsibility and acceptability appear to be blurred. The amount of image tampering can best be described as extreme. A critical angle is to examine the vast scope of visual experiences in postmodern culture, and especially the description and imitation of Western culture which has evidently been embraced by other cultures and can be observed in commercial photography worldwide. This would include the migration of traditional analogue photographic methods to
the “new age” of digital technologies, coupled with cultural transformations and resulting ethical considerations of the phrase “The camera never lies”.

1.6.3 The nature of visual depiction in photography
This brings us to another main theme, the nature of visual depiction in photography. While it is accepted that there are a great variety of photographic viewpoints, visual culture’s influence on photography can be best described by blurring two common definitions of what photography is. These are as follows: photography is a method for recording a moment of reality or event, and a medium for commentary or interpretation of the world we live in (Swanepoel 2005: 202). Thus every photographic image exists as a transfiguration. A photograph consists of a lived reality that is captured through mechanical means, filtered through the eyes of the subject responsible for the photograph. The viewer ultimately uses the picture to come to an understanding that outlives the short moment of a captured instant, and so reality is transfigured (Swanepoel 2005: 219). While this study endeavoured to explore photography as a communicative process between the viewer and a complex relationship with reality as defined above, another concern is the morality and ethics of the extent of manipulation and tampering that is applied. How does this influence the social sensibility of the viewer? What impediments and obstacles do photographers face? Do over-touched, glossy commercial images satisfy existing needs in the viewer, and actively promote present trends, or do they create new and unobtainable needs? This study goes some way to exploring these issues.

1.6.4 Technique vs. digital effect
Expertise and professionalism, as well as insight into the nature of visuality and the technical mechanisms of image capture are identified as being more fundamental in this study to achieving quality images than the “quick fix” of the digital “app”. The photographer is more than a technician: s/he is a professional who uses technique to achieve aesthetic effects. Like the artist, the photographer must strive to understand the medium, materials and tools, and the various techniques involved in using these in order to achieve the desired aesthetic effect. Many of the effects discussed in this dissertation
have their origin in Fine Art, and the photographer who develops techniques to achieve aesthetic effects is just as much an artist as the painter, and just as much a master of the craft involved.

1.6.5 Shadow
Shadow itself is a major theme of the study, and is considered fundamental to the production of images, textural cues, mood, characterisation, and symbolism. There are two aspects of shadow featuring in this dissertation: the cultural aspect (comprising interpretative, aesthetic and commercial) and the technical. Shadow, particularly harsh shadow, has traditionally been viewed as sinister, and any kind of shadow is currently discouraged in depictions of children, whom convention requires to be portrayed as angelic, and therefore, without shadow. The portrayal of very young children (i.e. from new-borns to toddlers) on glossy magazine covers is almost entirely restricted to bland, over-retouched, one-dimensional images without any lighting effect to portray texture, character, moulding and definition. However, shadow use is a technique used to mould and manipulate facial features and to reveal (or hide) idiosyncratic personal features such as dimples and nose shape; this was amply demonstrated by Rembrandt and other painters. Therefore, a portrait without shadow can inevitably come across as flat and bland. For this reason, use of controlled shadow is the researcher’s chosen technique, combined with minimal digital retouching, to present a more realistic depiction of young children than the present offerings. The practical part of this master’s study is a photographic exhibition printed on canvas presented to demonstrate this technique at an appointed gallery (the images to be exhibited are displayed in Appendix D).

1.7 Definitions of key terms and concepts
Brief definitions of key terms and concepts are given below, with more detailed definitions (including definitions of subsets and associated terms) being provided in the course of the dissertation.
1.7.1 Definition of visuality
Campbell and Schroeder (2011: 1) state that visuality is the method in which selected ways of seeing the world are created and that these creations are powerful because they affect how we see, are able to see, or are made to see.

1.7.2 Definition of visual culture
There is no agreed-on definition of visual culture in the literature, and it has been described in both interdisciplinary and multimedia terms (as will be discussed in Chapter 2). However, Mirzoeff’s (2009: 2) definition comes closest to the way in which visual culture is interpreted in this study: “visual culture is concerned with visual events in which information, meaning, or pleasure is sought by the consumer in an interface with visual technology”. Mirzoeff defines visual technology as: “any form of apparatus designed either to be looked at or to enhance natural vision” (2009: 2).

1.7.3 Definition of aesthetics
Aesthetics refers to what is considered beautiful, artistic or “sublime” about an image (or views of objects in the world). Providing a more precise definition immediately runs into problems, as this is dependent on prevalent conventions (i.e. as to what is considered beautiful), local and cultural tastes, as well as personal opinion, amongst many other determining factors. As Hume (1910: 271) suggests, beauty has no quality in the things themselves; it merely exists in the mind that contemplates them, and each mind perceives a different beauty. This is why current local responses to the aesthetic effect of soft shadow in child portraiture needed to be investigated in this study, as aesthetic effect cannot be taken as a universal “given”.

1.7.4 Definition of controlled shadow
Controlled or “soft” shadow is defined as the result of large or soft/diffused light sources (Langford 1989: 223-224), such as an overcast sky, or point light with a diffusing material covering the bulb (e.g. tracing or wax paper). The larger and closer the diffused light source is to the subject, the softer the light, resulting in a softer, gentler shadow. The soft shadow effect produced
(see Figure 1.1) is in contrast to sharp (i.e. harsh) shadow, which is the result of the most compact, point-like light source, such as a spotlight, projector, small flash unit, household clear lamp, lighted match or direct light from the sun or the moon (Langford 1989: 111-112).

1.7 Value of the research

It is thought that the research has value in showing the inter-relationships between the following aspects of visual representation in photography:

- technical,
- aesthetic,
- interpretative, and
- commercial.

Figure 1.5 Gorjus (Mann 1992: 42)

These aspects, which were identified as significant for this study, emerged in the context of exploring the field of visual culture, which provided a
theoretical grounding for the study. As both the review of the literature and
the empirical work have suggested, these aspects are interlinked in complex
ways. The advent of digital photography has tended to link aesthetic effects
with the use of cutting edge hardware and software. This, in turn, has
implied that what can be done should therefore be used to achieve the best
aesthetic effects, which is not necessarily the case. As a result, excessively
photo-shopped images in which imperfections are digitally airbrushed to
achieve “perfection” are becoming the norm. As this dissertation will attempt
to show, achieving aesthetic effects by technical means first requires a
consideration of what aspects of images might be considered aesthetically
pleasing. This may depend on, amongst other things, culture, custom, era
and fashion, all of which affect the interpretation of images as pleasing, banal
or sinister. There is no point in achieving advanced technical effects in
photography unless the end product is in some way aesthetically pleasing or
considered artistic.

This has consequences for the commercial viability of freelance photography:
the idea is not to “give people what they want” in terms of “cute” stereotypes
of big-eyed children with whited-out and therefore blemish-free complexions.
It is, rather, to replace the bland flatness of cartoon-type cuteness with
delicate depth dimensions which sensitively reveal character, rather than the
current bland child stereotypes. This dissertation will suggest that use of
controlled shadow can in fact achieve a “depth of soul” in photographs which
is not achieved by quick digital effects, but is the result of studying both
technical and aesthetic principles, and applying them in ways so that the end
product will not be interpreted as sinister or “shady”. Technical principles
were reviewed in this dissertation, firstly to see what effects might be
achieved with shadow; next, to see what would fit the purpose, in terms of
what the review of visual culture had suggested about use of shadow; and
finally, so that the researcher could develop an effective technique for using
controlled shadow in child portraiture.
1.8 New contribution to knowledge
As the previous section has suggested, photographic techniques (i.e. technical) which are used with the purpose of achieving aesthetic effects must be carefully considered in terms of how the resulting images are interpreted by potential clients (including production houses), if such techniques are to become commercially viable. To the researcher's knowledge, this is the first such study which has tested out these issues by exploring the technical and aesthetic aspects of child photography, and investigating how these are interpreted by both photographers and potential clients to establish the commercial viability of the effects achieved. The technique developed shows photographers how to control negative lighting, and is, in a sense a technique for “painting with shadow” which offers photographers a new perspective on child portraiture.

1.9 Conclusion: overview of the rest of the dissertation
An overview of the rest of the dissertation is given in this section:

Chapter 2 first looks at the concept of visual culture, which is the orientation within which this study is conducted. Next, some key definitions of visual culture are interrogated, with technical, aesthetic, interpretative and commercial aspects being identified as relevant to the use of controlled shadow in photography. It is concluded that, even though shadow is an important and well-studied ingredient of visual cognition, is it basically under-utilised (if at all) as an aesthetic element in commercial photography, mainly because of its possible negative connotations.

Chapter 3 continues the theme of visual culture with respect to its technical aspects. The chapter first looks at digital technology as a means of enhancing images. It then focuses on the technical aspects which are involved with producing shadow in general and controlled shadow in particular, with particular reference to producing aesthetically pleasing results in portraiture. The chapter concludes with the specific research questions framed to guide the inquiry into under-use of shadow in child portraiture, and
the development of a technique whereby a pleasing aesthetic effect might be achieved through use of controlled shadow.

Chapter 4 deals with the methodology used to arrive at answers to the research questions identified in Chapter 3. First, an overview is given of the research design used, operating within an interpretative research orientation and using a mixed methods approach. The research tools used are then described, namely questionnaires, surveys and the development of an experimental technique for achieving controlled shadow effects.

Chapter 5 deals with the results of the inquiry. Firstly, the findings from the photographers’ questionnaire are used to show, from their perspective, where shadows disappear and why. The photographers’ and their clients’ attitudes to shadow and the significance of it within this genre are then described. Next, the parent survey indicated the commercial viability of images using controlled shadow. Finally, a description of the developed controlled shadow technique is given, detailing camera settings, the equipment used, and the rationale for both.

Chapter 6 provides the general conclusions of the inquiry in answering the specific research questions. It then makes recommendations for the practice of commercial photography, as well as for further research into the use of shadow in photography. The chapter concludes with the personal insights which the researcher obtained in the course of the research journey.
Chapter 2: Shadow and visual culture

2.1 Introduction
Chapter 2 first looks at the concept of visual culture, which is the orientation within which this study is conducted. As there is little agreement on the definition of visual culture (see Bal 2003, Elkins 2002 and Mirzoeff 2006), some key concepts of culture are first discussed. Next, some key definitions of visual culture are interrogated, with technical, aesthetic, interpretative and commercial aspects being identified as relevant to the use of controlled shadow in photography. These aspects are then discussed in more detail, drawing on the literature in the field. It is concluded that, even though shadow is an important and well-studied ingredient of visual cognition, it is basically under-utilised (if at all) as an aesthetic element in commercial photography, mainly because of its possible negative connotations.

2.2 The concept of visual culture
According to Irvine (2011: 1) visual culture recognizes the predominance of visual forms of media, communication and information in the postmodern world. It merges popular low cultural forms such as media and communications with high cultural forms such as fine art, design and architecture. This approach acknowledges the reality of living in a world of culturally meaningful experiences which appear in a multiple samples of visual form. Mirzoeff (2009: 1-2) indicates that this is further multiplied by images of modern life taking place more and more on screen. Citizens of industrialised countries are increasingly living under video surveillance whether on highways, or in shopping malls, banking halls or the workplace. Televisions and mobile devices take the place of these “safety measures” when we are locked up at home. The human experience is now far more visual and visualized than ever before. Visual culture also incorporates a philosophical and epistemological stance which acknowledged visuality as being central to the disposition of the world. Visuality is a way in which a methodology of ways of seeing the world is created. These creations are
authoritative because they affect “how we see, how we are able, allowed, or made to see” (Foster 1988: 10).

Foster’s definition is pertinent to this study as it is directly connected with the conundrum of shadowless photography. This study indicated that, given a choice, more than half of the consumers questioned indicated a preference for shadow inclusion in child portraiture. However, they are currently not offered this option because photographers have been conditioned to think that shadow inclusion is not viable commercially. This would indicate that visual culture as a term refers not only to visual aspects of culture as a scholarly discipline, but offers implications for the understanding of consumer culture (Campbell and Schroeder 2011: 1506). Western culture has consistently honoured the written text as the highest form of intellectual practice and has tended to regard visual forms of representation as second rate illustrations. Now the emergence of visual culture as a disciplinary field has challenged this practice. With this development, Western philosophy and science now tend to use a pictorial rather than textual model of the world. This is a significant challenge to the notion of our world seen as a written text (Mirzoeff 2009: 5).

However, there are critics to this direction as a modern/contemporized field of study taken by many authors, as argued by Smith (2008:9). Visual culture studies indicate a cultural convergence with the emergence of globalization. With its over-attention to the present, globalization is said to highlight encounters with recent communication technologies at the expense of historical and critical forms of earlier forms of visual culture. A study of Seventeenth Century Dutch painting reveals incredible attention applied to detail, in representation, appearance, cartography and visuality. Alpers (1984: 27-39) describes how theoreticians of the Italian Renaissance taught the discipline of reading in various layers of visual order to elicit multiple levels of significance which are philosophical and allegorical in nature. These are all decidedly not contemporary practices. Smith (2008: 9) claims that this is surely a structure of values that would enable the viewer to extract meaning by seeing and not reading. In addition to this, developments from
the 60s to the 80s in Marxist Art History, feminism, gay/lesbian studies and politics are an attestation to a continued commitment to interrogate the histories of visual cultures. Can visual cultural studies be confined to visual, perceptual and philosophical realms as a stand-alone entity? Duncum (2004: 252) argues that, if we turn down the volume of a television set, we find out how important the dialogue is to understanding the programme. Should we mute the sound track to a video game, we discover how essential the sound effects and music are to the complete experience of the game. Each of these activities of cultural significance contains more than the use of the perceptual, visual and cognitive system alone, and relies on the essential added element of audio. Therefore visual cultural studies may need to include auditory elements as well, thus expanding the genre.

Duncum’s argument that cultural activities contain more than just the visual suggests that a more integrated approach would need to include forms of audio and text as well. Examples of cultural artefacts include: i) magazines, ii) product packing, and iii) text advertisements, and these three products have text combined with imagery. They are silent, however, and the attraction is a synergistic experience of a combination of image (visual) and text (literary/linguistic structure) which is designed to inspire the consumer to purchase the product. A suitable definition of visual culture might require a multiple-angled approach, such as visual culture being a combination i) of text and visual, ii) audio, iii) technical, iv) cultural, and v) commercial elements.

2.2.1 Definitions of visual culture

There is no agreed-on definition of visual culture in the literature. As Cambpell and Schroeder (2011: 1506) point out: “Research on visual culture tends to revolve around at least three complex and wide-ranging concepts: representation, meaning and culture”. In order to determine a feasible interpretation of visual culture, a selection of disparate definitions will be explored, in particular, those of Mirzoeff (2009: 2), Duncum (2004: 252) Campbell and Schroeder (2011: 1506), Irvine (2011: 1) and Jay (1994: 3). These definitions highlight various interdisciplinary perspectives that theorize
how visual culture is constructed and consumed in the contemporary world. Visual culture should also be seen as organic, as it is evolving all the time, and with the accession of singularity (merging of man and machine), an even greater spread of interpretations lies ahead.

2.2.2 Elements in the definitions relevant to this study
There are various elements in the definitions given below which are relevant to this study, as will be discussed in this section. Firstly, some of the key elements will be identified, and then the main aspects guiding the study will be discussed.

Mirzoeff (2009: 2) gives the following definition of visual culture:

...visual culture is concerned with visual events in which information [communication], meaning [semiotics], or pleasure [aesthetics] is sought by the consumer [commercial] in an interface with visual technology [technology]. By visual technology, I mean any form of apparatus designed either to be looked at or to enhance natural vision.

Mirzoeff’s definition mentions four key elements (see boldfaced words): communication, semiotics, aesthetics, and technology. Moreover, while he clearly meant “consumer” to refer to the beholder (i.e. of the visual event), it brings to mind the commercial aspect of photography, and the fact that the other aspects must be combined to make an image commercially viable.

Duncum (2004: 252) suggests that visual culture is made through an interaction [communication] of music, the spoken voice, sound effects, language, and pictures. This shows that it is an interaction between communicative modes [multimodal communication], as Duncum’s definition mentions the multimodal interactions which generate meaning/s - that is, communicate - at many different levels.

Campbell and Schroeder (2011: 1506) describe visual culture as “a philosophical [ethics] and epistemological [how knowledge is made] stance that acknowledges visuality as central to the constitution of the world”. Campbell and Schroeder go on to say that this visuality is the method in
which selected ways of seeing the world are created [culturally-conditioned perceptions] and that these creations are powerful because they affect how we see, are able to see or are made to see [we see what we have been culturally conditioned to see.] Campbell and Schroeder’s definition reveals the significance of ethical and cultural elements in the way we portray and see things, as well as the ways in which knowledge is created (i.e. affected by cultural and contextual influences).

According to Irvine (2011: 1), a study of visual culture “recognises the predominance of visual forms [immersed in images] of media, communication, and information in the postmodern world”. His approach acknowledges the reality of living in a world of cross mediation [multimodal], and that the experience of culturally meaningful visual content appears in multiple forms [multimodal]. The visual content of visual culture migrates from one form to another [digital media]. Irvine’s definition repeats Duncum’s point about visual communication being multimodal, that is, visual themes can be repeated in different and new media (e.g. “selfies” in canvas now captured in digital mode). Irvine also makes the point that we are saturated in images.

Jay’s (1994: 3) definition repeats Irvine’s point that we are saturated in images, and also mentions the cultural loading of images and the power of visual communication:

…the pervasiveness and power of the image. Western [culturally-conditioned perception] culture means that it is a central way to represent issues in society - to the extent that Western intellectual thought in the later 20th century experienced a “pictorial turn”, where the image assumed a privileged status in its ability to reflect and communicate the world [power of visual presentation].

2.2.3 The four elements of visual culture informing this study

Four elements in the above definitions were identified as informing this study, as follows:

- technical
- aesthetic
This fits in to some extent with Mirzoeff’s (2009: 2) suggestion that “visual culture is concerned with visual events in which information, meaning [both subsumed under “interpretive”] or pleasure is sought by the consumer in an interface with visual technology”. Campbell and Schroeder’s (2011: 1506) suggestion that a study of visual culture involves at least three complex and wide-ranging concepts, representation, meaning and culture, is also relevant to this study. However, in this study these elements are viewed as being subsumed under the interpretative aspect. Some of the further elements were viewed as subsets, as will be discussed below.

In short, the photographic technique developed in this study was intended to enhance the aesthetic effects of child portraits by using controlled shadow so that viewers would interpret shadow as an attractive and desirable (i.e. not sinister) attribute, thus improving the commercial prospects of child portrait photography (whether freelance or commissioned).

a. Technical

Technical aspects can be seen (i.e. in this study) to be inextricably interconnected with the other three aspects. This is because technical means are being developed to achieve the desired aesthetic effects, and have a great deal of influence on how images are interpreted. What has emerged in the discussion of the concept of culture above suggests that there are no “innocent” or “raw” images, but that artifice is involved to some extent in not only the processing but also the capturing of images. In this study, technical means are used to “soften” hard shadow, thus also softening the harsh connotations with which western culture has loaded shadow (i.e. as being potentially sinister). Thus the “technical” has direct relevance for the interpretation of the image (i.e. as being softened, deepened and more attractive). This, in turn, has implications for the commercial viability of such shadow-treated images, which is the ultimate application of the technique developed in this study.
b. Aesthetic
Mirzoeff mentions the “pleasure” which “is sought by the consumer in an interface with visual technology”. Clients commission child portraits for the pleasure of displaying and looking at representations of their offspring, and therefore achieving an aesthetic effect is a key element of this study. Paradoxically, in this study, the hitherto sinister effect of shadow is being transformed using technical know-how so that it might achieve a pleasing effect.

c. Interpretative
Campbell and Schroeder’s suggestion that a study of visual culture involves at least three complex and wide-ranging concepts, namely, representation, meaning and culture, is highly relevant to this study. However, these elements are viewed as being subsumed under interpretative aspects, as are some others listed below (i.e. those identified in the definitions given above):

- communication
- semiotics
- interaction
- knowledge
- multimodal [digital]
- ethics
- perceptions
- cultural context
- power

“Communication” is a two-way interactive process involving representation and interpretation of messages in various modes (i.e. is “multimodal”). “Semiotics” plays a crucial part in understanding how meaning is arrived at. How messages (including visual images) are represented and interpreted is dependent on cultural conditions and the context in which the interaction takes place. What passes for “knowledge” is also determined by cultural and contextual influences. “Ethics” is here represented under “interactive” in the
sense that good and evil connotations can be part of the message communicated by visual (and other) communication. This leads us to the fact that viewers’ perceptions of images are not necessarily “innocent” or “spontaneous”, but are influenced by the “cultural context”, often subtly (and we are told that Western culture predominates in the interpretation of images). Finally, visual images are thought to have great power (Jay 1994: 3), which accounts for their pervasiveness in both the social and commercial ambit, particularly in digital form, which enables transmitters to flood the world with electronic images.

d. Commercial

One of the factors motivating this study was the phenomenon of exclusively shadowless child photographs in commercial literature. One of many possible influences for this might be the technological advancements of digital photography at the disposal to all photographers and production houses:

Digital image modification has proven a capable tool for altering images with only human imagination as its limit. With modification, entire new worlds can be created to replace the unwelcome imperfections that humans face on a daily basis. As an escape from reality, the digital modification of photographs is an unprecedented means of recreating events for the comfort of the audience. The ability to create a virtual utopia through digital image modification is dually alluring and dangerous Hahn (2009: 114).

As Lipkin (2005: 64) observed, “It is not always easy to distinguish the utopians from the dystopians. All too quickly, wondrous prospects in digital technology can cause users and audiences alike to become jaded from reality”. The rapidly advancing technological developments in photographic capturing and the software whereby this is achieved are also affecting the commercial viability of images. For example, the mobile revolution that has swamped humanity has had an effect on how we view images. These future technologies may even enable the photographer/client to previsualize the final desired image, before the camera’s capture button is released and sent via Wi-Fi to the recipient’s brain for approval.
In order to investigate the commercial viability of shadow in print, it would be necessary to examine where, in the process of magazine production, shadow becomes excluded. The magazine production process involves i) client request/brief, ii) photographers personal retouching, iii) agency retouching, and iv) the printing process. Establishing where shadow might become excluded might ascertain a closer understanding, from the view of photographers in the commercial industry, as to where and why the absence of shadow is so prevalent. Following on this, an investigation would be needed to ascertain whether, from the consumers’ viewpoint, whether they would purchase un-retouched images that included shadow, as opposed to the present over-retouched shadowless style. The result might hopefully clarify reasons for the origins of shadowless photography as well as for offering corporate and private clients alternative options.

The next two sections will look in more detail at what the literature revealed about the viability of shadow in commercial photography. Firstly, interpretative aspects are discussed, in terms of the connotations of shadow which might make it a commercially undesirable aspect of images. Next, the principles of aesthetics are examined, so that these might be applied to the process of making shadow effects not only pleasing but commercially desirable. Technical aspects of shadow are investigated in the next chapter, so as to establish the means whereby aesthetically pleasing shadow might be depicted in visual portrayals.

### 2.3 Interpretative aspects of shadow

Shadow can be interpreted as the “darker” side of the personality or the “shade” (i.e. spirit of the departed), neither of which connotations would be acceptable in child portraiture. Harsh shadow is often used in films (and film posters) to show suffering, villainy, or going over to “the dark side”. However, not all connotations of shadow are sinister, as will be shown by a selection of stories, myths and legends in which shadows play a key role.
2.3.1 Shadow as the darker side of the personality
The psychologist Jung identified the shadow, or the shadow aspect, as part of the unconscious mind, consisting of repressed weaknesses, shortcomings, and instincts. According to Jung (1938: 131), “everyone carries a shadow, and the less it is embodied in the individual’s conscious life, the blacker and denser it is”. This trait is instinctive, irrational, and prone to project, that is, turning a personal inferiority into a perceived immoral deficiency in someone else (Jung 1951: 147). However, Jung also believed that “in spite of its function as a reservoir for human darkness - or perhaps because of this - the shadow is the seat of creativity” (Kaufman 2007: 1). Bly (1988: 7) describes shadow as a hidden part of our (darker) personality. Our parents and teachers encourage us to develop the more positive aspects of our character so that we may become successful and happy; however, this is to the detriment of our hidden shadow side, which becomes starved of energy.

2.3.2 Shadow as the essential spirit or soul
Dolar (1991: 11-12) finds that shadow and mirror images are analogues of the body, or its immaterial double. This is a means to represent the soul which survives the body due to its immateriality, so that the reflections and shadows constitute our essential selves. The reflected/shadow image is thus actually seen as more fundamental than its owner, and is our essential being, or soul. This is our most valuable part and that which make us human. Dolar (1991: 6) further explains the essential philosophical pairs of essence/appearance, mind/body, subject/object and spirit/matter dualities which traditional thought has constantly made an effort to separate and differentiate between. This is the Yin Yang paradigm, the “bonded relationship of opposites” of the metaphysical and physical, shadow and the subject. It suggests that a complete human personality is a composite of light and dark aspects, which may explain why the faces in child portraits from which all shadow is removed appear as lifeless and un-animated as those of porcelain dolls. A dappled or softened (i.e. not harsh) shadow effect might then be seen as completing the picture, not necessarily clouding it or making it sinister per se. However, the idea that shadow represents the soul (i.e. of
the departed) might cause some (perhaps unconscious) resistance to this effect being used in wedding or child photographs.

2.3.3 Shadow signifying sinister intent in film
Semiotic analysis can be used to show how shadow signifies sinister (or direful) intent in film, by focusing on iconic representation of characters (and theme) in film posters, where the message needs to be conveyed economically and quickly. Two popular schools of semiotic analysis are the “Greimas and Barthes” theoretical schools. The Barthes method focuses on the description of explicit signs taken in isolation, a connotative interpretation is subsequently offered, and an analysis of the context is important in order to understand the text. The Greimas method of structural semiotics moves beyond the meaning of each single sign in order to analyse it as part of a holistic network organized by different levels of depth (Cian 2012: 68). For the purpose of showing how semiotic analysis operates, an elementary version of both as described by MediaStudiesSaltash (2011: 1-39) will be used. In order to develop an ability to use semiotics to analyse visual codes in media texts and images we need to divide the image into specific segments to apply what is said about it. Segments include the following:

a. **Icon**
The signifier (denotation) is perceived as resembling or imitating the signified (connotation) (e.g. model or picture of something or someone).

b. **Index**
An index has a factual or casual connection that points towards its object (e.g. smoke indicates fire).

c. **Symbol**
A symbol has an arbitrary relationship between the signifier and the signified (e.g. the word for a thing or person).
d. *Metasymbol*

This is a symbol whose meaning transcends the tangible realm of simple one on one relationships (e.g. dove with an olive branch as a symbol for peace, red cross symbolising medical service) (MediaStudiesSaltash 2011: 1-39, slightly adapted and shortened).

Consider the semiotic descriptors of denotations (literal) and connotations (implied) of shadow on the following two images in Figure 2.1, advertising the films *The Matrix* and *Gladiator*. The use of harsh shadow in the film posters in Figure 2.1 needs to be interpreted in the context of the meanings conveyed in each of the segments shown in Table 2.1 (the symbolism of which is culturally determined). In Figure 2.1a, the central dominating figure (icon) of Neo is heavily shaded, although his stance is confrontational, an effect aided by the gunslinger coat and heavy rifle (*metasymbols*).

![Image](https://via.placeholder.com/150)

Figure 2.1 Harsh shadow used with sinister effect in film posters
Yet he is “The One”, come to save humankind from a degrading pseudo-existence (as *batteries* for the overlord machines), and he grasps the weapon as if it were a prophet’s staff (his long black coat is also reminiscent of priestly vestments). He is, then, an iconic figure as militant prophet and saviour. The white streams of computer code (*index*) indicate that his struggle will be in, and with, the ersatz electronic reality of the Matrix (*symbol*) created by the code, with faithful allies “leathered up” in sinister fashion and, like Neo, wearing “shades” (*metasymbol*). The sunglasses are not only reminiscent of the soulless agents who at first dominate and torture him, but, in covering his eyes with pools of darkness, give Neo himself a soulless, almost brutal quality, which is offset only by the purity of his facial features. In the context of the messages conveyed by the other symbolism, the heavy darkness of the shadow concentrated in Neo’s figure signifies a harrowing battle against overwhelming odds.

Table 2.1 Denotations and connotations of images in film posters

<table>
<thead>
<tr>
<th>Figure 2.1a</th>
<th>Figure 2.1b</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Icon</strong></td>
<td></td>
</tr>
<tr>
<td>Central dominating figure of Neo</td>
<td>Lone figure of Roman general, Maximus Decimus Meridius</td>
</tr>
<tr>
<td><strong>b. Index</strong></td>
<td></td>
</tr>
<tr>
<td>White streams of “code” in the background</td>
<td>Arches of the Colosseum in the background</td>
</tr>
<tr>
<td><strong>c. Symbol</strong></td>
<td></td>
</tr>
<tr>
<td>The word “matrix”</td>
<td>The word “gladiator”</td>
</tr>
<tr>
<td><strong>d. Metasymbol</strong></td>
<td></td>
</tr>
<tr>
<td>Long leather coat and rifle</td>
<td>Roman armour and sword</td>
</tr>
</tbody>
</table>

While the composition and use of shadow in Figure 2.1b are similar to that in Figure 2.1a, there are significant differences. While the warrior Maximus is also a central dominating figure (*icon*), he is alone, and his face is in deeper
shadow. His stance is martial, but patient rather than confrontational, and his figure is lit up from behind by cloudy golden light, as opposed to the drab monotones of Figure 2.1a. While Neo is the prophet/saviour, Maximus is the iconic warrior, fighting bravely against odds, yet demeaned to the status of a gladiator (symbol) slaughtering fellow-gladiators as entertainment for the baying city mob (a situation signified by the index of the Colosseum arches). Yet the metasymbols of armour and sword are that of a proud Roman general, not a lowly gladiator. His face is almost completely in darkness, signifying that there will be no “happy ending”, and the dark pits of his eyes show despair (as his wife and son are dead, he has nothing to live for). However, the golden glow of his breastplate is echoed in the golden glow of the aura surrounding him, signifying that: “What we do in life echoes in eternity,” and that his reputation as a brave Roman facing overwhelming odds will live after him.

2.3.4 Shadow in story, myth and legend
Exemplars from the depiction of shadow in story, myth and legend (provided in more detail in Appendix A) confirm to some extent what has emerged in the sections above, that how shadow is perceived is very much a question of the context in which it appears. The “cute” shadow of Peter Pan (Figure A.1) in the Disney cartoon version becomes a ghoulish nightmare figure (Figure A.2) in the adult television series, Once upon a time. The shadows in the folk story of Peter Schlemihl (Figure A.3) and the epic tale of Princess Damayanti (Figure A.6) signify the presence of true humans as opposed to wraiths or phantoms: the presence of shadow is in fact re-assuring in that context, not sinister per se. The story of Alexander and Bucephalus serves to remind children not to be over-afraid of unexplained phenomena (i.e. “be afraid of one’s own shadow”), and to apply their human logic to solving problems, as the boy Alexander did. The cartoon of Lucky Luke “getting the drop” on his own shadow (Figure A.5) shows shadow as being an inferior copy of the “real deal” (i.e. the human gunslinger casting the shadow), and echoes the notion of Peter Pan’s shadow sitting meekly while the “master” (Peter Pan himself) tries to solve the problem of his shadow’s becoming detached from his body.
The notion that shadows are inferior copies is also found in Plato’s myth of the cave (Figure A.8), which is used to explain that what humans are capable of perceiving is a limited and incomplete projection of “true knowledge”. According to Sontag (1977), the fact that photographs, like the shadows in Plato’s cave, are reflections of something real, gives them more credence than writing or illustrations. In the Greek myth of Narcissus (Figure A.7), the young Narcissus sees his “shadow” (i.e. reflection) as more perfect than himself, to the extent that he falls in love with it.

Pliny’s mythical explanation of the birth of painting shows it as arising from the tracing of the outline of a shadow projected on to a wall (Figure A.9). The notion that the first forms of representation arose from a negative is taken by Stoichita (1999) to imply that Western artistic representation was part of an absence/presence theme. In other words, it signified the absence of body and presence of its projection (i.e. shadow, Stoichita 1999: 7 and 154). Yet even in Pliny’s era, volume, relief and body were being represented in painting, so that the area within the outlined shadow projection was being “fleshed out”. In fact, contrary to the notion that they are flat and featureless, shadows contribute important information to our perceptions of objects in the real world (see section A.5 in Appendix A). Modern-day scientific studies of perceptions of shadow have been used to explain how humans perceive and understand real objects, showing that infants show sensitivity to depth information in cast shadows.

2.3.5 The changing nature of visual images
Grundberg (1990) believes that appearances have proved deceiving, especially in photographs. According to Grundberg (1990: 210), “photographic images give us the comfort of an apparently fixed rendition of the world, but when we examine them closely we find that they are no more reliable than memory”. Perhaps Mirzoeff’s (2006:13) assumption that the postmodern destruction of reality is accomplished in everyday life is more poignant than previously understood. This can regularly be seen in the bizarre happenings that pass for “normality” in the press: we can now see the collapse of reality in everyday life from the mass visual media.
Mirzoeff (2006: 6) argues that initial moves towards visual culture studies are a recognition that visual images are not stable in their meaning, but change their relationship to exterior reality at particular moments of modernity. Lyotard (1993: 9) expands on this by declaring, “Modernity, wherever it appears, does not occur without a shattering of belief, without a discovery of the lack of reality in reality - a discovery linked to the invention of other realities”. Barthes (1981: 4) implies that photography is a collaborative event in which the photographer and the audience engage in a creation of meaning towards the image. Hahn (2009: 5) suggests that, “while the photographer has the power to determine the parameters of the photo, it is ultimately the audience which decide what to focus on and take from the image”. Barthes (1981: 9) remarks that “every photograph requires the creation of a power relationship between the person being photographed, the photographer, and the viewer of the image”.

2.4 Aesthetic aspects of shadow

The idea of shadow being advanced as a technique/symbol of aesthetic application and relevance has, in itself, two fundamental problems. Firstly, Western culture, as suggested above, has very diverse connotations of shadow, although harsh shadow tends to signify foreboding or evil. Secondly, definitions of aesthetics may at be at best “oxymoronic” or somehow self-contradictory, and it may be impossible to reach consensus on a universally acceptable definition.

2.4.1 Definitions of aesthetics

The term aesthetics received its name in the eighteenth century from the philosopher Alexander Gottlieb Baumgarten (1714-1762), who introduced it in his Halle master’s thesis Meditationes philosophicae de nonnullis ad poema pertinentibus (Philosophical meditations pertaining to some matters concerning poetry). This basically meant epistêmê aisthetikê [the science of what is sensed and imagined] (Baumgarten 1754: 86-87). Besler and Latta (2008: 11) expand on this concept of “perception by means of the senses” to
describe the aesthetic evolution into two interrelated areas: the philosophy of art and the philosophy of aesthetic experience.

The philosophy of art confronts the question of what constitutes art, namely, the impossibility of defining art due to the varying focuses on different art movements, theoretical foundations and social contexts, through to the creative impulse that supports all human activity. The philosophy of aesthetic experience contends with the nature of encounters with the arts, which include artefacts and various phenomena (e.g. shadow) that possess aspects susceptible to aesthetic appreciation. While some theorists would lean towards the appreciation and enjoyment of art, others find the aesthetic in a way of knowing and experiencing the world (Bresler and Latta 2008: 11).

Kant (1911: 82-181), the 18th century German philosopher, applied deep thought to this endeavour and defined aesthetics in terms of aesthetic judgment and taste. Aesthetic judgment emphasizes the interest in art rather than the artwork itself. Artwork is beautiful as it instigates intellectual activity which is cognitive (reflective judgment). It stirs intellectual involvement with the world in which a sense of order prevails by which the world can be articulated and kept in balance. Beauty is a feeling induced by our sense of order and value that lies beyond any explicit demonstration. Taste involves the judgment that a thing is beautiful. This is a subjective judgment referred by our imagination to the feeling of pleasure or displeasure that the object arouses in us. It is the representation of the object rather than the object itself is what is at issue in this judgment. Taste is not about personal feelings but requires intellectual effort, not whimsical or happenstance occurrence. Aesthetic judgment, then involves the development of common sense (the development of an expectation in how others will concur with our judgments). This means that social (including cultural) agreement is required as to what is deemed beautiful. Like beauty, the sublime causes pleasure and provides no determinate conception for its judgement.

However, the sublime is unlike beauty in that it is pre-eminently a quantity. It suggests the formless and absence of limitation. The imagination is
overwhelmed by the immensity of what is to be represented; wonder and awe are provoked (Copleston 1994: 1-4). Burke (1757: 115), an Irish philosopher (who would later influence Kant), describes sublme objects as “vast in their dimensions, beautiful ones comparatively small; beauty should be smooth and polished”. He adds that beauty should not be obscure, but light and delicate; the “great” ought to be solid and even massive. Even though they are ideas of a very different nature with an infinite variety of combinations, one is founded on pain, and the other pleasure. Furthermore, as these combinations occur in objects, they must also be expected to occur in art. If qualities of the sublime and beautiful unite, does this prove that they are the same, or allied? “If black and white blend”, soften and unite a thousand ways, are there no black and white? Is the power of black as black and white as white as strong when each stands uniform and distinguished, or when combined? This relates directly to the role of shadow in creating an aesthetic effect, which is the focus of this study.

According to Hume (1910: 217): “It is natural for us to seek a Standard in Taste; a rule by which the various sentiments of men may be reconciled; at least, a decision afforded, confirming one sentiment, and condemning another.” Beauty, he claims, has no quality in the things themselves; it merely exists in the mind that contemplates them, and each mind perceives a different beauty. This is similar to Kant’s (1914) view on aesthetic judgment, but, as Hume (1910: 217) explains: “All sentiment is right; because sentiment has a reference to nothing beyond itself and is always real, wherever a man is conscious of it.”

2.4.2 Shadow as part of aesthetic appeal
Khan and Vogel (2012: 28) reveal that, in addition to spatial composition, the balance of high-lights and shadows is an important factor for aesthetic appeal. They state that to define the shape of the face, it is preferable to light the face from one side using a soft/diffused light source so that one side of the face is illuminated while the other is partly covered by shadow (note that this is done with heavy shadow on the side of Maximus’s face, in Figure 2.1b). This is a similar effect to the style made famous by Rembrandt
(chiaroscuro) and his contemporaries, and is used by photographers today (see Figure 2.2). This technique involves the model’s face being off centre and being lit from behind and furthest from the camera in such a manner that a small triangle of light forms under the eye on her cheek closest to the camera. The eyes need to be sharp and the shadow edges soft. No matter the quality of the light, or how soft and gentle it is, it is the shadow surrounding the light that creates the mood and the success of the image shadow. Note that this is similar to the result achieved in Figure 2.1b, which has an ennobling effect on Maximus’s features, showing resolve in facing tragedy, yet his eyes are dark, and not sharply defined.

![Figure 2.2 Rembrandt lighting example (Meijer 2011)](image-url)

Baxandall (1995: 77) describes how the term *chiaroscuro* or *clair-obscur* was used in two distinct senses in the eighteenth century. “One is the working of light and shade in the world in general, a phenomenal thing”, and the other, “is the artistic arrangement of light and shade in pictures, an aesthetic and often normative thing”. This doctrine of *chiaroscuro* provided a system of where both analytical concepts and the complexity of shadow placement could be deciphered in forms of observational culture.
Forgione (2014: 490) illustrates a crucial episode in the history of pictorial shadow in the late nineteenth century. Shadow shed its secondary role and took on a primary function. Shadow was reconceived as an expressive entity in itself shedding its status as mere accessory to form. This was further articulated by Gauguin in 1988 who recommended substituting “the shadow” for a person in art work. Forgione further clarifies the growing alertness to shadow’s expressive potential by identifying the expanded use of shadow from the human form to landscapes. Maurice Denis’s *Procession under the tree* (1982) epitomizes this new approach “in which the elaborate curvilinear shadows cast by largely unseen branches read as primary rather than subsidiary elements” (Forgione 2014: 490). Their function as a decorative element renders them far more important to the composition than the tree itself.

2.5 Conclusion
The review of literature on visual culture suggests that the role of shadow and its interpretation in photographic images is by no means clear cut. While there is evidence that shadow is very much a part of achieving aesthetic appeal in portraiture, negative interpretations of shadow as a “faint” echo of oneself, and as a “shade of the departed”, as well as the use of harsh shadow for sinister and foreboding effects, mean that its use must be treated with caution in certain situations. In particular, portraits of children, or depictions of occasions such as weddings, must not be “overshadowed” in any way so as even to hint at impending tragedy. However, it is clear from the literature that, in photographs, shadow does not necessarily signal what is there, but what the photographer wants us to see. Exploring the concept of visual culture and its various definitions led to conceptualising the focus of this study as follows: the development of a photographic technique to enhance the aesthetic effects of child portraits by using controlled shadow so that potential clients would interpret shadow as an attractive and desirable attribute, thus improving the commercial prospects of child portrait photography. However, this required a consideration of the technical, as well as social, aspects of shadow, which are explored in the next chapter.
Chapter 3: Technical aspects of shadow in photography

3.1 Introduction
While the technical aspects of photography were identified as a feature of visual culture (see Chapter 2), they are dealt with in a separate chapter, as one of the products of this study is the development of a technique for producing aesthetic effects in child portraiture. This chapter firstly looks at digital technology as a means of enhancing images. It then focuses on the technical aspects which are involved with producing shadow in general and controlled shadow in particular, with particular reference to producing aesthetically pleasing results in portraiture. The chapter concludes with specific research questions geared to investigating reasons for under-use of shadow, particularly in child portraiture, and the development of a technique whereby a pleasing aesthetic effect might be achieved through use of controlled shadow.

3.2 Digital technology as a means of enhancing images
Entire professions have been established for the sole purpose of altering digital images (Hahn 2009: 5). This grants unprecedented power to the modifier (re-toucher). Mitchell offers a deep analysis of digital photography in the realm of visual culture, and most importantly, the meaning of shadows in photography:

Photographs appeared to be reliable manufactured commodities, readily distinguishable from other types of images. They were comfortably regarded as casually generated truthful reports about things in the real world, unlike more traditionally crafted images, which seemed notorious ambiguous and uncertain human constructions - realizations of ineffable representational intentions… But the emergence of digital imaging has irrevocably subverted these certainties, forcing us to adopt a far more wary and more vigilant interpretation…An interlude of false innocence has passed. Today, as we enter the post-photographic era, we must face once again the ineradicable fragility of our ontological
distinctions between the imaginary and the real, and the tragic allusiveness of the Cartesian dream. We have indeed learned to fix the shadows, but not to secure their meaning or to stabilize their truth values; they still flicker on the walls of Plato’s cave (Mitchell 1994: 225).

3.2.1 The quest for perfection using digital photography
This has, in turn, required the photographer as modifier to engage in ever-increasing forms of perfection-seeking in order to maintain an attentive audience. This trend in photography to increasingly modify images plays directly into Burke’s theory on the nature of perfection-seeking (Hahn 2009: 11). Reality is something quite different: “Our existence is perfectly structured as an imperfection”. As earthly creatures we have to expect and to be with comfort with imperfection (Hyde 2008: 23). As human beings we seem obsessed with the manipulation of images to represent quite the opposite. As a result, artists are using digital photography to make us acutely uncomfortable about equating photographs with reality (Lipkin 2005: 9). Hyde (2008: 3) argues that “although too much perfection can lead to disaster, not having enough of this specific pharmakon can also be dangerous for our health”.

3.2.2 The advantages and disadvantages of perfection-seeking
If perfection seeking is both necessary and an inevitable part of human lives, Hyde (2008: 9) and Razdan (2005: 59-60) illustrate the positives of this point by indicating how working towards perfection is what gets us out of bed every day, and how we strive for a better tomorrow. Hahn (2009: 11-12) states that there is no intention to criticize perfection-seeking behaviour, “but rather to understand its role in photography and the effects it has on our lives”.

Burke’s (1966: 16) argument for photography as being a vitally important form of communication is as follows: “Humans are a symbolic (creating and misusing) animal. The inventor of the negative, separated from his natural condition by instruments of his own making. Aroused by the essence of hierarchy, we are rotten with perfection.” Hyde’s (2006: 183) theory is that “perfection is something pure and simple, although…it can be transformed
into something egotistical, selfish and even rotten”. Modern digital photography is seen as a far more reliable and precise means of recording events in detailed perfection. The perfect detail in the results is a notion that our minds simply cannot encompass. Burke (1966: 19) explains how we as humans tend to use symbols (semiotics) as a means of understanding and interacting with the world around us. The manipulative use of representing images is like being an author with an idea for a book, and never resting until we are satisfied with the result.

There are those who praise technological advancements. Hariman and Lucaites (2007: 304) claim that “the advent of digital modification in photojournalism is an important means of ensuring that the general population is not victim to malicious propaganda”. However it must be noted that, if image modification can act as a liberator, we assume that only those with good intentions will utilize the technology. On the other hand, usage may allow individuals to “distort and criticize” the intended effect of propaganda campaigns, and create new and powerful ones (Hariman and Lucaites 2007: 305). Anderson (1919: 30) suggests that there has been an historical acceptance of modifying images post capture, although grudgingly. In his analysis he asserts that “a photograph cannot rank as a work of art unless it carries some suggestion of a lofty emotion, and…this result is rarely attained without the intervention of the artist himself through some hand work on either plate or print”. With the onslaught of modern digital manipulative software, Baudrillard (2001: 126) declares that it can no longer be taken for granted that “reality can be represented, that things give off signs which guarantee their existence and significance - in short, that there is a principle of reality. All of that is now collapsing with the dissolution of the subject”.

3.2.3 Ethical considerations of digital alteration
This convergence of digital manipulation and perfection seeking now begin to intrude into digital ethical behaviour of editors. Interviews with 13 magazine editors revealed the following with regard to present editing technologies:
Digital manipulation of photographs raises a different set of questions for magazine’s editors than it does for newspaper editors. Interviews with editors of 13 consumer magazines reveal that digital alteration depend largely on the editorial profile of the magazine. All editors interviewed refused to digitally manipulate news photos; however, opinions varied on the treatment of feature and cover photo’s (Reaves 1991: 175).

Hesterman (1987: 93) gives the results of a pilot study of 100 consumer magazines. They all indicated few ethical guidelines and a considerable lack of standard practices. What his research indicates is that, regardless of the photographer’s attitude to shadow, clients demand shadowless photography. What residual shadow remains is eliminated at the agency/printing house owing to the influence of the editor. Combined with the fact that consumers do not have the choice of shadow inclusion, this appears to merge into the realms of ethical practice, especially cover photo treatment. These findings illustrate that shadow is not treated as an individual entity, but within a larger collective group of elements is perceived to be undesirable, therefore removed from the image with a click of a button. Hahn (2009: 4) reveals that computer based modification of photographs has quickly become normal for both professional and amateur photographers alike (see Dent 2015: 11).

3.2.4 Reasons for rejecting digital alteration to enhance child portraiture

However, in this study, digital technology was rejected as a means of enhancing child portraiture. This is, firstly, because performance lags behind traditional techniques in achieving the desired effects (i.e. of achieving perfection of portrayal by delineating depth and character rather than by “whiting out” imperfections). Next, there is the dubious role of digital technology in leading us along the false path of “digital airbrushing” in seeking perfection, rather than have the photographer explore at first hand the intricacies of shadow effects, which will be reviewed in the next section.

3.3 Technical aspects involved in control of shadow

To follow up Anderson’s point that “this [artistic] result is rarely attained without the intervention of the artist himself through some hand work on either plate or print” (1919: 30), this section will deal with what photographers
need to know about shadow before putting in the “hard work” of developing effective techniques.

3.3.1 The technical nature of shadow
Firstly, what is shadow in a technical sense? Smith (2010: 119) describes shadow as follows: “The shadow is primal and ambiguous, both a creation of light and its antithesis. It is intangible yet inescapable, associated with yet disassociated from our individual identity”. Baxandall (1995: 1) takes a more pragmatic approach by describing shadow thus: “Shadow originates in a local and relative deficiency of visible light”. He adds, later: “Shadow has its origin in a first relation between the flow of light and opaque matter” (Baxandall 1995: 42). Mamassian (2004: 1279) states that “there are no shadows without objects.” Understanding and management of the available or chosen light source is the precursor to understanding and controlling shadow. This is the photographers’ key to failure or success. The retinal image can be drastically altered by the exclusion/inclusion of shadow combined with the light angle and type. In real world scenes would typically contain many types of shadow, but for the purpose of this study and the context to which shadow is aligned, two shadow forms will be discussed. These are cast and attached shadow, and are the primary result of lighting angle, lighting type, shape of subject, shape of the object casting the shadow. These two shadow types are governed further by the character of their light source; namely, point light source [hard] and diffused light source [soft] which will be discussed later.

3.3.2 Functions performed by shadow
Shadows have the ability to perform a variety of tasks. Bülthoff, Kersten and Bülthoff (1994: 1741) established the fact that shadows can cause flat objects to appear three-dimensional, and flexible motion to appear rigid. Cavanagh and Leclerc (1989: 27) revealed that shadows can provide information about three-dimensional shape. Erens, Kappers and Koenderink (1993: 145-156) showed that observers have the ability to use cast shadows to differentiate convex from concave contours in shaded images. Puerta (1989: 309-311) discovered that shadows are sufficient to produce stereo
depth perception. Berbaum, Bever and Chung (1984: 479-488) found that a cast shadow is one of pictorial depth which substantiates Bülthoff, Kersten and Bülthoff’s (1994) findings that shadows provide three-dimensional information even in two-dimensional pictures and photographs, and that these shadows can be used for identification of an object shape. Lalonde, Efros and Narasimhan (2010: 322) describe how detecting shadows in images can enhance several visual tasks, such as object detection and tracking in consumer grade photographs. Evans (1948:92) mentions the fact that shadows which fall on the objects casting them (connected shadow) give the effect of relief, and that cast shadows help us to locate a subject in space, by offering clues to the shape, direction and relative distance from the eye to the light source. Mathematically, cast shadows are projections, and these properties have been acknowledged since the time of Renaissance painters. Shadows also help to construct profiles, as attached shadows provide essential clues about the local surface features of an object (Casati 2004: 4-7).

Dee and Santos (2011: 233) describe several recent results from experimental psychology experiments that suggest that the human perceptual system prefers cues provided by shadow than any other information to derive a three-dimensional effect of objects. Bigelow (2013: 1) summarises the ideal photographer’s attitude to light and shade as follows: “Photographers are often urged to learn to read the light. However, reading the light is only half the challenge - one must also learn to read the shadows”. Bigelow reveals five pointers as to how shadow may used in an image to attain its full potential:

1. **Contrast and drama:** A powerful photographic tool is the use of shadow for the creation of contrast. This may be subtle to the dramatic depending on the intensity of the shadow. People’s attention is automatically drawn to the areas of tonal contrast.

2. **Focus:** “Shadows can be effectively used to focus a viewer’s attention”. Shadows assist to focus the viewer’s attention by removing clutter and less important detail from parts of the image.
3. **Directing the attention:** “Shadows can be used to direct the viewer’s attention”. Shadows often have shape, and when a shaped shadow points to the point of interest, the shadow will direct the viewer attention to the point of interest. This also has the opposite effect when shadow surrounds an area of light that directs the viewer to the centre of interest.

4. **Revealing form:** A common use of shadow is to reveal form. This often involves a low angled sun which casts long shadows. Any irregularities in the shape of the subject will be magnified.

5. **Revealing texture:** Shadow is also used to reveal texture (Photographic equivalent of touch). Similarly to form, it requires a low angled sun if outdoors or a low angled light if in the studio. A crucial difference between form and texture, is that with texture the photographer moves in close to the subject, or enlarges the image with a zoom lens (Bigelow 2013: 1).

### 3.3.3 Primary rules of shadow perspective

MacEvoy (2007: 6) defines primary rules of shadow perspective by considering six factors that will determine the shadow’s shape and appearance:

1. **Location of the light source:** in relation to the shadow casting object, the viewpoint, and the direction of view.
2. **Object geometry:** the shape and location (in relation to the viewer and the light source) of the object/material casting the shadow.
3. **Surface geometry:** on which the shadow is cast; is it rough, smooth, angular, irregular, light, dark, etc.
4. **Visual angle:** of the light source as seen from the shadow casting edge, this is termed the *projection ration* which determines the darkness and sharpness (as point light sources) of the shadow edge.
5. **Shadow distance:** between the object casting the shadow and the surface receiving the shadow, (a smaller distance also produces sharper shadows).
6. **Difference in luminance and colour:** between the light source creating the shadow and the light source (if any) shining into the shadow. A large luminance (brightness) contrast darkens the shadow and decreases the tinting caused by illumination into the shadow (MacEvoy 2007: 6).
3.3.4 Primary shadow types

Primary shadow types include attached shadows, cast shadows and shading.

a. Attached shadows

Attached shadows, as described by Mamassian, Knill and Kersten (1998: 288), are formed when a surface obstructs light falling on itself (see Figure 3.1). Langford (1989: 23) states that “light travels only in straight lines and in all directions from a light source”. This physical property of light will prevent itself from bending or wrapping around an object, and lighting the surface on the opposite side of where the light falls. Yonas and Granrud (2006: 154) explain that “attached shadows occur when an object’s shadow is visible on that same object, such as shading on a ball,” while Castiello (2001: 2305) points out that attached shadows are frequently the source of the “3 dimensionality” appearance of rendered objects.

![Figure 3.1 Definition of shadows](Mamassian, Knill and Kersten 1998: 289)

b. Cast shadows

Cast shadows, described by Mamassian, Knill and Kersten (1998: 288), are formed when one surface or object obstructs light from another surface. (see Figure 3.1). The shape of the shadow is determined by the shape of the obstruction, and is surrounded by light. Yonas and Granrud (2006: 154) describe cast shadow as occurring “when the shadow of one object is seen
on a different object or surface, such as a ball’s shadow on the ground”. The anatomy of a cast shadow contains three separate pieces of information:

1. The angle of the light beams
2. The shape of the object casting the shadow
3. The topography of the surface where the shadow is cast (Mize 2008:2).

c. *Shading*

In contrast to shadow, shading falls between the surface areas of lit and shaded surface, which results in a change of visual surface orientation and produces a more subtle effect (i.e. a limited area of light and shadow mix, Mamassian, Knill and Kersten 1998: 288).

### 3.3.5 Characteristics of shadow and their source

Langford (1989:111-112) describes six major lighting features: quality, direction, contrast, evenness, colour and intensity. Each has its own characteristics, but with regard to shadow, the quality of the light source is the most relevant. As can be seen in Figure 3.2a, the shadow is hard and clear-cut.

![Figure 3.2 Shadows caused by point and diffused light sources](image)

- a. Point light source (Pixar: 1)
- b. Diffused light source (Pixar: 1)

Figure 3.2 Shadows caused by point and diffused light sources
This is the hardest or sharpest type of shadow which is the result of the most compact, point-like light source. Examples of such light sources are a spotlight, projector, small flash unit, household clear lamp, lighted match or direct light from the sun or the moon. Even though the sun and the moon are huge in size, their vast distance from the earth forms a relatively small and compact light source in our sky.

Langford (1989: 223-224) further explains that the softest (controlled) shadow is the result of a large or soft/diffused light source shown in Figure 3.2b. These light sources are typically: an overcast sky, point light sources as described above but with a diffusing material covering the bulb. All hard/point light sources can be made to emit soft lighting by covering them with tracing or wax paper. Furthermore, the larger and closer the diffused light is to your subject, the softer the light, resulting in a softer, gentler shadow (Langford 1989:111-112).

3.4 The significance of shadow in photography

As this and the last chapter have attempted to show, shadows are an important and well-studied ingredient of visual cognition (Casati 2004: 13). Controlled shadow as an added aesthetic fits into the aspects of visual culture described above: semiotic, technical, aesthetic, interpretative, and commercial. However, it would appear that, in commercial photography, shadow is associated with other non-desirables in an image, and is therefore removed with them during the retouching process, if not already passed over in advance by the photographer’s lighting technique.

“Light was my first love!” exclaimed Sir John Herschel. “I have captured a shadow!” countered Henry Fox Talbot, who arguably invented photography in 1839. Talbot, a scientist with special interests in chemistry and light, was more taken with, and therefore motivated to achieve, the capturing of a shadow than the permanence of light itself (Schaaf 1992: xi). In conventional black and white photography, the negative has reversed tonalities compared to the real scene, where light areas are dark and dark areas are light. In
order to make a positive (i.e. standard print), light is passed through the negative onto a piece of photographic paper which is developed and fixed (rendered stable in visible light): this is the positive. It was this process that was grasped by Talbot, the reversal of shadows. This process he termed *Sciagraphy*, and was the art of depicting objects through their *shadows* (Schaaf 1992: 41-42).

![Figure 3.3 View from the window at Gras (Niepce 1826)](image)

French photographer Nicephore Niepce, who along with Talbot, is accredited with the invention of photography, took the image in Figure 3.3 at his villa. Early photographic material was very slow (insensitive to light) and needed an eight hour exposure. During this time the sun moved over head from east to west resulting in *shadow* being captured on both sides of the walls (Easby 2015: 1). From da Vinci to Talbot, shadow has represented a prominent element in their craft and inventions, yet it is almost entirely ignored in 21st C41entury commercial photography, and almost completely overlooked in child photography.

### 3.5 Conclusion

It has been suggested in the last two chapters that shadow is a key aspect, and yet a much neglected feature of photographic images, and particularly in commercial child portraiture. The aim of this study, then, was to focus on
how shadow could be “rehabilitated”, this by developing a technique for use of controlled shadow which would enhance child photography, and would be acceptable to photographers in terms of being commercially viable. The specific research objectives, to recapitulate what was stated in Chapter 1, were as follows.

1. To explore the connotations of shadow in visual representations, and how this might affect treatment of shadow in commercial photography.

2. To ascertain to what extent shadow is used for portraiture in photographers' commercial practice, in particular, for child portraiture, and the reasons for this.

3. To develop a technique for use of controlled shadow in portraiture, in particular, in child portraiture.

As pre-empted in Chapter 1, the following research questions were framed to guide the investigation:

1. What are the connotations of shadow and what are the possible effects of this on commercial photography practice?

2. To what extent is shadow used for portraiture in photographers' commercial practice, in particular, for child portraiture, and what are the reasons for this?

3. What technique/s could be developed to encourage photographers to use controlled shadow in their commercial practice, in particular, in child portraiture?

The next chapter will describe the research approach and methodology used to arrive at answers to the above questions.
Chapter 4: Research methodology

4.1 Introduction
This chapter deals with the methodology used to arrive at answers to the research questions identified in the last chapter, which were framed to investigate both the reasons for and possible solutions to the “porcelain doll” effect of shadowless child portraits. First, an overview is given of the research design used in this study, which took place within an interpretative research orientation, and using a mixed method approach. The research tools used are then described, namely questionnaires, surveys and the development of an experimental technique for achieving controlled shadow effects. The chapter concludes by suggesting the appropriateness for its purpose of the chosen research design.

4.2 Research design
According to Babbie et al. (2003: 647) research design is a “plan or structured framework of how you intend conducting the research process in order to solve the research problem”. The various elements of the research design of this study (see Figure 4.1) are as follows. In keeping with the topic, which deals with interpretation of shadow, this study adopted an interpretative orientation, identified with Habermas’s (1972: 308) hermeneutic paradigm (or “world view”, see Kuhn 1962). Mixed methods methodology was used within this orientation, in a pragmatic approach (Terrell 2012: 258) which combined quantitative and qualitative methods to establish both trends and the reasons for these trends. The mixture of methods involved using the following research tools: questionnaires, surveys and the experimental development of a photographic technique. While the literature review is not part of the research design per se, it is included in Figure 4.1. This is because the literature review informed the questionnaire and survey in terms of the need to establish the connotations of shadow, as well as identifying the technical aspects involved in developing a photographic technique using
controlled shadow. The resulting products of the research are (1) insight into commercial photographic trends currently operating, (2) a possible explanation for trends revealed, and (3) a technique developed for commercial photography using controlled shadow. The various elements of the research design will be discussed in more detail in the following sections.

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Figure 4.1 The research design used in this study

### 4.3 Interpretative research orientation

The basic orientation of this paradigm is “towards understanding” (Grundy 1987: 12), and the interest served is practical, in other words “a fundamental interest in understanding the environment through interaction based upon a consensual interpretation of meaning” (Grundy 1987: 14). This means that the hermeneutic paradigm emphasises understanding and communicative interaction. Moreover, the hermeneutic paradigm views human beings as “active creators of knowledge” (Schubert 1986: 181). To sum up, hermeneutics is a form of enquiry which focuses on symbols and how they
are interpreted, in other words, how we “discover or create meaning” (Higgs and Smith 2003: 130).

4.4 Mixed methods approach

Research has indicated in this study that there are two categories of data, qualitative and quantitative. In order to construct a “methodology” a merging of the two would seem most appropriate. Terrell (2012: 258) discusses the many major authors and researchers who feel that quantitative and qualitative research methodologies are compatible. This is because quantitative methods tell us if, and qualitative methods tell us why or how, social phenomena occur in the ways that they do. Paradigm relativism is “the use of whatever philosophical and/or methodological approach (that) works for the particular research problem under study” (Tashakkori and Teddlie 2008: 9). A pragmatic approach which combines both the qualitative and quantitative approaches within the different phases of the research process is a mixed-methods study (Tashakkori and Teddlie 2008: 22). Terrell (2012: 258) states that many social scientists “now believe that there is no major problem area that should be studied exclusively with one research method”.

Terrell (2012: 260) describes the factors that a multi-method approach depends upon:

- **Theoretical Perspective:**
  - Explicit – based firmly on a theory
  - Implicit – based indirectly on a theory

- **Priority of strategy:**
  - Equal
  - Qualitative
  - Quantitative

- **Sequence of data collection implementation:**
  - Qualitative first
  - Quantitative first
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• The point at which the data are integrated:
  At data collection
  At data analysis
  At data interpretation
  With some combination of the above

Terrell (2012: 260) defines six different approaches where a multi-method strategy is suitable (as for this study). As this is a unique project, various points were selected from each of Terrell’s six method approaches to suggest a suitable methodology which is relevant to this study. Terrell’s six methods are as follows:

2. Sequential Exploratory Strategy.
5. Concurrent Nested Strategy.

4.5 Mixed-method aspects adopted for this study
Aspects of the various elements described above have been adopted for the mixed method approach used in this study, as follows:

• There are two distinct data collection phases and either type can be collected first (from Sequential Transformative Strategy).
• Priority can be given to either or both data types (From Sequential Transformative Strategy).
• Data are integrated during analysis or possibly during the interpretation phase (from Concurrent Transformative Strategy).
• The primary purpose is for gaining a broader perspective than could be gained from using only the predominant data collection method (from Concurrent Nested Strategy).
The strengths of this approach are that both quantitative and qualitative data can be collected simultaneously, allowing for perspectives from each, thus providing the advantages of both methods. This approach is also familiar to many researchers, and results in shorter data collection time when compared to sequential methods. Moreover, it offsets weaknesses inherent to one design by combining both (from Concurrent Transformative Strategy).

The main weakness is that the research is limited both in terms of the breadth of generalization offered by quantitative research and the depth of detailed understanding offered by a qualitative research (from defining features). However, as Bazeley states:

Mixed methods are inherently neither more nor less valid than specific approaches to research. As with any research, validity stems more from the appropriateness, thoroughness and effectiveness with which those methods are applied and the care given to thoughtful weighing of the evidence than from the application of a particular set of rules or adherence to an established tradition (Bazeley 2004: 153).

Considering the three primary sources of evidence (i.e. literature, photographers' questionnaire and parent survey), the construction of an appropriate methodology was to incorporate the above strategies to successfully elicit the desired results, as follows:

- **Literature review**: The literature review was carried out to identify the elements of visual culture (i.e. technical, aesthetic, interpretative, and commercial) which might be considered relevant to this study (i.e. use of shadow in child portraiture).

- **Photographers' questionnaire**: This was to investigate whether photographers saw shadow as a pleasing visual effect, and were capable of incorporating controlled shadow as an additional technique (aesthetic and technical).

- **Parent survey**: The parent survey results would indicate whether the response to use of controlled shadow in child portraiture was pleasing,
and therefore whether incorporating this technique was commercially viable (commercial and aesthetic).

From the outset of the research, development of the photographic technique using controlled shadow was being carried out. However, chronologically this had to be completed before the parent surveys, as these required responses to images containing controlled shadow.

### 4.6 Research tools

This section describes the specific research methods used, namely, the questionnaires and surveys used to elicit information from the photographers and parents. It was decided that a 30-question questionnaire would be sent to practising professional photographers with the intent of eliciting responses which would be informative and explanatory. Next, a brief two-question “public-opinion poll” was designed for parents with children “from toddler to teenage” (i.e. magazine model age), parents who would also be clients for commissions of child photographs. This was order to ascertain whether such a photographic style based on the exemplar shown to parents would be commercially viable (i.e. whether they would buy photographs in this style). Anonymity was preserved for the respondents to both the questionnaire and the survey. The data obtained from the questionnaire and the survey were analysed in terms of how they provided answers to the research questions, and manually coded (Saldana 2009: 21) into the various elements and themes which were emerging.

#### 4.6.1 Questionnaire for photographers

Data was obtained in stages. Firstly, the photographers were emailed the questionnaire and hand delivered at a bridal fair. The group of photographers were selected from image credits noted in magazine and commercial outputs and personal associations. They all were at some stage working in the region of KwaZulu-Natal/Durban. The photographers were professional males and females whose ages ranged from the late 20s to 50+, and who had been practicing their craft for a minimum of five years full time. A portion of these photographers’ images were in the very same magazines
that the parents were likely to purchase. The ages of the children they photographed ranged from toddler to early teen; the children came from a diverse ethnic background, had varied socioeconomic status, and were those whose parents were more than likely to purchase toddler or children’s magazines during their nurturing.

The photographers’ questionnaire consisted of 25 “X marks the spot” closed questions, and 25 “please explain in your own words, how do you feel, and what your thoughts are” open-ended questions. Closed questions, according to Roulston (2008a: 83), “typically provide possible responses in the questions, request specific facts or information from interviewees or survey respondents, or may even limit responses to ‘yes’ or ‘no’.” An open-ended question, on the other hand, “is a type of question that researchers pose to research participants that allows them to select how they orient to the research topic” (Roulston 2008b: 582). This allows participants more freedom of response, but may, as a result, make it more difficult to analyse the data gained in this way.

4.6.2 Parent survey
The parent survey was administered to parents of approximately 50 children who attended a ballet school year end graduation. The survey was emailed to the recipients in MSWord format and supplied in hard copy (printed) to the attendees at a large bridal fair. The parents of the ballet graduates were shown two similar but different images (see Figure 4.2). A photograph captured outdoors was lit naturally, and contained controlled shadow as well as play (dirt) marks across the model’s face. This image was un-retouched and is illustrated in Image A in Figure 4.2. The second image, a duplicate, was retouched, and had the majority of the shadow removed (see Image B in Figure 4.2). The parents were asked a simple question to which the answer was a simple yes/no, followed by a brief explanation. The answers were filled out on an available answer sheet (this contained both qualitative and quantitative questions).
**Question:** Which image do you like? And why?

![Image A](image-a.png) ![Image B](image-b.png)

Figure 4.2 Images used in parent survey

The purpose of this survey was to establish whether there was any demand for child portraiture that included shadow, was naturally photographed and minimally retouched. If there was an alternative or complimentary style to the present (i.e. shadowless) format, this might help to establish whether there might be sufficient client demand for this approach. These particular parents were seen to be a feasible group for study as: i) all had children; ii) the grouped children were all of a similar age; iii) in all probability, members purchased, read or discussed children’s magazines (i.e. with shadowless child portraits); and iv) all were gathered together with the common purpose of getting their children photographed. This group then presented a good opportunity for investigating parent responses to the use of controlled shadow in child portraiture. As I was the photographer for this session, the reason for the survey could be explained and discussed with each parent.
individually (if requested) while they were paying for their chosen package of photographs (i.e. for the ballet shoot).

4.6.3 Experimental technique development
The third research tool used in this study was the development of an experimental photographic technique for the aesthetic representation of shadow in child portraiture. As the development involved a different approach from that used in surveys and questionnaires, this will be described in the section below.

4.7 Development of the controlled shadow technique
In order to develop a technique for using controlled shadow with aesthetically pleasing results, four experiments were carried out, as described below.

4.7.1 Experiment 1: tests showing the capability of the camera
In the first experiment, the researcher tested the capability of the camera by taking a series of portrait photographs out of doors without using any artificial sources of lighting. Photographs were taken at different times of day to determine the influence of different factors such as angle of sun, colour temperature of light and shadow angles. In addition, the model's face was placed at various angles to the sun to establish which areas of the face were illuminated and which fell in shadow, that is, how facial features influenced shadow shape. Finally, the dynamic range (i.e. ratio between highlight and shadow) of the camera was tested on three cameras.

4.7.2 Experiment 2: tests using artificial light sources
This was a “double technique” approach which, it was anticipated, might need to be used to rectify any problems encountered in Experiment 1, either by use of artificial light sources (i.e. reflectors), or external light (i.e. flash or tungsten), or on-camera flash units.
4.7.3 Experiment 3: tests using external light sources
It was anticipated that, once the means for creating the desired blend of shaped shadows had been found (i.e. in Experiment 2), further trials might need to be initiated with an external light source to soften or control the shadow.

4.7.4 Experiment 4: tests using pop-up-flash
Many modern cameras have what is termed a "pop-up-flash" built into them. They are generally not very powerful, but usually prove to be adequate for lighting a head and shoulders portrait in or out-of-doors. The reason for carrying out tests with Pop-up-flash was that it is a lot more mobile, versatile and easy to apply than other artificial effects.

4.7.5 Experiment 5: tests using portable external attached flash
As mentioned above, camera manufacturers produce many peripheral camera components, one of the most popular being external flash units, namely “Speedlights”. These units are more powerful, and multiple units may be synchronised with varying power settings to achieve the desired results.

4.8 Conclusion
The mixed method approach described in this chapter above was needed to establish certain viewpoints, using closed questions to establish certain facts, and open-ended questions to assist in understanding the photographer’s attitude towards shadow. This approach was intended to establish various perspectives from the photographers when questioned about the lack of shadow in the images produced for their clients. The consumer survey was designed to establish whether at some stage clients might accept, or even welcome, shadow-inclusive images. This approach does not allow us to generalize widely about the attitude towards shadow from a photographer’s and consumer’s perspective. However, it was hoped that it would provide a more in-depth understanding of the cultural model prevalent in this genre today. The results of applying the methodology described in this chapter will be discussed in Chapter 5.
Chapter 4: Research methodology

4.1 Introduction
This chapter deals with the methodology used to arrive at answers to the research questions identified in the last chapter, which were framed to investigate both the reasons for and possible solutions to the “porcelain doll” effect of shadowless child portraits. First, an overview is given of the research design used in this study, which took place within an interpretative research orientation, and using a mixed method approach. The research tools used are then described, namely questionnaires, surveys and the development of an experimental technique for achieving controlled shadow effects. The chapter concludes by suggesting the appropriateness for its purpose of the chosen research design.

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According to Babbie et al. (2003: 647) research design is a “plan or structured framework of how you intend conducting the research process in order to solve the research problem”. The various elements of the research design of this study (see Figure 4.1) are as follows. In keeping with the topic, which deals with interpretation of shadow, this study adopted an interpretative orientation, identified with Habermas’s (1972: 308) hermeneutic paradigm (or “world view”, see Kuhn 1962). Mixed methods methodology was used within this orientation, in a pragmatic approach (Terrell 2012: 258) which combined quantitative and qualitative methods to establish both trends and the reasons for these trends. The mixture of methods involved using the following research tools: questionnaires, surveys and the experimental development of a photographic technique. While the literature review is not part of the research design per se, it is included in Figure 4.1. This is because the literature review informed the questionnaire and survey in terms of the need to establish the connotations of shadow, as well as identifying the technical aspects involved in developing a photographic technique using
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4.6 Research tools
This section describes the specific research methods used, namely, the questionnaires and surveys used to elicit information from the photographers and parents. It was decided that a 30-question questionnaire would be sent to practising professional photographers with the intent of eliciting responses which would be informative and explanatory. Next, a brief two-question “public-opinion poll” was designed for parents with children “from toddler to teenage” (i.e. magazine model age), parents who would also be clients for commissions of child photographs. This was order to ascertain whether such a photographic style based on the exemplar shown to parents would be commercially viable (i.e. whether they would buy photographs in this style). Anonymity was preserved for the respondents to both the questionnaire and the survey. The data obtained from the questionnaire and the survey were analysed in terms of how they provided answers to the research questions, and manually coded (Saldana 2009: 21) into the various elements and themes which were emerging.

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Figure 4.2 Images used in parent survey

The purpose of this survey was to establish whether there was any demand for child portraiture that included shadow, was naturally photographed and minimally retouched. If there was an alternative or complimentary style to the present (i.e. shadowless) format, this might help to establish whether there might be sufficient client demand for this approach. These particular parents were seen to be a feasible group for study as: i) all had children; ii) the grouped children were all of a similar age; iii) in all probability, members purchased, read or discussed children’s magazines (i.e. with shadowless child portraits); and iv) all were gathered together with the common purpose of getting their children photographed. This group then presented a good opportunity for investigating parent responses to the use of controlled shadow in child portraiture. As I was the photographer for this session, the reason for the survey could be explained and discussed with each parent.
individually (if requested) while they were paying for their chosen package of photographs (i.e. for the ballet shoot).

4.6.3 Experimental technique development
The third research tool used in this study was the development of an experimental photographic technique for the aesthetic representation of shadow in child portraiture. As the development involved a different approach from that used in surveys and questionnaires, this will be described in the section below.

4.7 Development of the controlled shadow technique
In order to develop a technique for using controlled shadow with aesthetically pleasing results, four experiments were carried out, as described below.

4.7.1 Experiment 1: tests showing the capability of the camera
In the first experiment, the researcher tested the capability of the camera by taking a series of portrait photographs out of doors without using any artificial sources of lighting. Photographs were taken at different times of day to determine the influence of different factors such as angle of sun, colour temperature of light and shadow angles. In addition, the model’s face was placed at various angles to the sun to establish which areas of the face were illuminated and which fell in shadow, that is, how facial features influenced shadow shape. Finally, the dynamic range (i.e. ratio between highlight and shadow) of the camera was tested on three cameras.

4.7.2 Experiment 2: tests using artificial light sources
This was a “double technique” approach which, it was anticipated, might need to be used to rectify any problems encountered in Experiment 1, either by use of artificial light sources (i.e. reflectors), or external light (i.e. flash or tungsten), or on-camera flash units.
4.7.3 Experiment 3: tests using external light sources
It was anticipated that, once the means for creating the desired blend of shaped shadows had been found (i.e. in Experiment 2), further trials might need to be initiated with an external light source to soften or control the shadow.

4.7.4 Experiment 4: tests using pop-up-flash
Many modern cameras have what is termed a “pop-up-flash” built into them. They are generally not very powerful, but usually prove to be adequate for lighting a head and shoulders portrait in or out-of-doors. The reason for carrying out tests with Pop-up-flash was that it is a lot more mobile, versatile and easy to apply than other artificial effects.

4.7.5 Experiment 5: tests using portable external attached flash
As mentioned above, camera manufacturers produce many peripheral camera components, one of the most popular being external flash units, namely “Speedlights”. These units are more powerful, and multiple units may be synchronised with varying power settings to achieve the desired results.

4.8 Conclusion
The mixed method approach described in this chapter above was needed to establish certain viewpoints, using closed questions to establish certain facts, and open-ended questions to assist in understanding the photographer’s attitude towards shadow. This approach was intended to establish various perspectives from the photographers when questioned about the lack of shadow in the images produced for their clients. The consumer survey was designed to establish whether at some stage clients might accept, or even welcome, shadow-inclusive images. This approach does not allow us to generalize widely about the attitude towards shadow from a photographer’s and consumer’s perspective. However, it was hoped that it would provide a more in-depth understanding of the cultural model prevalent in this genre today. The results of applying the methodology described in this chapter will be discussed in Chapter 5.
Chapter 5: Results

5.1 Introduction
Chapter 5 deals with the results of the photographer questionnaires and parent survey, as well as the photographic technique developed in the course of the study. First the demographics of the group involved are given, including their education and photographic (or other) employment. This is followed by the photographers’ attitudes towards shadow inclusion in images. The results of the questions on possible industry influence on shadow inclusion and retouching are then given. After a summing up of the photographer result, the results of the parent survey are given, in terms of a possible preference for a child portrait with soft shadow. Finally, an account is provided of the controlled shadow technique developed in the course of the research. This details the camera settings and the equipment used, and provides the rationale for both the equipment and settings. The chapter concludes by suggesting that the results offer potential answers to the three specific research questions.

5.2 Results of photographer questionnaires
This section deals with the results of the photographer questionnaires. Firstly, it will deal with respondents’ demographics (including prior experience of child portraiture), next, with the attitude towards shadow inclusion in images from the photographers’ perspective and their clients’ briefs (commissions). At the end of the photographer questionnaire, answers to two final questions will detail the photographers’ commentary on the meaning of shadow in child portraiture (and photography as a whole), and their views on shadowless child portraiture in general.

5.2.1 Demographics of respondents
As shown in Figure 5.1, the majority age of respondents was in the 30 to 39-year-old group with 13 (48.1%), while the least represented were the 50+ at
three (11.1%). There were seven (25.9%) respondents in the 20 to 29-year-old group. The 40 to 49-year-old group consisted of four (14.8%) respondents. The 30 to 39-year-old group is large enough in number to move up to replace those photographers nearing retirement age.

Figure 5.1 Age of respondents

According to Figure 5.2, female numbers of respondents were in the majority, indicating an 11.1% greater representation (55.5% to 44.4%). This shows a positive trend, as, in the past, the industry was very male dominated right from the inception of photography to the recent past.

Figure 5.2 Gender of respondents
As stated earlier, the respondents were a well-educated group of individuals. The tertiary qualification most represented was a Diploma at ten, followed by a Degree at nine and a Higher National Diploma at eight (see Figure 5.3).

![Figure 5.3 Highest educational qualifications](image)

The respondent group of photographers had a wide variety of qualifications between them, as shown in Figure 5.4. The most represented course studied was photography at 66.6%, eight respondents switched their career to photography after studying in a variety of diverse fields.
As Figure 5.5 shows, of the 27 respondents, only 15 worked in the field of study after graduation. The largest group of “defaulters” consisted of Photography graduates. After 18 completed their Photography courses, only six worked in the photographic business while 12 did not. There are a variety of reasons for this: travel, not enough equipment, a gap year, employment in any job to save for equipment purchases, lack of transport, lack of confidence, lack of contacts but most sadly, lack of direction and passion for the game. The data suggest that, the more passionate one is about photography, the more successful one will become - with patience. This is corroborated by a repeated reason of “passion” for a career change to photography, as stated in the previous question.

![Figure 5.5 Employment prior to photographic career](image)

When asked how long the prior employment had lasted, the answers ranged from five to ten years. Two extremes were noted: one respondent had never worked in his chosen field of study, while the other had changed after one year in one field, and another has spent thirty years in a different field. As to the reasons given for career change for respondents employed in another field before photography, seven respondents did not answer while three answered “not applicable”. A third answered “not applicable”, but pointed that he had studied after school and then travelled. The list of reasons given for changing to a photographic career is as follows:
• Photography is my passion.

• I left the corporate world, where I served as a sales/marketing executive, to follow my passion in photography.

• I wanted to be one of three things, a priest, a pilot or a photographer...thank heavens photography won out.

• The passion for photography especially cinema photography. I wanted to follow a passion and didn't want to do it part time.

• I always owned my own business. When I turned 40 I experienced a life-changing event and as a result I re-evaluated my life and decided to do what I feel passionate about and committed to becoming a photographer, whilst being a mature artist complemented my work as a photographer.

• Passionate about photograph.

• Passion and like to play with the lighting.

• Passion, need to explore and be in control of own destiny.

• I followed my passion.

• I was employed as a Graphic Designer, but quickly got bored with the idea of sitting behind a computer screen for the rest of my life. At the time I was doing layout for a mag, and thought how nice it must be to out and about taking picture for a career. I decided to make an appointment at Natal Tech with Malcolm, who was the head of the Photography Department at the time. After meeting with Malcolm I knew I had found what I was meant to do, and at age 24 I started to study for my new career.

• I turned 30 and needed a career change, due to the boredom and frustration on my job.

• Was studying Journalism before switching to Photography. Photography was a module of Journalism course and just found I enjoyed it enough to enrol as a full time Photography student.
• I had an office job and couldn’t sit in front of a desk any longer. I needed to be on location meeting new people.

Figure 5.6 illustrates the years the respondents had spent so far in their photographic careers. The largest group of respondents were in the 0 to 4-year category at 33.3%. This group consisted mainly of respondents recruited at the large bridal fair, more mature in age, and where a majority of them had switched career to photography. The respondents who had spent the most amount of time practicing photography were in the commercial photographic field. These were also the respondents who felt that there was far too much retouching done on portraiture, and enjoyed shadows the most.

In terms of the percentage of photographic work relating to child portraiture (i.e. from the age of birth until 5), 55.5% of respondents fell into the category of 0-19%, 22.2% into the 20-39% category, 7.4% fell into the 40-59% category, 11.1 fell into the 60-79% category, and 3.7% into the 80-100% category (see Figure 5.7). As shown in Figure 5.7, work was predominantly location-based.
5.2.2 Attitudes towards shadow inclusion in images

Respondents were asked: “As a photographer; do you enjoy or find aesthetically pleasing the inclusion of shadow in an image?” They were also questioned as to where, from a photographer’s perspective, shadow disappeared or was removed in the production process. They were asked whether they even liked shadow, or know how to control and use it. As shown in Figure 5.9, 66.6% answered that they did enjoy shadow and found it aesthetically pleasing. Only 14.8% answered “no”, 11.1% replied “yes” and
“no”, while 7.4% did not answer at all. What is interesting is that the four who answered “no” were recruited at a bridal show which would indicate a bias towards wedding photography. The wedding genre is noted for its prominence of flat lighting, skin smoothing and shadowless technique on the bridal couple.

Added comments:
- Not always. Depends on the mood (W).
- I like natural photos. If there’s a shadow then there’s a shadow.
- I don’t like harsh shadows (or uneven light on the face).
- Though now that I think about it, I don’t really include shadow that much. I never really thought about it (W).
- Depends on the type of shot required (W Yes and No).

[W indicates a respondent recruited at a bridal fair].

![Bar Chart](chart.jpg)

Figure 5.9 The aesthetics of including shadow in images

Respondents were asked: “How would you consider the use of controlled shadow in your child portraiture, as an added aesthetic, an enhancement, impartial to shadow or undesirable”? As shown in Figure 5.10, a third of the respondents indicated that controlled shadow was an aesthetic, which is a greater proportion than those choosing enhancement, at 29.6%. 22.2% were impartial, of which four had a leaning towards wedding photography. Only
3.7% viewed it as an undesirable additive. 7.4% gave a double answer which was: i) aesthetic and enhancement and ii), enhancement and impartial, but with a comment: “It depends on how the shadow is controlled.” Therefore 62.9% indicated a favourable view of controlled shadow use.

![Figure 5.10 How shadow is viewed by photographers](image)

Respondents were asked: “Would you like to see the use of controlled shadow in child portraiture, or the ‘status quo’ which could be considered as ‘flat’, ‘bland’, and ‘retouched’?”

![Figure 5.11 Preferences for shadow inclusion vs. re-touching (i.e. shadowless)](image)
As a Figure 5.11 shows, 88.8% of respondents indicated a desire for inclusion of shadow in child portraiture, and 7.4% chose the status quo. Of the latter, one respondent’s main source of work was wedding photography; while the other indicated that shadowless lighting style was her preferred technique.

Finally, respondents were asked: “When photographing children, do you consider shadow as part of your lighting technique?” Figure 5.12 suggests that shadow, as indicated by 80.9% of respondents, is definitely considered a part of their lighting technique, as opposed to 19% who indicated that this is not so. Three of these were wedding photographers, and fourth (as discussed in the previous question) had given style as the reason for her preference.

![Figure 5.12 Shadow as part of the photographer’s lighting technique](image)

### 5.2.3 Industry influence on shadow inclusion and retouching

Answers to the question “Do your clients ever request the inclusion of shadow in their brief?” are shown in graph form in Figure 5.13. Not one client or commission had apparently ever required any form of shadow in their briefs, according to the respondents (i.e. 0% request). This is a significant finding, because, even though the photographers had said that they enjoyed shadow, and would have liked to see more of it in portraiture, they appear to be have been obliged to offer the clients what they wanted (i.e. shadowless
images). One respondent did indicate that perhaps the client should find another photographer if he/she was not happy with, or accepting of their particular style or taste. However, this would mean turning away work.

Figure 5.13 Requests for the inclusion of shadow in clients’ briefs

When asked whether they ever submitted images of children (i.e. to clients) with shadow present, 81.4% of photographers said that this was their practice, as shown in Figure 5.14. Note that this does not necessarily mean that the shadow was retained in the final publication of these images, as shadow might have been removed in further editing. 14.8% indicated that they did not, half of these respondents being recruited at a bridal fair.

Figure 5.14 Submission to clients of images of children containing shadow
Respondents were asked the following question: “When perusing consumer periodicals, how would you rate the amount of retouching on the cover models, especially children, if any?” The results (in Figure 5.15) show that the fact that cover models are retouched is taken as a given: it is just the amount of retouching which is debatable. It must be understood that the percentage estimated would to some extent be dictated from the point of view of the photographer’s style or genre. Figure 5.14 suggests that the greatest discrepancy was between the highest and lowest amount of retouching estimated. The highest percentage of retouching at between 80 – 100% was the most number of respondents at 25.9%, and the lowest at 14.8% which was the 40 - 59% group. The second highest group at 22.2% were the 60 - 79%, followed by the 0 - 39% groups at 18.5%.

Figure 5.15  Estimation of amount of retouching on periodical covers

Figure 5.16 shows photographers’ opinions as to whether the amount of retouching (i.e. that was estimated) which took place on periodical covers was justified. As far as the amount of estimated retouching was involved, two thirds (66.6%) did not agree with the amount of retouching which they thought was done. Two respondents did not answer, and 25.9% agreed with the amount of retouching estimated.
When asked for the reasons for their opinions as to whether the amount of retouching was justified, respondents replied as follows:

1) impartial
2) sure, with reason

Figure 5.16 Opinions as to whether the amount of retouching was justified

Respondents were also asked this question: “If any aesthetically placed or residual shadow was removed in this process, would you consider this an enhancement, impartial to shadow, an unfavourable action/retouching gone too far or a brief requirement?”

Figure 5.17 Interpretations of shadow removal
In Figure 5.17 the respondents indicated that this action would be an unfavourable action/retouching gone too far by an overwhelming 57.1%. The enhancement and impartial to shadow percentages were equal at 9.5%. 23% indicated that this action was part of the brief requirement, while 4.7% did not answer. One of the enhancement respondents added a view which was: “only because it’s what the industry demands”. Another commented that it was best to: “Shoot as close as possible” to the final result.

As Figure 5.18 shows, a majority of 70.0% of respondents indicated that they themselves edited and post-produce their images before sending them off. 14.8% had their work edited at the production house, while 11.1% of respondents had a combination of editing being done by themselves and at the production house.

![Execution of post-production](image)

Figure 5.18 Execution of post-production

Figure 5.19 shows what the respondents thought about where shadow removal took place in the photographic production process. When asked where they thought the greatest removal (i.e. of shadow) process occurred, 55.5% admitted that their lighting technique and style would be responsible for the lack of shadow in print form. 14.8% indicated that they personally remove shadow in post-production. 22.2% stated that shadow removal was the work of the agency/production house. 29.6% indicated that it was done
as result of the clients’ request (i.e. at the briefing stage) and 22.2% indicated that it occurred at more than one point in the process.

![Figure 5.19 Where shadow removal takes place in the process](image)

When the respondents were asked whether the amount of retouching taking place on child models was excessive to them, Figure 5.20 shows that 66.6% of respondents replied “yes” to the question, 25.9%, “no” and 7.4% did not answer.

![Figure 5.20 Acceptability of amount of retouching of child model photographs](image)

When asked, “Is shadow removal an automatic process in personal retouching?” 14.8% of respondents answered “yes” to this question and 85.1% responded “no” (see Figure 5.21). There was one comment which
showed that elimination of shadow was an issue even before the photographic shoot commenced: “I shoot so I don’t have a lot of shadows, it depends on the brief”.

When asked whether they thought that shadow removal was an integral and automatic part of production house processing (see Figure 5.22), 70.3% of respondents answered “yes” and 22.2% responded “no”. There were two who did not answer and one comment as follows: “Depends on the brief. There’s a big difference between a portrait of a child (where the parents
commissioned the shoot, in which case the shadow is ok) and a studio based catalogue shoot where the shadows are usually removed”.

Figure 5.23 shows responses to the question: “If any, what percentage would most represent your desire to see less retouching and a more natural “feel” to child portraiture?” All of the respondents indicated that they would like to see less retouching and a more natural feel on child portraits to various degrees. The least amount of respondents requested the smallest percentage of retouching at 11.1% in the two lowest categories. 18.5% of respondents in the 40-59% category and 22.2% in the 60-79% category answered “yes”. The largest number of photographers desired the highest amount of retouching reduction at 37.0% of respondents at 80-100%.

![Figure 5.23 Percentages indicating desire for reduced retouching](image.png)

The question answered in Figure 5.24 was as follows: “The ‘cute’ factor is often used to sanctify or legitimize shadow removal and strong retouching. What percentage of truth do you find in a statement like this, if any? (Your percentage please).” As Figure 5.24 shows, nine thought that the “cute” factor was not used to a large extent (i.e. below 50%) to legitimize shadow removal and strong retouching. Twelve thought that this was so, to a large extent (i.e. 50% and above). The largest number of respondents was only four, and they assessed his statement as only 50% true. The wide range of
responses suggests that the “cute” factor in itself is not necessarily used as the justification for shadow removal and strong retouching.

![Number of replies per percentage](image)

Figure 5.24 Percentages indicating influence of the “cute” factor in shadow removal and retouching

### 5.2.4 Attitudes to use of shadow in child portraiture

Respondents were then asked to respond to the following statement: “Briefly, would you describe what shadow means to you, if anything, in a child portrait context?” To this, six participants did not respond, while twenty-one did (see Figure 5.25).

![Comments on use of shadow in child portraiture](image)

Figure 5.25 Comments on use of shadow in child portraiture

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The comments of those who did respond are recorded in their entirety in Appendix C. The responses were manually coded, according to various groups and subgroups for ease of clarification and graph placement, in this way facilitating analysis of the data.

The following elements emerged in the photographers’ responses:

- Realism
- Expression
- Natural
- Emotion
- Innocence
- Client requirements
- Technique
- Dislike of shadow
- Glamour
- Aesthetics

The results are shown in Table 5.1.

Table 5.1 Results on use of shadow in child portraiture

<table>
<thead>
<tr>
<th>Elements</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realism</td>
<td>4</td>
</tr>
<tr>
<td>Expression</td>
<td>2</td>
</tr>
<tr>
<td>Natural</td>
<td>3</td>
</tr>
<tr>
<td>Emotion</td>
<td>4</td>
</tr>
<tr>
<td>Innocence</td>
<td>1</td>
</tr>
<tr>
<td>Client requests</td>
<td>3</td>
</tr>
<tr>
<td>Technique</td>
<td>6</td>
</tr>
<tr>
<td>Dislike of shadow</td>
<td>1</td>
</tr>
<tr>
<td>Glamour</td>
<td>1</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>1</td>
</tr>
</tbody>
</table>

From the photographers’ perspective, technique received the highest number of references, at six, or 28%, indicating that they perceived shadow as a technical aspect of their photography that needed to be considered. This
was closely followed by “Realism” and “Emotion”, at four, or 19%. “Natural” and “Client requests” followed on at three, or 14%, “Expression” at two, or 9%, and lastly, “Innocence”, “Dislike of shadow”, “Glamour” and “Aesthetics” come in last, at one apiece, or 4%. Apart from one photographer, who disliked shadow (which is in reality is only 4% of the received replies), all of the remaining photographers had positive input with regard to shadow. A few of the photographers were quite vocal about the use of shadow and the critical element it brings, and were quite disheartened about its neglect in the print media. It must be noted that three photographers, or 14%, said that shadow was to be treated as required by their given brief (“Client requests”).

The final request made to the photographers was as follows: “If there are any other comments you would like to make on the subject of shadowless child portraiture, please add these here.” These responses were also manually coded, according to various groups and subgroups, for ease of clarification and graph placement, therefore facilitating the analysis of the data.

The following elements emerged in the photographers’ responses to this question:

- Requirement
- Creative expression
- Mood
- Technique
- Professional necessity
- Aesthetic requirement
- Non-usable answers
- Natural necessity
- Importance
- It’s the Industry

The results are shown in Table 5.2.
The photographer’s responses were the fewest in number for the last request, with only thirteen replies, but the replies were the most useful in terms of the information they provided.

Table 5.2 Personal comments on shadowless child portraiture in general

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative expression</td>
<td>5</td>
</tr>
<tr>
<td>Mood</td>
<td>2</td>
</tr>
<tr>
<td>Technique</td>
<td>2</td>
</tr>
<tr>
<td>Professional necessity</td>
<td>1</td>
</tr>
<tr>
<td>Aesthetic requirement</td>
<td>1</td>
</tr>
<tr>
<td>Non-usable responses</td>
<td>2</td>
</tr>
<tr>
<td>Natural necessity</td>
<td>2</td>
</tr>
<tr>
<td>Importance</td>
<td>1</td>
</tr>
<tr>
<td>It’s the Industry</td>
<td>1</td>
</tr>
</tbody>
</table>

The highest number of responses in collated numbers was, shadow as a “Requirement” and as “Creative expression” at five each, or 38%. These were followed by “Mood”, “Technique”, “Non-usable responses” and “Natural necessity” at two a piece, or 15%. The final four were “Professional necessity”, “Aesthetic requirement”, “Importance” and “It’s the Industry”, at one a piece, or 7%. There were some responses which indicated that, no matter how much the photographer might appreciate shadow, and might want to include it, there was no desire for it from the clients or Industry at all.

The phrasing of the question: “Briefly, would you describe what shadow means to you, if anything, in a child portrait context?” was an attempt to elicit the photographers’ personal attitudes to use of shadow in child portraiture (as shown by the results in Table 5.2). However, the request: “If there are any other comments you would like to make on the subject of shadowless child portraiture, please add these here,” received more insightful data about shadow than when the respondents were merely asked to comment on use of shadow in general on child portraiture. This was because this request invited a response in comparison to the prevailing Industry standard, which requires flat and over-retouched photographs.
Basically the request was framed to probe what they would like to do (i.e. if they liked use of shadow) compared to what they had to do to remain commercially viable. Two candidates candidly admitted a dislike for shadow, but backed their augment up by commenting that shadowless photography was their preferred style and technique. The remaining photographers were mostly positive about shadow, and made perceptive comments about its use and significance meaning in the context of child portraiture. One respondent suggested that shadow was a professional necessity and needed to be present. Another presented a similar sentiment to that felt by the researcher, which was:

Children are already under pressure to grow up. There is plenty of time for them to have all the retouching when they are adults, but they are children for such a short time that my feeling is to portray them as they are at that particular stage of their lives.

This echoes Dent’s (2015: 11) complaint, cited earlier (pp.1-2), that over-retouching of photographs is “stealing our children’s innocence”. The majority of respondents seemed to agree that shadow is necessary to shape, contour and add dimension to the image, that is, essential for achieving a pleasing aesthetic effect.

However, the print media depict a different reality to the bland, washed-out, two-dimensional fashion that is prevalent today. The data suggest that the photographers’ personal interpretation of and preference for shadow is virtually overwhelmed by the “desires of the client”, and the “requirements” demanded by the industry. But where do the “desires of the client” come from? From what is continuously read and seen in commercial media, and what is continually read and seen will eventually be viewed as the reality. This leaves the Industry one option: to be profitable, your merchandise must sell, and you must do what you need to do, that is, you must sell.
5.2.5 Summing up of photographer data

The photographer data is summed up in this section in terms of the answers it provides to research questions 1 and 2, namely:

1. What are the connotations of shadow and what are the possible effects of this on commercial photography practice?

2. To what extent is shadow used for portraiture in photographers’ commercial practice, in particular, for child portraiture, and what are the reasons for this?

a. Connotations of shadow

As the chapters on visual culture made clear, interpretations of shadow are strongly dependent on context. Before considering how photographers interpret shadow, one needs to look at the context of interpretation, including the demographics of the photographers, and the commercial (or other) context in which they are engaged. The age group most represented were the 30-39 year olds at 48.1%. The least represented where the 40-49 and 50+ year olds at 14.8% and 11.1% respectively. Female photographers dominated in numbers by 11.1% (15 to12). A striking statistic was that all twenty-seven respondents had a tertiary education. The most-studied qualification was a Diploma, at 37%, followed by a Degree, at 33.3% and then a National Higher Diploma, at 29.6%. Two-thirds (66.6%) of the respondents studied in the field of photography but only six (22.2%) embarked on a photographic career after their studies, and the balance of 44.4% went into another field. Eight respondents (39.6%) all studied in various other fields and changed to photography later in life. All stated “passion for photography” as their primary motivator to switch. These sets of data suggest that an education in photography does not automatically grant the graduate access to a photographic career, but that the passion to do so will motivate them to adopt this career path.

Time spent practising professional photography varied from a few years to 50-plus. It must be noted that a large percentage of older personalities was placed in the shortest period practicing photography, indicating that the group
switched to this career later in life. With this switch came a more mature attitude and a wealth of experience and business acumen. The percentage of photographic work consisting of child photography was dominant in the 0-19% and 20-29% range at 55.5% and 22.2% respectively. Percentages were reduced after that. This indicates that 77.7% of photographers’ work photographing children is up to 40% of their total output, indicating that a substantial amount of child photography is being carried out. One photographer replied that 80-100% of her work was in the juvenile field. The commissions divided between the studio and location had a definite bias in favour of location. 40.7% of respondents photographed more on location than in the studio (which comprised 11.1% of participants). This suggests that photographers seek good locations and are aware of them, perhaps having “secret spots”; they are ideally positioned to capture natural portraiture in this situation. Eighteen (66.6%) revealed that they find shadow aesthetically pleasing in an image. Only four (14.8%) replied “no”, that they did not like shadow present, and three (11.1%) answered “yes” and “no”.

**b. Extent to which shadow is used in commercial practice**

What became clear through the data obtained in the questionnaires is that there are clearly two different schools of photography that have manifested themselves. Firstly, there is commercial photography, which encompasses many different fields including studio work, advertising, fashion, food, set building, corporate, and so on. This field requires a wide set of skills and experience, and data indicates that more of the mature photographers are based in this field. Secondly, there is the wedding and family portraiture photography. This genre is more singular in nature and is focused towards “the beautiful bride” syndrome. This form of photography has its own set of skills, with Photoshop/Lightroom playing a major role. Retouching and enhancement are paramount within this form. A select group of the wedding fraternity will go out of their way to minimise shadow in their work, even though they might personally enjoy its presence. The commercial photographers, on the other hand find it a necessity, and incorporate it very successfully to enhance their work. It is therefore apparent that the connotations of shadow, in particular, whether it is viewed as pleasing and/or
desirable in child portraiture, depend more on the photographic genre involved, and *commercial success in that genre*, than personal perceptions of shadow, which are positive on the whole. It also appears that photographers made assumptions about use (or not) of shadow in genres without necessarily checking out what their prospective clients might actually like. Ironically, the idea that aesthetically pleasing results might lead to commercial viability, as suggested in the literature review, is here reversed, as this chapter will suggest, with commercial viability driving the choice of photographic technique.

With this in mind it is easier to understand the following answers. Two thirds of respondents replied “yes” to the question: “Do you find aesthetically pleasing the inclusion of shadow in an image?” The four who replied “no” were recruited at the bridal fair. Three replied “yes” and “no” and two did not answer. The feedback from the question “why” from the previous question established the photographers’ views quite clearly. Only one respondent replied: “I don’t like shadows of people in my images”, one described the double chin/nose effect harsh shadows sometimes cause (this is a “no-no” in wedding photography), and one replied that he/she would attempt to avoid it if photographing on a white background. The remaining 23 photographers’ responses ranged from awareness of what shadow may offer, to wholesale enthusiasm. One respondent replied that it was to him as important as light. This data indicates a positive attitude towards shadow from a cross section of photographic fields outside of the wedding/family fraternity.

In the case of child portraiture, seventeen respondents acknowledged that shadow is deemed an added aesthetic/enhancement in child portraiture, as opposed to one photographer who found it an undesirable element. Furthermore, twenty-four photographers agreed that they would like to see shadow included in child portraiture, as opposed to two who preferred the status quo (flat and bland). In addition, twenty-four photographers considered shadow as part of their lighting technique when photographing children. The harsh reality is that photographers working for clients need to supply images constructed to the patrons’ desires. However, regardless of the
photographers’ aesthetic appreciation, the questionnaire revealed that not one client requested shadow, suggesting that what the clients want, the clients get. Notwithstanding the attempts by photographers who submit images with shadow present (as twenty-two replied that they did), shadow still was somehow removed in the end product, without any apparent explanation being given. In explaining this occurrence, nineteen respondents found this to be an unfavourable action, but nine understood it as a “brief” requirement.

With regard to retouching, respondents indicated unanimously that retouching occurred on child cover models. Almost half (thirteen) of the respondents’ suggested that the amount of retouching was between the 60-100%, range suggesting an over-enthusiastic approach to retouching (the “porcelain doll” effect). When questioned about this amount, two thirds of the respondents answered that there was excessive retouching, while seven agreed with the retouching. Twenty-one respondents mentioned that they would like to see a reduction of child retouching by an amount of between 40% and 100%. The photographers agreed that retouching is part and parcel of the digital photographic world and should be expected, but also drew a distinction between retouching and manipulation. Relevant opinion also suggested that retouching volumes were industry specific. For example, manipulation of a newsworthy event is a “no-no”, but advertising strives for perceived perfection, the creation of a supposed reality which is never attainable, and which therefore brings into question the ethics of doing this. A positive remark was that “you are first and foremost a photographer, your skill and technique in capturing a photo is what makes you the creator”. On questioning the respondents on where they felt the greatest amount of shadow removal occurred, nineteen replied it was their lighting technique (prompted by client request), and nineteen photographers indicated, that after image submission to agencies, residual shadow removal is an automatic part of their retouching.

Twenty-one respondents replied that controlled shadow was important to them within the context of a child portrait, and that over half of parents
surveyed would purchase a magazine with shadow inclusive content. The continued and readily acceptable (to some) genre of shadowless imagery is possibly the result of a “cultural positioning” fashion (as history has shown), which is controlled by the advertising/mass media industry. As one photographer said: “I never really thought about shadow,” and another: “just like Peter Pan, I would never think of removing shadow”. Consumers however, would appear to purchase what is available, and, owing to their busy lifestyles, do not really take the time to think about shadow.

5.3 Results of parent survey

As described in Chapter 3, the parent survey was carried out to establish the commercial viability of child portraits using the controlled shadow technique developed in this study. Parents attending their children’s end of the year Ballet Graduation photographic shoot were asked to view two identical images, choose a favourite, and explain why. One (i.e. image “A”) was unretouched and contained elements of shadow, and the other (i.e. image “B”) was retouched and shadowless.

Figure 5.26 shows the parent responses to the survey. Of all the parents present, 26 responded. 53.8% of those chose image “A” as their preferred image, 34.6% preferred the retouched and shadowless image, and 7.7% had a preference for both images. There was one spoilt survey paper.

Figure 5.26 Results of the parent survey
Reasons: Image A

- Brighter
- Looks more natural, like the sunshine.
- More clarity.
- Photo A looks real. Photo B looks too Photoshopped.
- More natural lighting.
- Looks more real.
- I like the shadow – it gives a sense of depth and character.
- Picture is clearer.
- Shadows give depth and character.
- Looks brighter.
- Looks much better.
- Natural light, no Photoshop or editing.
- Natural and more light.
- More natural/sun shines nicely.

Reasons: Image B

- Much neater and cleaner.
- More clear.
- Bolder.
- Softer.
- Because it is very clear.
- Its clearer, and the picture quality is better.
- Clear picture and his face looks better.
- Clearer picture / less reflection in the face.
- Clearer picture, no shadows over face / sore on his nose.

Reasons: Both images

- A - Love the natural lighting.
- B - The Photoshopped / Instagram (filtered effect) looks clean; no sore on face and no runny nose.
- A - Good colour but the child has marks on his face.
- B - No marks on the child’s face, but the image is dull.
5.4 The controlled shadow technique developed

Aesthetic aspects of the controlled shadow technique are described in some detail in Appendix D, Exhibition images, where elements such as age, clothes, pose, setting, play, natural (and other) objects, and emotional states are used to show the developmental stages in the photographer-researcher’s journey of discovery. A detailed commentary accompanies the photographs.

One of the greatest insights that the photographer-researcher experienced was the way he viewed his son. After the bitter-sweet yet relieved sentiments experienced on the completion of this project, Timothy was no longer viewed as a model, or an object to be photographed with a certain technique, style, or method, but just a little boy who wanted so desperately to be normal. He was viewed as the photographer-researcher’s son first and foremost, through sickness and in health. As he once said: “I’m sick and tired of being sick and tired, why can’t I just be normal?” It occurred to the photographer-researcher that he might have photographed his son differently if Timothy had not been the centrepiece of this dissertation. Things, events and places his family experienced with Timothy might have been treated in a more carefree manner, rather than as “props” and “locations” for a photo shoot. But Timothy himself exploded this notion: “But, Dad, we would never had sailed the way we did, holidayed at the places we went to, travelled to all those parties and jumped together on the jumping castle. Besides, I have the best photos ever of me to show my children one day!”

In terms of the aesthetic aspect of the technique developed, the photographer-researcher not only gained insights into and knowledge of the process of photographing children, and understanding light and, most importantly, shadow; he and his family also had a rich and fulfilled first seven years with their only-born, not only photographically, but in an adventure filled with travel, imagery, love and togetherness.

This section next focuses on the technical specifications of the technique. After several rounds of experimentation with various technical options (as
described in Chapter 4), the final technique used to capture soft shadow on portraits was arrived at, as will be described below. It must, however, be emphasised that the settings are specifically calculated to achieve the best results for achieving aesthetic effects with soft shadow, and go beyond the already well-known “fill flash” technique (Mancuso and Battiato 2001: 9), which is used to brighten deep shadow areas or to darken a background which is lighter than the subject.

The camera body in use was a Nikon D7000; the lens, a Nikkor AF–S DX 55–300mm f4.5–f5.6 ED VR; external flash, Nikon Speedlight SB – 900. During capture, the camera body must be constantly set to the aperture priority (Ap) programme. The aperture priority mode is indicated by the letter “A” on the mode dial shown in Figure 5.27.

![Mode dial](Nikon 2010: 6)

This setting allows the user to choose the aperture manually while allowing the camera to choose the shutter speed. This choice of programme (i.e. Ap) thus allows the photographer the choice of depth of field, while letting the camera’s computer adjust the corresponding shutter speed for correct exposure. This means that the photographer can track the subject continually without having to worry constantly about changing the exposure in varying lighting conditions. Adjusting the focus off centre allows the user to keep the
subject’s most important physical feature, the eyes, in constant focus position, as indicated in Figure 5.28. When a subject’s pose is seen as desirable, the shutter is pressed half way to focus, then a full depression will capture the scene. Using the settings described assists to minimise the time needed to take the actual shot and to “capture the moment”.

![Focus point](image)

Figure 5.28 Focus point adjustment (Nikon 2010: 51)

To explain some of the settings in more detail, the term “depth of field” is a technical one, used to describe the distance or amount of focus in front of, and behind the “point” of focus on the subject chosen by the photographer (where the camera is focused). Apertures are called “f” stops, and the bigger the number (e.g. f22), the smaller the aperture. The smaller the aperture, the greater the depth of field (i.e. more of the image is in focus). This works inversely as well: the bigger the “f” stop or the smaller number (e.g. f5.6), the less depth of field there is. This technique (i.e. of large apertures) is commonly adopted for portraiture and fashion alike owing to the minimal depth of field; this separates the background and foreground by blurring it, resulting in a separation of the model from his/her surroundings. There are two other factors that control depth of field as well: 1) the length of the lens, which is measured in millimetres, as, the longer the lens (i.e. the higher the number) the less the depth of field; 2) the closer the camera is to the subject, again, the less depth of field there will be.
The camera is set to the largest aperture this lens has (i.e. f4.5), the lens magnification at approximately 180mm (this does vary), while the external flash is set on half power using “through the lens” (TTL) metering mode without any softening (for contrast). The camera exposure mode is set to a 3.5\text{mm} diameter (approximately 2.5% of the frame) spot meter so as to expose the facial features correctly, and the camera body is set on Ap. The focusing point in the viewfinder is adjusted to approximately three quarters to two thirds of the way up in the viewfinder when the camera is held in portrait mode. This allows the photographer to focus quickly on the eyes of the model, reframe the image and press the shutter. With a minimum distance of four meters being kept between the camera and the model, consistent images are readily captured to the desired result. Finally, all that is needed are locations of interest with obstructions which break up direct sunlight (unless photographing early morning/late afternoon), and a willing model.

5.5 Conclusion

The data analysed in this chapter can be seen to have provided results which offer potential answers to the three research questions formulated after the literature reviews, and pre-empted in Chapter 1). The results go some ways towards explaining connotations of shadow in photography in germinal, and in child portraiture in particular. They also suggest that any enthusiasm for using shadow is tempered by caution in commercial use, with an Industry which proscribes any hint of tragedy in a “happy” (i.e. saleable) scene, and a clientele to some extent brainwashed by the Industry-controlled media yet tentatively willing to accept soft shadow and even a few blemishes as a more natural and faithful depiction of their offspring. The next chapter will use the results to come to general conclusions about the study, and from there, make recommendations for both practice and further research.
Chapter 6: Conclusions and recommendations

6.1 Introduction
In this chapter the conclusions are first summed up in terms of the answers to the specific research questions, namely:

1. What are the connotations of shadow and what are the possible effects of this on commercial photography practice?

2. To what extent is shadow used for portraiture in photographers’ commercial practice, particularly in child portraiture, and what are the reasons for this?

3. What technique/s could be developed to encourage photographers to use controlled shadow in their commercial practice, particularly in child portraiture?

On the basis of the conclusions drawn, recommendations are then made both for the practice of photography and for further research in this area. The chapter ends with some concluding thoughts on the study.

6.2 The connotations of shadow in photography and possible effects on commercial photography practice
When questioned about shadow in images and shadow in portraiture, two thirds of the photographer participants responded favourably. The responses supplied a strong argument for shadow possessing positive connotations in photographic child portraiture. The results suggest that, as photographers are involved in image creation and have to manage shadow manually at every stage of production, the majority of those participating in the study appeared not to have a negative attitude towards shadow, and actually found it necessary. In fact, only two respondents expressed an outright dislike of shadow. The possible effects of the predilection for using shadow on commercial photography practice are then positive, in terms of
photographers viewing shadow as part of their art and craft, and possessing great aesthetic potential.

Parents showed interest in and enthusiasm for untouched, more natural child portraits, but not in such numbers as the photographers. Thus, while this may indicate the potential for an emerging market, parents are clearly still influenced by the “porcelain doll” effect espoused by the media. They may in fact worry about being seen as “bad parents” if their children’s photographs reveal signs of dirt or neglect, as in the public’s outraged response to Sally Mann’s child portraiture (Mann 2015; Woodward 2015: 4-5). This is suggested by comments showing disapproval for such features as “sore on face”, “runny nose”, and “marks on his face”.

6.3 The extent to which shadow is used for portraiture in photographers’ commercial practice
In spite of photographers’ interest in its aesthetic use, and the hint of a potential market for parents desiring for “natural” depictions, currently use of shadow is prescribed by Industry and shadow removal is the order of the day. The amount of retouching required by Industry, and the emphasis on shadowless photography for “happy” occasions (e.g. weddings, scholarly achievements, parties) indicate the pressure put on photographers either to remove shadow in their work or not to protest if it is edited out afterwards. It is therefore apparent that the connotations of shadow, in particular, whether it is viewed as pleasing and/or desirable in child portraiture, depend more on the photographic genre involved, as well as commercial success in that genre, than personal perceptions of shadow, which (as shown by the results) are on the whole positive. It was also apparent that photographers made assumptions about use of shadow in genres without necessarily checking out what their prospective clients might actually like.

6.4 The technique developed for use of controlled shadow
This section provides an answer to research question 3, namely: “What technique/s could be developed to encourage photographers to use
controlled shadow in their commercial practice, particularly in child portraiture? This study has shown that the technical aspects of the technique for producing controlled shadow (described in Chapter 5) are easily mastered, once the camera is set up as per specifications. The aesthetic aspects, as the Exhibition images have shown (Appendix D), need to be worked through as a process of refining desirable characteristics and eliminating undesirable ones. While the Literature review has suggested some aesthetic guidelines, this is ultimately a matter of personal taste. The results suggest that this technique, once mastered, generates aesthetically pleasing child portraits which are in no way sinister or objectionable, and are commercially viable.

It must be remembered that this was the technique used to produce the child portrait used as an exemplar for the parent survey. Comments such as “Looks more natural, like the sunshine”, “I like the shadow – it gives a sense of depth and character,” and “Looks more real,” indicate the commercial potential for this technique. The aesthetic aspects of the technique, as shown in Appendix D, suggest that child portraiture using soft shadow can accentuate aesthetic appeal and give a charm lacking in overly-retouches child images without shade or blemish.

**6.4.1 Example of the technique used**

Figure 6.1 is an example of the controlled shadow effect with minimal manipulation, as envisioned by the researcher, and was actually used in the parent survey (see Image A in Figure 4.2, p.50, and reproduced here as Figure 6.1). After a good day’s play, the subject (Timmy) decided to chat with his neighbour friend over the wall on his tyre tower. On his way up, the researcher tracked him in the camera’s view finder and called him. As he stopped to answer the call and look at his “dad”, the shutter was depressed and the image captured. Figure 6.1 shows the image as it was shot. Soft afternoon sunlight caressed the side of the subject’s body; the fill-in flash was of sufficient power to soften/weaken (i.e. control) the shadow caused by the strong side light. Play dirt, scratches, and ruffled hair indicate a natural content feel to the natural pose, while the warm side light creates a source of
playful aesthetic patterns of shadow. This is an interpretation/adaption of Rembrandt’s chiaroscuro, the little triangle of light broken up by natural haphazard obstacles of hair that displays the conceptualised technique: painting with shadow.

Figure 6.1 Timmy and his controlled shadow

6.4.2 The commercial viability of the controlled shadow technique
The responses of parents to a sample of the technique developed suggest that the resulting image was well received and had good commercial potential. Parents who attended the ballet graduation were perceived to be a
mix of a “typical” South African consumer cross-section. The ages represented were approximated as being in the range of mid-twenties to upper fifties (age was not requested on the survey, and grandparents were in attendance). The racial grouping was disparate in composition, and of mixed social economic status. As discussed in Chapter 5, the majority of survey respondents were in favour of the un-retouched photographs inclusive of controlled shadow. This indication bodes well for the study, as it suggests a positive commercial aspect for shadow inclusive photography. This goes some way to respond to a critical point of this project, as to whether this technique has good commercial prospects.

6.5 Recommendations
In this section recommendations are made both for the practice of commercial photography and further research in this area.

6.5.1 Recommendations for the practice of commercial photography
Photographers should:

- consult clients before making assumptions about use of shadow in child portraiture or other genres;

- use techniques such as the one developed in this study to make samples to show clients.

6.5.2 Recommendations for further research
The following recommendations are made for further research into the use of controlled shadow:

- More client surveys are needed to test out the attractiveness of images with soft shadow.

- Further research is needed to find out who removes shadow, at what stage of production this occurs, and what the rationale for this is.

- The connotations of shadow needs to be researched in the context of other cultures (visual culture may be different in different cultural contexts) and other races in terms of skin tones, particularly in areas which have
been liberated from Western colonialism, where “darkness” may be perceived as undesirable.

• Research is needed into the perceived tendency in South Africans to lighten skin colouring (i.e. to see where photographs are lightened).

• Research is also needed into the photography of dark-skinned babies and children to see whether there is a tendency to lighten skin, and the rationale for this.

• Investigation is needed into further techniques for incorporating shadow with pleasing aesthetic effects.

6.6 Personal insights gained by the researcher

In terms of the researcher’s own growth in his “creative craft” in the course of this research, a deeper perspective has been gained, mainly because of the insights developed from a study of visual culture. While his photographic practice still involves viewing prospective “shoots” as a gestalt, there is now a deeper awareness of the various constituents involved in the composition as a whole. This is reminiscent of what Alpers (1984: 27-39) has said about reading the “multiple levels of significance” into images (see Chapter 2). Furthermore, the process of taking portraits of his own child has “personalised” portraiture in ways not previously experienced, and made it a deeply rewarding experience.

What, then of the prevalent photographic practice of “whiting out” imperfections in child photographs? Perhaps like da Vinci, we are in an extensively long period of a shadowless fashion within the genre of mass media “magazine lighting”. Perhaps the concept of shadows having negative connotations is a negligible aspect of this custom. It is possible that we have become aware of our human deficiencies, and therefore demand a fleeting moment of perfection captured on an image, believing for a moment that it is possible to be perfect, albeit in a two-dimensional mirage. However, these issues would require investigation at a deeper level of study. It is hoped that, in this study, a clearer understanding of the connotations of shadow for photographers has been gained, as well as some indicators of where shadow
disappears, whether photographers think of it as an enhancement (or not), and whether they would include it more, if they could. Consumer sampling has also suggested that clients would purchase images with shadow-inclusive imagery. All that is needed is a paradigm shift from “painting with light” to “painting with shadow”.

Furthermore, it has become clear the most profound change has been manifest in my lecture room with the students. Shadow is now discussed and debated in many more genres of photography than just portraiture. There has been a cross-over or amalgamation of shadow in still life, architecture and landscape photography as a necessary addition. My students are being taught to manipulate and control shadow confidently in these various areas of photography, resulting more pictorial elements and greater depth in their images. The photographer-researcher’s interaction with the Photography students has moved to a more perceptive level, as the theoretical component of shadow has morphed into deeper field instruction and enlightenment, introducing a whole new photographic constituent which was previously under-represented. Use of shadow is now being discussed as intently as composition, social impact and other components of the assessment rubric.

In terms of the realm of shadow in the author’s own understanding, there has been an awakening to the presence of shadow and all its representations and manifestations. Possibilities of shadow use and inclusion in further photographic pitches, work and exhibitions are now endless, and I am filled with a new enthusiasm that was not present at the beginning of this study. It is with a source of pride that the author’s collection of books specialising in shadow has grown (Baxandall, Casati, Gombrich, Stoichita, Tanizaki et al), and will continue to grow, as his quest for shadow enlightenment has not yet run its course.

A most encouraging aspect of this study was the response to the photographer’s questionnaire’s open ended questions (the last two). Apart from technical stylistic “high key” choices (little shadow use) in portraiture that
was the hallmark of a few photographers, the respondents positive attitude towards use of shadow was in the majority. The awareness ran quite deep and was personal to a few of the photographers. A mention of “Peter Pan’s” shadow was discussed, as was the pressures of children growing up so fast, that the best way to photograph them was as they were (the author’s method). As a group, photographers were obviously already aware of shadow, but the extent to which a few of them characterised shadow in their responses indicated a deep understanding and awareness, which was sadly absent in their commissioned work. Use of shadow was also indicated as a desire of some of their clients.

Evidence of the photographer’s perception of use and incorporation of shadow in their work has suggested that this infusion can be quite field-specific. Wedding photographers as a group are notably “anti-shadow”, and will “out light” shadow in their shooting technique, as well as remove remaining shadow in their image post-production. They are also prone to higher levels of retouching; this highlights the fantasy effect of the perfect bride, and that all brides on their wedding day will be pictorially perfect.

The majority of the parents of the ballet dancers (purchasing public) also indicated a willingness to purchase magazines that incorporated the author’s shadow-painted alternative if given a choice. As indicated, they had never thought about it because they had never been offered an alternative version, or any other styles other than the standard bland images in vogue today. They indicated initially that they were quite happy with what they were offered, but changed their minds when offered a choice.

What has also become clearer are the idiosyncrasies and views of the purchasing public and the print media as a whole, and their view on shadow. This is definitely a topic for a further study. Then there is also the possibility that shadow might be revisited to allow a possible reprioritisation or repositioning, so that it might take its rightful place as an important pictorial and natural element within portrait photography.
6.7 Concluding thoughts

In conclusion, the author feels that this has been a worthwhile study which was enthusiastically received by his fellow photographers and students alike. It was an endeavour which explored the attitudes of photographers with regard to the use of shadow in child portraiture. It also challenged a few of them to explore their own relationship with shadow, which they gladly shared. A small sample of the purchasing public (parents of young children) indicated that, if given a choice of the present style verses a more natural approach that incorporated shadow, they would purchase the latter. This suggests the potential for commercial viability. And finally Tim has his dad back, and when we are on the boat, running on the beach or at a party, there is no camera following him about, but we have the most beautiful and unique portraits of Tim, hanging on our walls.
Appendix A: Shadow in story, myth and legend

In this section some examples are given of shadow in story, myth, legend and research, providing exemplars of concepts referred to in Chapter 2.

A.1 Shadow in children’s stories

The story of Peter Pan “losing his shadow” (Figure A.1) contains the notion of a free shadow that detaches from its source, and can be explained by themes of “courage and fear, fantasy and reality, happiness and sadness, strength and weakness, past and future” (Elizabeth 2007: 1).

Figure A.1 Peter Pan Peter Pan trying to glue his shadow back on with soap (Peter Pan 2012).

Once Peter’s shadow is re-attached, it does not come back to life until the lights are turned on: the light “awakens” the shadow, revealing that, even though a shadow is dark, it is created by light. Elizabeth explains that it is not uncommon for children to play with their shadows or to imagine that they are
tangible. However, in order to grow up, children must leave this fantasy behind.

In the Disney cartoon rendering of the story, the shadow, like Peter, is “cute” (see Figure A.1). In the modern adaptation of the story by Kitsis and Horowitz (Once upon a time 2013), clearly meant for more adult viewers, Peter Pan is decidedly sinister (a child snatcher and “body thief”), and his shadow has a ghoul-like appearance, presumably echoing this Peter’s villainous character, and is decidedly not “cute”. The effect is achieved by a heavy matt black shadow form, usually appearing at night, with shining white holes for eyes (see Figure A.2). This is a good example of how a different context can completely reverse the connotations of shadow.

![Figure A.2 Peter Pan’s shadow in more sinister aspect (Lewis 2013)](image)

In the next story, the unhappy Peter Schlemihl, spurned because of his poverty, is approached by a strange individual dressed in grey who proposes a deal (see Figure A.3); in exchange for his shadow, Peter will receive a magic purse with the quality that, no matter what happens, it will always be full of gold.
Schlemihl accepts, and is suddenly very wealthy, but also incredibly unhappy. Since he casts no shadow, he has lost his place in the world, and all the people around him are suspicious and repulsed by him. This suggests that “shadow” is a reassuring social feature, a means of checking that people are not dealing with devils or wraiths. The stranger proposes a second exchange. Schlemihl may keep the purse and have his shadow back, but on his death he must give the man in grey his soul. This temptation is resisted, the Devil is driven away and the magic purse is cast into an abyss. Even though Peter saves his soul he has not regained his shadow but becomes the ownSer of the Seven League Boots and is able to travel the world. From that moment on he lives in absolute isolation and only through his passion for botany regains his former tranquillity and happiness (von Chamisso 2007). Here shadow is shown as a normal, reassuring feature of humanity.

The story of Alexander and Bucephalus (Figure A.4) provides an exemplar to children of how to conquer the fear of shadow that still resonates with us today. The stallion Bucephalus was truly wild and nobody was able to tame or ride him.
The young Alexander made a wager with his father that he would be able to tame the beast. On approaching the horse, Alexander noticed that the animal was afraid of his own shadow and turned him towards the sun so that his shadow fell behind him; Alexander was then able to mount the horse and ride it. The importance of this act resulted in an inseparable bond between Alexander and Bucephalus, the horse allowing only Alexander to ride him (Wasson 2011: 1). Alexander rode Bucephalus all the way to India, where the horse died; whereupon Alexander founded a city there and named it “Bucephala” in honour of his beloved steed (de Vries 2003: 5-6). The idea that one may be “afraid of one’s own shadow” is a lesson to children to face up to and overcome imaginary fears: it also shows that we tend to project fearsome qualities upon the unknown, and that careful observation and logic (Alexander was a noted strategist) are needed to understand how things really work.
A.2 Shadow in cartoons
In Morris and Goscinny’s comic strip, *Lucky Luke*, we find the notion that the theme of combat reverses the narcissistic situation (i.e. seeing shadow as an attractive reflection of self) and demonizes the otherness of shadow. Lucky Luke is a cowboy who can draw his gun and fire faster than his shadow (as well as lasso a whirlwind), but Lucky Luke never actually *kills* anyone. In his ideal world, only the foolish kill, while the bullets do no more than innocently convey the superiority of the hero. The cartoon in Figure A.5 illustrates his rapid reactions; before Lucky Luke’s black double has time to draw his gun, the cowboy’s bullets are through him, leaving a small white hole in his heart.

![Figure A.5 Lucky Luke out-drawing his shadow (Morris and Goscinny 1996)](image)

There is reverse symbolism in Luke’s silhouette. Real Luke’s tuft of hair and relaxed pose indicate nonchalance, while, in his shadow, the raised hair and tense stance indicate fear; real Luke’s hat and gun trajectory mark the speed of his action, while his shadow’s hat, and shoulders jerked upwards, mark the shadow self’s surprise (Stoichita 1999: 141-142). In this depiction the shadow is shown as an inferior representation of self, a “hollow man” easily outsmarted and outgunned.
A.3 Shadow in religious texts

An episode in the ancient Indian epic, the *Mahabharata*, tells of the beautiful Princess Damayanti and the heroic prince Nala to whom she is to be married. When it comes to the ceremony however, she finds waiting for her not one, but five “Nalas”. Four Gods have been so captivated by her beauty that they have assumed the shape of her chosen beloved (see Figure A.6).

![Figure A.6 Damayanti and the five Nalas (Goble 1913)](image)

In her distress she utters a prayer, and suddenly perceives that, of the five identical suitors, only one, the real Nala, touches the ground and casts a shadow. The others then reveal themselves as mere phantoms. Thus the mere presence of a shadow distinguished the real from the imitations (Doniger 1999: 133 - 204). This fits in with the idea of a shadowless manifestation of a person as being a phantom, shade or demon, and
therefore to be regarded with suspicion and shunned, as in the tale of Peter Schlemihl above.

But shadow is not necessarily sinister in religious stories, depending on context. In Christian theology shadow has many literal, symbolic and semiotic references. A particular reference from the New Testament Book of Acts reads: “so that they even carried out the sick into the streets and laid them on cots and mats, that as Peter came by at least his shadow might fall on some of them” (Acts 5: 15). Such was the faith and belief in the power of healing that was attributed to Peter from God, that the mere movement of his passing shadow over the sick would heal them. A prayer from David in Psalms: “Keep me as the apple of your eye; hide me in the shadow of your wings,” indicates a refuge and the almighty power of God (Psalm 17: 8).

An interesting metaphor is introduced in Colossians: “These are a shadow of the things to come, but the substance belongs to Christ” (Colossians 2: 17). The word “shadow in this instance represent a prophesy or foretelling of future events. With the early influence of Protestant literalism, the phrase “to foreshadow” or “to shadow forth” appeared in connection with Christian typology which “pointed dimly toward an event in the future that would illuminate its significance retrospectively” (Yelle 2013: 96).

A.4 Shadow in myth and legend
Recalling Ovid’s myth of Narcissus, Stoichita (1999: 31-37) writes an account of what happened when Narcissus bent over the well for a drink to quench his thirst: “While he seeks to slake his thirst another thirst springs up, and while he drinks he is smitten by the sight of the beautiful form he sees.” Stoichita continues how Narcissus observes his own beauty in speechless wonder. An engraving by Antonio Tempesta in 1606 depicts a thirsty Narcissus bent over a well but his reflection is not visible; it would be imagined that his image is reflected on the water surface and broken by ripples. What is visible is a cast shadow of the young man at the edge of the
well which comes to an abrupt stop at the actual spot where there should be an image.

Figure A.7 Narcissus at the well (Tempesta 1606)

Stoichita explains that the image (see Figure A.7) stops at the well because the transmission from wall to rippled water is almost impossible to portray (note that this may be true of engravings, but there are many depictions of Narcissus’s face reflected in the water in paintings). He adds that this engraving illustrates the first part of the account where Narcissus does not know that what he sees is himself. His vain attempts to transform sight into embrace ends in tragedy at the precise moment of ecstasy when the hero at last attains the mirror stage. His image is no longer a shadow, no longer the “other”, but he himself (Stoichita 1999:34). Stoichita reveals that medieval translations and interpretations perpetuated the interaction between “shadow” and “reflected image.” The two expressions were for a long time interchangeable; for example, a poem by Bernard de Ventadour states that Narcissus saw his shadow, fell head over heels in love with it and died of this great passion. According to Stoichita (1999:35) the tragic reality of this tale is a struggle not founded on a relationship of identity, but on a relationship of otherness: in modern terms, Narcissus was jealous of his own shadow, resulting in his death when he realised it was himself.
 According to Sontag (1977), Plato uses a myth to describes the Western theory of knowledge, imagining primitive humans as being imprisoned in a cave since childhood (see Figure A.8), their legs and necks being constrained in such a way that they can only look straight ahead and cannot turn their heads. Behind and above them burns a fire. In front of the prisoners a curtain has been erected, and on this screen projected shadows are displayed of an external reality, the existence of which they do not even suspect. Only by turning around and facing the world of the sun can they gain access to real knowledge. Sontag (1977: 05) draws an analogy between the prisoners in Plato’s cave and our viewing of photographs, suggesting that multitudes of images lead us to construct our own perception of the world and its events in our heads. She points out that photographs are not interpreted in the same way as writings or illustrations, and that behind every photograph, *something* was there in the first place, which gives photographs more credence for being “real”.

Figure A.8 Illustration depicting Plato’s cave (Sontag 1977: 05)
The mythical birth of painting (Figure A.9) is described by Pliny (in Rackham 1952) as arising from the tracing of the human shadow with lines. In this fable a nymph from Corinth traces her lover’s shadow, which has been cast on a wall, the light source coming from Cupid (God of Love) himself. Stoichita (1999) suggests that the significance of the birth of Western artistic representation arising from a negative implies that it was part of an absence/presence theme, that is, the absence of body and presence of its projection (i.e. shadow, Stoichita 1999: 7 and 154). Stoichita adds that, at the time when Pliny was outlining his treatise during the first century AD, the pictorial image was more than the outline of a dark spot, and shadow had been integrated into an area of a complex representation to suggest the third dimension, namely, volume, relief and body.

According to Stoichita (1999), one of Pliny’s contemporaries had asked a question of him as to what the result would have been if no one had done
more than his predecessors. Pliny allegedly replied: “The art of painting would have been restricted to tracing a line round a shadow thrown in the sunlight.”

**A.5 Shadow in scientific accounts**

Closer to modern-day times, shadow also features in more scientific accounts. As in the previous sections, shadow in research is used to explain how we as humans perceive - and understand - the world around us. A study by seven Japanese researchers investigated whether infants aged four to five months, and six to seven months could discriminate the motion trajectories of a ball from the moving shadow it casts using “ball-in-a-box” animations. Two events were planned: firstly for the ability to discriminate between a “depth” display containing a ball and a cast shadow with a diagonal trajectory, and secondly an “up” display containing a ball with a diagonal trajectory and a cast shadow with a horizontal trajectory.

When the results from the experiments are considered, six and seven month-old infants discriminated the motion trajectory of the ball from the moving cast shadows. This developmental emergence of depth perception from a moving cast shadow at six months of age is consistent with that of other pictorial depth cues (Imura et al. 2006: 652).

In yet another study of infants aged between five and seven months by Yonas and Granrud (2006: 154), the infants viewed displays in which cast shadows provided information that two objects were at different distances. The seven month-olds reached preferentially for the apparently nearer object under monocular-viewing conditions but exhibited no reaching preference under binocular-viewing conditions. These results indicate that seven month-olds perceive depth on the basis of cast shadows. The five month-olds did not reach preferentially for the apparently nearer object and, therefore exhibited no evidence of sensitivity to cast shadows as depth information.
Furthermore, an article by Imura and Tomonaga (2003: 253) investigated the ability to perceive depth from shading in three chimpanzee infants aged four to ten months old, using a preferential reaching task commonly used to study pictorial depth perception in human infants. The chimpanzee infants reached significantly more to three-dimensional toys than to pictures of the same objects, and more to the three-dimensional convex shapes than to concave ones. Additionally, two of the three infants reached and looked longer significantly more to the photographic convex than to the concave. Their results suggest that chimpanzees perceive, at least as early as the latter half of the first year of life, pictorial depth defined by shading information.

Studies have thus indicated that chimpanzees as well as human infants perceive visual depth due to shadow inclusion from as early as six to seven months. It seems, then, contradictory to remove shadow from graphic depictions, as it appears to play a significant role in perception.
Appendix B: Ethical clearance and letter of informed consent

**ETHICS STATEMENT:** Please complete and sign the attached Ethics Questionnaire.

All students who intend to complete research projects under the auspices of Durban University of Technology are required to complete this form. This is an abridged version of DUT’s ethics questionnaire, adapted for students conducting research in the Faculty of Arts and Design.

Use the Durban University of Technology's Research Ethics Policy and Guidelines to ensure that ethical issues have been identified and addressed in the most appropriate manner, before finalizing and submitting your research proposal.

Please indicate [by an X as appropriate] which of the following ethical issues could impact on your research. Please type the motivations/further explanations where required in the cell headed COMMENTS. Copying and pasting the appropriate sections from your proposal may not suffice - please ensure that your justification/comments are addressed fully, as issues that are inadequately answered will be returned to the student for further comment.

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
</tr>
</thead>
</table>
| 1. | DECEPTION  
Is deception of any kind to be used? If so provide a motivation for acceptability.  
Comment: | No | X |
| 2. | CONFIDENTIALITY  
Does the data collection process involve access to confidential personal/organizational data (including access to data for purposes other than this particular research project) without prior consent of the subjects?  
Comment: The participant will be required to express his/her personal opinion with regard to the inclusion/exclusion and requirements of shadow in their lighting technique. | No | X | Yes |
<table>
<thead>
<tr>
<th></th>
<th>Will the data be collected and disseminated in a manner that will ensure confidentiality of the data and the identity of the participants? Please explain</th>
<th>No</th>
<th>Yes</th>
<th>X</th>
<th>N/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comment:</td>
<td>The results will be collated in a “percentage” format in relation to specific questions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Will the data obtained be stored and ultimately disposed of in a manner that will ensure the confidentiality of the participants? If “No” please explain. If “yes” how long will the confidential data be retained after the study (and by whom) and how will it be disposed of at the end of the period?</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
<td>N/a</td>
</tr>
<tr>
<td>Comment:</td>
<td>Any data which has been collected will be retained by the candidate, thereafter destroyed at the end of the study.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Will the research involve access to data banks that are subject to privacy legislation? If yes, specify and explain.</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RECRUITMENT</td>
<td>Does respondent recruitment involve any direct personal approach from the researchers to the potential subjects? Refer to the sampling plan in your proposal and copy the relevant sections here.</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td>The candidate will be interviewing photographers in the Durban region.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Are participants linked to the researcher in a particular relationship i.e. employees, colleagues, family, students? If yes specify how.</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td>Some participants are colleagues and ex-students. The model to be photographed will be Timothy, my son.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>If yes to 7, is there any pressure from researchers or others that might influence the potential subjects to enrol? Elaborate.</td>
<td>No</td>
<td>Yes</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td>Photographers that have been approached about possible inclusion have displayed a “keenness” to participate. This is interpreted as a willingness to share personal perceptions of shadow.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does recruitment involve the circulation/publication of an advertisement, circular, letter, etc.? Specify.</td>
<td>Yes</td>
<td>X</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Comment:</td>
<td>A detailed questionnaire will be emailed to a variety of working photographers numbering no fewer than thirty.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Will subjects receive any financial or other benefits as a result of participation? If yes, explain the nature of the reward, and safeguards.</td>
<td>Yes</td>
<td>X</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Comment:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Is the research targeting any particular ethnic or community group? If yes, motivate why it is necessary/acceptable. If you have not consulted a representative of this group, give a reason. In addition explain any consultative processes, identifying participants. Should consultation not take place, give a motivation.</td>
<td>Yes</td>
<td>X</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Comment:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does the research fulfil the criteria for informed consent? [See guidelines]. If yes, no further answer is needed. If no, please specify how and why.</td>
<td>Yes</td>
<td>X</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Comment:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does consent need to be obtained from special and vulnerable groups</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>-----------------------------------------------------------------------------------------------</td>
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<td></td>
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</tr>
<tr>
<td>(see guidelines). If yes, describe the nature of the group and the procedures used to obtain permission.</td>
<td></td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Will a Subject Information Letter be provided and written consent be obtained? If no, explain. If yes, attach copies to proposal. In the case of subjects who are not familiar with English (e.g. it is a second language), explain what arrangements will be made to ensure comprehension of the Subject Information Letter, Informed Consent Form and other questionnaires/documents.</td>
<td>Yes</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Comment: All participants are fluent in English.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Will results of the study be made available to those interested? If no, explain why. If yes, explain how.</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment: There will be a photographic exhibition to present the candidate’s proposed alternative which they may attend. Access to the concluded dissertation will be provided along with verbal/email communication.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>RISKS TO SUBJECTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Will participants be asked to perform any acts or make statements, which might be expected to cause discomfort, compromise them, diminish self-esteem or cause them to experience embarrassment or regret? If yes, explain.</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Might any aspect of your study reasonably be expected to place the participant at risk of criminal or civil liability? If yes, explain.</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Might any aspect of your study reasonably be expected to place the participant at risk of damage to their financial standing or social standing or employability? If yes, explain.</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Comment:</td>
<td></td>
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</tr>
<tr>
<td>Does the research involve any questions, stimuli, tasks, investigations or procedures which may be experienced by participants as stressful, anxiety producing, noxious, aversive or unpleasant during or after the research procedures? If yes, explain.</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BENEFITS</strong></td>
<td></td>
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<tr>
<td>Is this research expected to benefit the subjects directly or indirectly? Explain any such benefits.</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Comment: To a few participants the present shadowless lighting may be the norm and they may possibly be enlightened by an alternative approach being exhibited and proposed. A percentage may feel grateful that their individual approach to lighting technique is being taken seriously by a researcher.</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the researcher expect to obtain any direct or indirect financial or other benefits from conducting the research? If yes, explain.</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPONSORS: INTERESTS AND INDEMNITY</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Will this research be undertaken on the behalf of or at the request of a company, or other commercial entity or any other sponsor? If yes, identify the entity.</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>If yes to 22, will that entity undertake in writing to abide by Durban University of Technology's Research Committees Research Ethics Policy and Guidelines? If yes, do not explain further. If no, explain</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment: n/a</td>
<td></td>
<td></td>
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<td>----------------</td>
<td>----------------</td>
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<td></td>
</tr>
<tr>
<td>24</td>
<td>If yes to 23, will that entity undertake in writing to indemnify the institution and the researchers? If yes, do not explain further. If no, explain.</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment: n/a</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Does the researcher have indemnity cover relating to research activities? If yes, specify. If no, explain why not.</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment: No, just the usual DUT staff provisions, as the research does not involve risk.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Does the researcher have any affiliation with, or financial involvement in, any organization or entity with direct or indirect interests in the subject matter or materials of this research? If yes, specify</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The undersigned declares that the above questions have been answered truthfully and accurately.

**STUDENT NAME: **

**SIGNATURE: **

**DATE: ** 16/11/2010
Letter of informed consent

Dear Participant,

I wish to invite you to participate in a photographic survey which is an integral part of my present field of study, a Master’s degree in Photography at the Durban University of Technology. This study is being undertaken in order to gain knowledge and understanding about the photographer’s perception of shadow, specifically with regard to child models. This survey will take approximately 10 minutes to complete.

**Title of the research study**: Controlled shadow in photography: the development of a technique for child portraiture

**Researcher**: Mark Mindry 0823960006 / 0313735331 / marm@dut.ac.za

**Supervisor**: Professor Brian Pearce 0829022296/0313732070 / brianp@dut.ac.za

**Co-Supervisor**: Professor Dee Pratt 0824229570/0313736003/ deep@dut.ac.za

**Brief introduction and purpose of this study**: The purpose of this study is to gather information from practising photographers in relation to the photographer’s approach to the absence of shadow in photographs of child models, as well as potential clients’ views on this. The researcher will be exploring an alternative style of capture utilizing controlled shadow as an added aesthetic with minimal software manipulation. The practical component of this research will be presented as a public exhibition on completion of this study.

**Confidentiality**: We would like to ensure you that the information you offer in this survey is strictly confidential, and that answers supplied will be utilized as a “percentage”, thus gaining a clearer understanding of the problem. If you as a practicing photographer have a particular point or “feeling” about the above problem you may state this, voluntarily.

If at any time you feel uncomfortable about the survey you may choose to omit the question or pull out at any time.

**Persons to contact in the event of any problems or queries**: Please feel free to contact the researcher or supervisor (contact details above), or the Durban University of Technology’s research ethics administrator at 0313732900.
Kindly proceed with this survey if you have read this letter in its entirety, understood its contents and agree to voluntarily participate in this study. Please answer the questions as completely and honestly as possible. Thank you for your kind assistance.

Mark Mindry NHD. Department of Photography, M.L. Sultan Campus (Ayesha B Building) Centenary Road, Durban University of Technology.

Signature: _______________                    Date:___________
Appendix C: Responses to questionnaire

Below are the responses to the shadow questionnaires sent out via email and hard copies at a large bridal fair to practicing photographers. These photographers are mainly from the greater Durban area, but a few have relocated throughout the country and beyond our borders. The 27 returns of 30 questions are transcribed as accurately as possible in the following vertical order: i) Question ii) Answer options iii) Number of persons in that category iv) Percentage of responses in that category from the total number of respondents.

Question 1)

<table>
<thead>
<tr>
<th>How old are you?</th>
<th>20 - 29</th>
<th>30 - 39</th>
<th>40 - 49</th>
<th>50 +</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>13</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>25.9%</td>
<td>48.1%</td>
<td>14.8%</td>
<td>11.1%</td>
</tr>
</tbody>
</table>

Question 2)

<table>
<thead>
<tr>
<th>What is your gender?</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>44.4%</td>
<td>55.5%</td>
</tr>
</tbody>
</table>

Question 3)

<table>
<thead>
<tr>
<th>What is your highest educational qualification?</th>
<th>Matric</th>
<th>Diploma</th>
<th>N.H. Diploma</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>10</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>37%</td>
<td>29.6%</td>
<td>33.3%</td>
</tr>
</tbody>
</table>
Question 4)

What field of study was this?

<table>
<thead>
<tr>
<th>Building Construction Technology/ Import-Export and Marketing</th>
<th>BComm and IT</th>
<th>Teaching</th>
<th>Physical training and photography</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Diploma and Degree</td>
<td>Degree</td>
<td>Degree</td>
<td>Diploma</td>
</tr>
<tr>
<td>3.7%</td>
<td>3.7%</td>
<td>3.7%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public Relations, Fashion and Photography Makeup</th>
<th>Fine Art</th>
<th>Culinary Arts</th>
<th>Psychology and Economics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Diploma and National Higher Diploma</td>
<td>Degree</td>
<td>Diploma</td>
<td>Diploma and Degree</td>
</tr>
<tr>
<td>3.7%</td>
<td>3.7%</td>
<td>3.7%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Photography</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>1</td>
</tr>
</tbody>
</table>

Diploma, Higher National Diploma and Degree

66.6% 3.7%
Question 5)

<table>
<thead>
<tr>
<th>Did you work in this field before embarking on a photographic career?</th>
<th>Yes</th>
<th>No</th>
<th>Yes of the 18 people who studied Photography</th>
<th>No of the 18 people who studied Photography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>15</td>
<td>12</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>55.5%</td>
<td>44.4%</td>
<td>22.2%</td>
<td>44.4%</td>
<td></td>
</tr>
</tbody>
</table>

Question 6)

<table>
<thead>
<tr>
<th>How long? (To the closest year).</th>
<th>Never</th>
<th>3Y</th>
<th>7Y</th>
<th>8Y</th>
<th>10Y</th>
<th>1Y and 30Y</th>
<th>Changed to photography after studying</th>
<th>Straight from Tech</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3.7%</td>
<td>3.7%</td>
<td>7.4%</td>
<td>3.7%</td>
<td>7.4%</td>
<td>3.7%</td>
<td>3.7%</td>
<td>3.7%</td>
<td></td>
</tr>
</tbody>
</table>

Did not answer

| 17 |
| 62.9% |

Question 7)

<table>
<thead>
<tr>
<th>If you were employed in another field before photography, what were the reasons for the career change?</th>
<th>Answered</th>
<th>Did not answer</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>10</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
Stated answers were as follows:

- Photography is my passion.

- I left the corporate world, where I served as a sales/marketing executive, to follow my passion in photography.

- I wanted to one of three things, a priest, a pilot or a photographer…thank heavens photography won out.

- The passion for photography especially cinema photography. Wanted to follow a passion and didn’t want to do it part time.

- Always owned my own business. When I turned 40 I experienced a life changing event and as a result I re-evaluated my life and decided to do what I feel passionate about and committed to becoming a photographer whilst being a mature artist complemented my work as a photographer.

- Passionate about photograph.

- Passion and like to play with the lighting.

- Passion, need to explore and be in control of own destiny.

- I followed my passion.

- I was employed as a Graphic Designer, but quickly got bored with the idea of sitting behind a computer screen for the rest of my life. At the time I was doing layout for a mag, and thought how nice it must be to out and about taking picture for a career. I decided to make an appointment at Natal Tech with Malcolm, who was the head of the Photography Department at the time. After meeting with Malcolm I knew I had found what I was meant to do, and at age 24 I started to study for my new career.
• I turned 30 and needed a career change, due to the boredom and frustration on my job.

• Was studying Journalism before switching to Photography. Photography was a module of Journalism course and just found I enjoyed it enough to enrol as a full time Photography student.

• I had an office job and couldn’t sit in front of a desk any longer. I needed to be on location meeting new people.

Question 8)

How long have you been taking photographs professionally?

<table>
<thead>
<tr>
<th></th>
<th>0-4 yr</th>
<th>5-9 yr</th>
<th>10-14 yr</th>
<th>15-19 yr</th>
<th>20+ yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>33.3%</td>
<td>18.5%</td>
<td>25.9%</td>
<td>7.4%</td>
<td>14.8%</td>
<td></td>
</tr>
</tbody>
</table>

Question 9)

What percentage of your photographic work would you consider a fair representation of child portraiture from new-born till the age of 5

<table>
<thead>
<tr>
<th></th>
<th>0-19%</th>
<th>20-39%</th>
<th>40-59%</th>
<th>60-79%</th>
<th>80-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>55.5%</td>
<td>22.2%</td>
<td>7.4%</td>
<td>11.1%</td>
<td>3.7%</td>
<td></td>
</tr>
</tbody>
</table>

Question 10) Of the above selection, what percentage would be in the following categories? Studio/indoors. Location outdoors.
Question 11)

As a photographer, do you enjoy or find aesthetically pleasing the inclusion of shadow in an image?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Did not answer</th>
<th>Yes and No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18</td>
<td>4 (w)</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Stated answers were as follows:

- Not always. Depends on the mood (W).
- I like natural photos. If there’s a shadow then there’s a shadow.
- I don’t like harsh shadows (or uneven light on the face).
- Though now that I think about it I don’t really include the shadow that much. I never really thought about it (W).
- Depends on the type of shot required (W Yes and No).
- I like natural photos. If there’s a shadow then there’s a shadow. I don’t like harsh shadows (or uneven light on the face). Though now that I think of it, I don’t really include shadow that much. I never really thought about it.
Question 12)

<table>
<thead>
<tr>
<th>Answered</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>1</td>
</tr>
</tbody>
</table>

Stated answers were as follows:

- I don’t like shadows of people in my images, just looks odd. But if it’s a shadow of nature etc., then it’s acceptable (W).
- Adds mood!! Anyone can bang lights and get 100% perfect exposure. Add shadows in the correct places adds mood (W).
- With and without shadow tells a different story (W).
- The shadow in the image takes away from the bride, and can cause the effect of a double chin or double nose. Shadows can be used in a shot way for effect or in an artistic way when needed (W).
- Yes, if natural light is used and clearly on the desired end result (W).
- If I was shooting on a white background, I would either try eliminating the shadows, or having a soft light one (W).
- Shadow can work for certain images (W).
- Without shadow an image could be of low contrast (flat) and without mood. (C).
- Yes definitely, as 90% of my work is on location documentary work where one is constantly working with only available light at all times of day and night, so correct use of shadows is paramount. My particular clients in the NGO sector don’t allow use of flash/ studio lights in their images, it ruins the aesthetics of the environment im shooting in. Shadows create mood, emotion, effect…
- The shadows “form” the image, by their quality, deepness and contours, To add to the word I used i.e. “quality” We must consider the hardness or
softness of the shadow’s edges, and the ratio between them and the
highlights, the higher the ratio the more dramatic the rendition of the
child’s head shape will be, and of course the lower the shadow to
highlights ratio is, the “softer” the character rendition will be. Modern local
tastes have been strongly influenced by the white-on-white fashion in
child and portrait photography in general, and with the use of what I call
“supermarket lighting” which while being relatively effective is shadow
less, which, in my opinion is weak and somewhat characterless. This is
exacerbated by the fact that in our society, employment of those who
choose and publish photographs has moved in age group toward the
younger and less experienced, and I’m afraid, less knowledgeable people
who tend to follow what their peers regard as “cool”. In addition to that,
these “featureless” images are easier to edit in photo software, and there
is pressure to “idealise” the images. Real individual features are being
averaged out, and we lose something as a result (CP).

- It adds textured character to a persons features and gives depth to ones
  surroundings. Without shadow, an image can appear flat and one
dimensional (M).

- More natural realistic portrayal of a child…anything doctored appears like
  the child has lost its natural born character. And appears unrealistic and
  soulless. Not a great depiction of something so young and naïve (M).

- I do enjoy a slight shadow for form, but my portraits are not moody. My
  albums are bright and fun. There is shadow of course, but it’s not heavy. I
  also like flat lighting on my subjects, and hate any shadows across the
  nose and mouth (M).

- There is an appeal to the depth shadow adds to the image. Old paintings
  that influence modern photography has shadow (C).

- To me personally shadow adds character to the photograph and in certain
  instances sets the correct mood intended by thr photographer. Shade can
  also compliment the features of persons face and body if applied correctly
  (I W).

- Controlled shadow can add depth to and convey mood in an image, (W).
• Shadow is for me is as important as light. It helps convey or portray a moo, often adding to the effect that a location, pose or expression would not achieve on it’s own. The use of shadow is also vital when trying to capture the texture and shape of a subject (C M).

• It creates mood, adds dimension, depicts shape and looks more natural (W M).

• Shadow is an emotive tool. I prefer photographing children in their environment and shadow is a natural part of that environment. Taking away the shadow usually makes the image look like a stock photograph, I am looking for a reflection of the nature of the child (C).

• No. Because it can make the image look dark and unreal to the eye (W).

• Shadow creates shape and form within a 2-dimensional plain, with out shadow or better the contrast between the highlight and shadow a 2-dimensional image appears flat and lifeless. Shadow create depth within an image (C).

• As a child I used to chase my shadow…and then when I started doing family photo shoots, I noticed at some shoots that little children, especially around three would either try jump on theirs, or try and catch it. As my photography is more fine art and creative, as apposed to stiff, structured, formal photography, I love working with shadows (when photographing children or adults (FA).

• Shadow gives depth to an image. My own lighting may be particularly flat but I use shadowplay as a way to tell a story. I often hide parts of the subject in shadow or use them to give more importance to what is in the light (FAF).

• Shadows help to give your subject shape and help to set a mood. either soft shadows giving a creamy/dreamy feel of harsh shadows giving a mysterious mood or adding tension (C).

• Yes for certain photos – shadow can add depth to an image. Location photography, I feel, is best portrayed with shadows included due to the
use on natural light. Light creates Shadow. Studio set ups are best with on shadow to get a “cleaner” look/finish (CP).

- Shadows allow [me to] accentuate shape and create mood (C).

**Note:** The following acronyms are used to specify the respondent’s speciality.

C = commercial, CP = corporate, W = wedding, FA = Fine Art, FAF = Fine Art Fashion.

**Question 13)**

| How would you consider the use of controlled shadow in your child portraiture: an added aesthetic, an enhancement, impartial to shadow, or undesirable? |
|---|---|---|---|---|---|---|
| Added aesthetic | Enhancement | Impartial | Undesirable | Multiple answers | Did not answer |
| 9 | 8 | 6 | 1 | 2 | 1 |
| 33.3% | 29.6% | 22.2% | 3.7 | 7.4% | 3.7% |

Added comment: It depends on how the shadow is controlled.

**Question 14)**

| Would you like to see the use of controlled shadow in child portraiture, or the “status quo” which could be considered as “flat”, “bland”, and “retouched”? |
|---|---|---|
| Shadow inclusion | Flat bland and retouched | Both |
| 24 | 2 | 1 |
| 88.8% | 7.4% | 3.7% |

Added comment: Bit of both
Question 15)
When photographing children, do you consider shadow as part of your lighting technique?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>85.1%</td>
<td>14.8%</td>
</tr>
</tbody>
</table>

Question 16)
Do your clients ever request the inclusion of shadow in their brief?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>26</td>
<td>1</td>
</tr>
<tr>
<td>0%</td>
<td>96.2%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

Question 17)
Do you ever submit images of children with shadow present?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>81.4%</td>
<td>14.8%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

Question 18)
When perusing consumer periodicals, how would you rate the amount of retouching on the cover models, especially children, if any?

<table>
<thead>
<tr>
<th>0-19%</th>
<th>20-39%</th>
<th>40-59%</th>
<th>60-79%</th>
<th>80-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
18.5% | 18.5% | 14.8% | 22.2% | 25.9%

Question 19)
As a photographer, do you agree with the amount of retouching?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>18</td>
<td>2</td>
</tr>
</tbody>
</table>

25.9% | 66.6% | 7.4%

Added comments: 1) impartial
2) sure, with reason

Question 20)
Do you have any comments on retouching?

<table>
<thead>
<tr>
<th>Answered</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>1</td>
</tr>
</tbody>
</table>

Stated answers were as follows:

- Retouching is often necessary and can enhance an image just like light or shadow. However I feel that images are often retouched to ma point that is deceiving to the viewer and raises questions on ethics. Children should be retouched the least in my opinion, or not at all where possible.

- Trained photographers are taught to not only to “see” shadow but also to control it in an aesthetically pleasing manner. Often retouching is performed by those without a photographic knowledge/background. Their “shadow is bad” approach can result in the automatic removal of an image element which often helps to create a more realistic representation of the subject.
• When it comes to children the least amount of retouching the better. Small blemishes and skin marks are easy to remove and should be. You don’t want to mess with character however, so heavy retouching is out as far as I am concerned

• I will retouch a feature ask for by the client, and obvious blemishes that are not permanent, for example pimples or sores, but permanent scars, are sometimes considered part of the person’s character. Sometimes blemished like grass burns are highly valued by young sporty boys and one better not edit out their prized battle scares!

• I do retouch my children too if they need it. Parents see their children as perfect in their eyes. It’s a big competition who has the best photo’s out of their friends. They want their kids to not have any bruises, scratches, sweat, dirt on their faces. I do lighten eyes and teeth, the same as I would an adult. I do not give my clients magazine retouching, as I always want the images to look real and lifelike. So I only enhance natural beauty and qualities.

• There is a fine line between retouching and manipulating an image many inexperienced photographers don’t know the difference.

• Retouching should enhance the natural beauty. Most retouching appears to remove any imperfections which I find offensive. Nobody has a symmetric face or is free of blemishes. I believe it is the ‘flaws’ in a person which add character. I don’t mind a pimple being cloned out, but to change a persons jaw line through retouching is insane.

• I learnt early on in my career that you are first and foremost a photographer your skill and technique in capturing a photo is what makes you the creator. In the advertising consumer world perhaps the lines have become more blurred between photographer and design/graphic artist and it is more readily acceptable to manipulate images post production than when film was used. Its all relative to the specific industry you serve I guess. Advertising strives for perceived perfection, a creation of a supposed reality which is never attainable….it is what it is. Babies I guess do need to look perfect. In documentary its polar opposites, if you
photograph a baby in Ethiopia or Tanzania that is perfect complexion, very round and fleshy you put it on a plane to the nearest hospital because those are the first signs of any number of bacterial infections that make the baby look perfect whilst inside its all bad… so I guess im not the right person to agree to what should or shouldn’t be perceived as reality.

- Too overdone these days…people come across as too plastic and unreal.
- Many of the popular magazine cover are flat and shadow-less, perhaps this is what customer want. While magazine covers are generally shadow-less, portraits that are (illegible word) professionally or of a high quality still contain minimum editing and shadow.
- I don’t mind it, but only if the image is enhanced slightly and still looks as close to the original image as possible. I don’t agree with changing a portrait that it no longer looks like the same person!
- Retouching should be kept to a minimum. Firstly, the excessive use of retouching creates the fake reality which society tries to follow. It also, in many instances, diminished natural shape of the human’s face and hides the desirable character lines.
- Keep it natural!!!!
- I think all photos used in the media or advertising do need to be retouched, but sometimes (a lot of the time in the case of magazine covers) it’s too much. I find the photo-shopping on Guess Kids to be way too much for example. Makes them look like little adults.
- But all professional photos do need retouching as that is just the norm.
- Should be minimal for real true results. However if a more ‘fantasy’ like end result is required further retouching should be considered.
- Retouching is often over used and the people are changed to much!.
- Need to be as natural as possible.
- I would only enhance and sharpen eyes, lighten blemishes and maybe give children rosy cheeks.
- Less is more.
• I think that the should not be re-touching on children.

• As a working photographer in a section of photography that follows trends, I have to do a fair amount of retouching as these styles are what clients are looking for. The advent of digital photography has driven this vastly and has become a necessity of the working photographer who wants to pay the bills.

• Retouching has its place with in the Commercial Photography Industry, there is no doubt about that, as it is a very useful tool. But like most things in life it must be used responsibly. I feel that it is used irresponsibly with in the Magazine world at present, but feel that this trend is starting to change.

• Retouching is an integral part of photography these days. For family shoots, I often have to edit out something on the child’s face…like crumbs or too much sea sand…

• I find with younger children, especially newborns that have a red, blotchy flush, or some skin ailment from their milk, their parents would appreciate it if I removed that and made their skin clear. But it’s never to the point of making the child look “plastic”. It’s a basic skin softening. I am more likely to enhance the blue in the sky, or the grass.

• Retouching is only another tool available to a photographer. I don’t believe “news” images should be retouched but as soon as the commission is commercial or artistic, the photographer should be able to decide how much they want to retouch an image.

• If your aesthetic is to have a Barbie style people in the “perfect” world which you have created (see David La Chapelle or Mario Testino) then you need to retouch a lot while if you prefer a more raw, realistic aesthetic which is what I go for (along with Juergen Teller, Terry Richardson, Helmut Newton) then one generally scales back on the retouching on order to give a more direct connection between the subject and the viewer.

• I think we have all – from a consumer point of view – become very used to seeing retouched images on magazine covers. It’s almost expected.
There have been some recent campaigns in the advertising sector that have gone or chosen to use images on magazine covers or online that haven’t been retouched. Even though it’s a shock to see at first. I believe that if these campaigns continue, we could see more acceptance from consumers regarding the more “real” or “natural” look of people in the spotlight. Women won’t be spending thousands of rands to improve the way they look just find out it’s all Photoshop.

- Retouching is a terrific tool for any photographer. It not only allows for mistakes, but with the correct use of tools a subject can be incredibly enhanced for the better.
- Most normal looking people require a fair amount of retouching.

Question 21)

<table>
<thead>
<tr>
<th>If any aesthetically placed or residual shadow was removed in this process would you consider this, an enhancement, impartial to shadow removal, an unfavourable action/retouching gone too far, or a brief requirement?</th>
</tr>
</thead>
<tbody>
<tr>
<td>enhancement</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>11.1%</td>
</tr>
</tbody>
</table>

Added comments: 1) Only because it’s what the industry demands.
2) Shoot as close as possible.

Question 22)

Who mainly does your post-production, yourself or the production house?

<table>
<thead>
<tr>
<th>Who mainly does your post-production, yourself or the production house?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>74.0%</td>
</tr>
</tbody>
</table>
Question 23)
When you see your work in print and there are no shadows present, where do you think the greatest shadow removal process occurs?

<table>
<thead>
<tr>
<th>Lighting Technique</th>
<th>Personal Post Production</th>
<th>Agency Post Production</th>
<th>Client’s brief/request</th>
<th>Multiple answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>55.5%</td>
<td>14.8%</td>
<td>22.2%</td>
<td>29.6%</td>
<td>22.2%</td>
</tr>
</tbody>
</table>

Added comment: I don’t work for magazines. I have never had this problem.

Question 24)
Do you think that child models are over retouched?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>66.6%</td>
<td>25.9%</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

Added comments: 1) sometimes
  2) I don’t look that often.
  3) Not sure

Question 25)
Do you think that when retouching personally, shadow removal is an integral and automatic part of the process?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>14.8%</td>
<td>85.1%</td>
</tr>
</tbody>
</table>

Added comments: 1) I shoot so I don’t have a lot of shadow
  2) It depends on the brief
**Question 26**

Do you think that when production houses retouch, shadow removal is an integral and automatic part of the process?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>19</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>%</td>
<td>70.3%</td>
<td>22.2%</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

Added comment: *Depends on the brief – there’s a big difference between a portrait of a child (where the parents commission the shoot, in which case the shadow is ok) and a studio-based catalogue shoot where the shadow is usually removed*.

**Question 27**

If any, what percentage would most represent your desire to see less retouching and a more natural “feel” to child portraiture?

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-19%</td>
<td>3</td>
</tr>
<tr>
<td>20-39%</td>
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</tr>
<tr>
<td>40-59%</td>
<td>5</td>
</tr>
<tr>
<td>60-79%</td>
<td>6</td>
</tr>
<tr>
<td>80-100%</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.1%</td>
<td>11.1%</td>
</tr>
<tr>
<td>11.1%</td>
<td>11.1%</td>
</tr>
<tr>
<td>18.5%</td>
<td>18.5%</td>
</tr>
<tr>
<td>22.2%</td>
<td>22.2%</td>
</tr>
<tr>
<td>37.0%</td>
<td>37.0%</td>
</tr>
</tbody>
</table>

**Question 28**

The “cute” factor is often used to sanctify or legitimize shadow removal and strong retouching. What percentage of truth do you find in a statement like this, if any? (Your own percentage please.)

<table>
<thead>
<tr>
<th>Answered</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>6</td>
</tr>
<tr>
<td>77.0%</td>
<td>22.2%</td>
</tr>
</tbody>
</table>
Added comment: 75% true, removing shadow makes children look like dolls. And dolls are “all cute” and “no character”, so yes I believe that removing a percentage of shadow makes children appear cute.

Question 29)

<table>
<thead>
<tr>
<th>Briefly, would you describe what shadow means to you, if anything, in a child portrait context.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answered</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>21</td>
</tr>
</tbody>
</table>

Responses:

- Shadow in my line of work means everything, it's the basis of all my work, it commands every aspect of the mood, shape, context, environment, emotion an image is able to project. I'm forced to sit out in deserts around Africa given 30 min to photograph Tuareg people or Amharic people midday, we don't get the luxury of waiting till dusk to shoot, these people come out the desert to drink at wells then melt back into the sand. So for me I have to be very innovative in how I create portraits of these people when the rules say never shoot a portrait outside middle of the day with no reflector board!!! The odds are stacked against you, yet the beautiful
images still happen and its only because of clever use of shadows upon the face. Without lighting you have no image, so its how we manipulate light to flatten it or contrast its ratios between light and dark that makes the image ultimately! Composition and location are vital too but lighting is king. Shadows don’t offend me, people by very nature have secrets, things that recede into the shadows, its up to us as photographers to judge what is brought forth in light and hidden through shadows. Hence why I said 100% that babies are perceived as angelic and must be shown as perfect.

- Shadow outlines or for lack a better word, “highlights” a persons features, especially when lit from an angle. Children have tons of expression and very emotive responses, having shadow present when photographing them will add character to your subject.

- By shadow you are meaning the shadow that naturally fall under ones eyes, and shadow from lights/sun.

- Shadow means the expression of a child portrait.

- Less shadow the better for softer innocent look.

- Should be minimal for real/true results. However if a more “fantasy” like end result is required further retouching should be considered.

- My thoughts in point 12 hold true for child portraits as well.

- I do prefer controlled shadows, that can be softened whilst shooting. I always try and give myself less editing time for afterwards. I prefer shadows in my portraits and use them to add to the mood of the pic.

- I’m not a fan personally of deep shadows in my work. I’m not a moody photographer because I photograph families, children and maternity. They want bright and cheerful.

- Glamifying a child’s face via lighting and post production techniques. Normally high key photography of children.
• A shadow for me puts the child in a realistic situation. They do not need to be retouched dramatically, certainly no changes to physical appearance. I am coming from a portraiture mind set, a stock photographer may differ.

• I think that shadows on children’s faces are frowned on within advertising or family portraiture. Although when documenting or story telling shadows provide more of a sense of the environment and mood.

• Reality! We don’t live in a world without shadows, so let’s be real.

• Glamourfying a child’s face via lighting and post production techniques. Normally high key photography of children.

• It suggests authenticity. Life has shadows.

• Shadows help to give shape and establish a mood. when shooting children in particular, I find softer shadows are more flattering. harsher shadows seem to take away that feeling of innocence by adding drama not normally associated with youth.

• I feel that with the correct lighting techniques you could produce a result that would satisfy your client. I feel the completely removing of all shadow’s means that, 1. The photography was unable to create or shape the light the way the client wanted, 2. The brief was misunderstood, 3. The client changed their mind after the shoot, 4. The agency changed it before presenting it to client.

• Shadows are an important part of how I photograph children. Peter Pan comes to mind…and I’d never think to edit out a shadow.

• I believe that any technique when used appropriately will enhance an image. I use a very organic approach to creating images. Unless there is a specific brief I will light to whichever standard I fell is necessary to pull out the best side of the subject. Shadows are an integral part of light and when used effectively they will strengthen a portrait I think the tendency is to light children as flat as possible as it’s easier to control that kind of light. Shadows need to be placed perfectly on a face in order to be effective and children notoriously don’t sit still for long periods of time. Therefore I would light flat and use post production to bring back some shape and
form to the subject. Probably this is a case of the easiest technique becoming the aesthetic norm. We are used to seeing pics of children without shadows so, when we see Rembrandt's light on a child, we perhaps feel put off by it.

- Shadow means natural. Children are young and fun and should be captured as that. Taking children out of a natural or comfortable setting means the loss of the "purity" of the image.
Appendix D: Exhibition images

[A copy of this booklet was provided at the Exhibition.]

Introduction

The following images and accompanying commentary serve to clarify the researcher’s photographic developmental process during the course of the project. Apart from the first four images, which were influential in the decision to undertake this endeavour, the remaining eleven images each describe a disparate lighting- or shadow-induced problem that needed to be overcome both technically and aesthetically. The final image, image 16, is what the researcher envisioned as the final outcome of this technique, which has been developed in this research until the desired result can be replicated by other photographers. The desired result is as follows: an image of a child painted with shadow, natural, un-retouched, not posed, yet capturing an alluring, confident and demure portrayal, the very essence of the child, a child at peace with himself and the world.

The resolution of each obstacle which was overcome (apart from the first four and last) is represented by a $500_{mm} \times 700_{mm}$ photographic print on artist’s canvas, and mounted on a solid backing with a frame. Accompanying each resolution are smaller (6 x 8 inch) prints mounted on yellow on either side of the main print. These represent the “almost” made it list, and demonstrate the evolving technique being developed. To these are added a number of randomly mounted images on black board. These demonstrate the obstacles or photographic hurdles to be controlled during the developmental process.

Each mounted exhibition image is displayed in this document with a brief critique.
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This was one of the very first images captured of Timothy. He was eighteen hours old and, after he had left the hospital, his mom was asked to place him in the sun for a few minutes at a time to help cure his slight anaemia. He was placed on his parent’s bed with the rays of sunlight coming in from the window. The light was diffused from the lace curtaining, and soft shadows were created from the burglar guards and widow frames. The researcher quickly grabbed the camera and began shooting without checking camera settings. This proved fortuitous, as the camera was pre-set on a slow shutter speed. This allowed for a blurring of the baby’s right hand (indicating movement) while a steady hand produced sharp features on his face/head. The pop up flash activated and softened both the cast and connected shadow, resulting in a moody backlit image with gentle textures aided by the darkened areas.
Image 1:1 The yellow images

Tim asleep has too ominous a shadow on the left hand side, and an unpleasant cast shadow to the left side of his head. With his head being so dominant, his hands are too tightly cropped. It’s a pleasant, peaceful pose, though, with soft shading on his face.

This image was captured at Tim’s grandparents’ house in the country, after a long drive, with great lighting and soft shadow. On closer inspection, an intruding image of his mom’s face on the right hand side is visible, and his right ear appears “cut” off.
A truly natural photograph of Timothy: he has a great expression, attentive eyes, and an out of focus background. However, the image is too flat, and there is not enough moulding from shadow. The flash was a little strong, and while it eliminated the problem of the sun being overhead, it eliminated the moulding shadows.

As with the previous image, this shows a very captivating pose with a cheeky smile in his yellow swimming pool. Again, the flash was too strong, resulting in a flat and evenly lit image. The pool is also very dominant, but works well in context with the hot day, framing a cool swim and his attentive eyes.
Doggy love is very apparent in this image. However, it was decided that the dog’s tongue in Tim’s mouth might be a bit inappropriate for some viewers. The sharp definition of the dog is evident, but is not present in the child’s face. The angle of view is also a bit high.

Another potential image is shown above, but lacks the punch and impact that image 1 has. The lighting is also very flat. Tight cropping concentrates the viewer on the child, but has a flat shading effect. This image falls short of the required effect, which is one of painting with shadow.
Image 1:2 The black images

This is a typical example of the type of baby/child photography prevalent in the print media today, and an influencing factor for undertaking this study. There is flat bland lighting all around, even though the pose is quite lovable and full of the “cute” factor. There is no shadow or shading anywhere.

Photographing babies outdoors was proving challenging to this first-time dad (also a studio advertising photography specialist!) An adorable image captured in overcast conditions (as above) does not, however, display the required shading effect. Flat lighting is the result here. Care also needs to be taken for the wellbeing of the child: not to subject one so young to the damaging effect of the direct sun for long periods.
Tim was photographed indoors on his bed with window light and weak flash. As the previous results indicate, this is a very tricky situation to overcome. Tim’s “Cyclops” stare says it all: “Go away”. Flat bland lighting is the unacceptable result.

Here Tim is outdoors, lying in the sun under a tree, late on Sunday afternoon. However, more of Tim needs to be in the sunlight to create shading effects. Although Tim is wearing an affectionate off-camera-axis smile, there are no shading effects.
After successfully discovering multiple means to photograph Tim with flat and bland lighting with a considerate amount of success (this project’s failure so far), a new approach was needed. The photographer next gave the model free reign in a herb patch under distant observation. This allowed an undisturbed time for the model to explore new surroundings. Unhindered by constant requests, Tim made himself comfortable in a yet-to-be-filled flower pot, with the afternoon sun gently setting to his left. With camera in hand, the photographer popped out from behind a tree, framed Tim in the viewfinder, called out his name, and, as he turned, the shutter was pressed. Tim’s face is brushed with beautiful soft shadow gently embracing his face, softened by the flash. However, a technique needed to be found for the researcher to be able to control the shadow, mood and location in a constantly repeatable and shareable practice.
Further attempts were carried out with the “ambush” method of image capture, with varying results. As displayed above, Tim has unfortunately lost his left arm and the shadow is a bit too intense. However, a lovely out-of-focus background isolates a somewhat sombre mood.

Similar to image 2, delays in the ambush technique will more often than not elicit a response. At time they may work, but in this instance, not an image for parents only; picturesque nevertheless.
An indoor attempt at Tim with the ambush technique and a chip. This resulted in only spooking Tim (evidenced by eyes a bit rounded and mouth beginning to pucker). The light was too harsh on his head: flat, fill-in flash resulted in an inferior result.

A beautiful out of focus background separates Tim from his surroundings; he is quite brightly side-lit, with an overflow of light on his right cheek. However, the shadow is a bit too strong here, and his tired and grumpy tears don't make for a pleasant image at all.
Window light again warms Tim from the side. There is a lovely stripy shadow across his forehead, but the vertical shadow stripe down his face, as well as the tight crop, distracts the viewer.

The light is too strong on this image. Shading contours are beginning to take shape but a distracting orange object in the background helps spoil the image. The shadow is a bit too dark and Tim’s eyes are sombre and lifeless.
Tim loves his dungarees and spends as much time outdoors as he can. On this particular day he was fascinated with the bark on a tree, and wandered all around the trunk. All the photographer had to do was “wait”. A bird landed behind him on the birdbath, and, as he turned to see what was going on, the shutter was pressed. This produced an encouraging example of gentle mottled light, weak fill-in flash and plenty of defining shadow. A biggish aperture ensures an out-of-focus background, and, combined with balanced cropping, makes for a good example of the desired results. This also makes a good case for natural posing, void of external human interference, showing a child at his most content.
Image 3:1 The yellow images

Windblown hair adds an element of movement, but this effect is spoilt by too strong sunlight. Tim’s right arm is awkwardly cropped, but the darker out-of-focus background helps to increase the separation between the model and his surroundings.

Another example full of possibility, but a big distraction, is the angle of capture, which eliminates Tim’s right arm from view. This is a drawback when one is photographing people from the side without any control from the photographer. The lighting and shading is better on image 3.
Image 3:2 The black images

Parents holding children up in front of them for an image rarely make for good photography as this example illustrates. Tim has one large ear on one side of the face while it is vanishing on the other side. There are also awkward mommy fingers under Tim’s arm. There is soft light and shade, but Tim’s expression is one of discomfort.

There are times when it would seem that all the elements needed for a good image are there, but the results are not what one would desire! The image above is a fine example of that, in spite of the “Rembrandt lighting” on Tim’s face. Tim’s eyes and mouth are dark hollows of doom, and again, he looks uncomfortable.
“Less is more” is used on occasion to indicate a more aesthetic quality in certain situations. On the contrary, in this image less light, less shadow and less natural expression make Tim a dull boy, and the dictum falls flat.

Wispy windblown hair makes for an enticing image. However, this image presents a cheek full of blown-out sunlight, and a face full of attached shadow with a spot of light on Tim’s nose. All the colours are wrong as well. This image too dark and ominous, as the shadow falls on the defining features: eyes, nose and mouth.
Image 4: Tim with his muddied spade

This was Tim's 1st birthday party in his back yard, the photographic results of which in conjunction with the previous three images, show that a random pattern was clearly emerging. The presence of soft controlled shadow and un-retouched images of Tim at play was clearly implying a theme, or style of photography that needed to be further explored. But, as this title suggests an image of “Tim with his muddied spade”, the question is: “Where is the spade?” Initially image yellow 4:1 (see below) was selected to be enlarged, but wherever the photographer went with the enlarged image, folk who saw it wanted to buy it, not commission the photographer to photograph their children. It was the commercial aspect that influenced its inclusion. On print day closer impartial scrutiny revealed that yellow 4:1’s facial shadow wasn’t as pronounced as the image 1 (above), so the images were swopped, but the above was still referred to as “Tim with his muddied spade”.

What is appealing about this image is the angular crop, which is also tight, immersing the viewer in Tim’s world. There are matching colours throughout the image, a wisp of blond hair frames his left eye, the lighting is soft, there are dirt marks on Tim’s face, but, most of all, gentle shadow caresses his face with a tiny catch light in the centre of his eyes, revealing their blue/grey hue.
Image 4:1 The yellow images

The initial image 4 is the most popular one so far (by the public). It shows a captivating image, well framed cropping, good use of a primary coloured spade, relaxed natural pose, good timing of shutter release and, of course, a soft gentle shading over his face and left shoulder.

Another aspect of the “muddied spade” is shown in this image: an extra element on the bottom right diagonal balances this image. Again, Tim is in the herb patch with spring onions appearing out of his left shoulder. This image has a more pronounced lighting feature on his face, along with shadow and play dirt.
Tim is playing in the empty flower pot with the angle of the sun altering his hair colour to that of ginger. Again, there is a fair amount of light and play on Tim’s face but the angle of view is a bit high, his facial expression is not altogether pleasing, and his hand is awkwardly “cut” off.

This image is a strong candidate pictorially for this project. It has all the elements needed. Tight cropping, interesting facial expression that tells a story, lighting and shade are all there, plus the play dirt. However, Tim’s missing ears and right shoulder leaves Tim’s head basically all on its own, and, on longer viewing, one gets a somewhat disturbing feeling about the image.
4:2 The black images

Further exploration of shading resulted in some disappointing results as the above example demonstrates. There are times when the photographer tries too hard and forgets that “the feel” or “the mood” at the time of the shoot is far more important than just placing your model in a ray of light in a somewhat gloomy space, and hopes it works. Everything is wrong here.

An experiment to use Tim’s swimming pool to create a colourful shading effect proved to be quite dire. Any darker, and this image could be a candidate for a “Chucky” sequel.
Weather conditions are vital, as this overcast day provides little in the way of any decent shading of the required calibre. Not even a tasty and messy ice-cream can save the day.

Even though there are days where everything works for the photographer and model, there are bound to be flops. There are elements of a person on either side of Tim, intruding on his image.
The photographer tried on many occasions to capture a sharp image of his model on a swing, using a rather slow shutter speed. This requires the “panning” effect (camera following the movement of the subject) to blur the background and freeze the subject with fill-in flash. This technique also allows for some blurring to indicate movement, and partial freezing of the subject that is critically sharp. This effect proved difficult, as it was near impossible to find a swing at a decent location at the correct angle to the sun for the shading effect. The flash also cast shadows from the ropes onto the model.
Image 5: Timmy playing peek-a-boo

It was at this stage that, after examining the first four images, the photographer took active steps to seek a method to recreate on a continual basis, the camera settings and light fill-in methods for this shading effect. Not only was the shading important, but also location choice, model posing, model positioning and model activity at the time of the shoot. The quest for the “painting with shadow” technique had begun in earnest.

Tim was hiding behind a hedge. The photographer followed him with a zoom lens set at 135 mm. The photographer called out his name, and as he peered out from the hedge, the shutter was released. The dappled shadow caused by the hedge leaves created a wonderful speckled pattern over the right side of Tim’s face and shirt. In a strange coincidence, the camouflage pattern of Tim’s shirt mirrored that of the hedge leaves and the autumn coloured grass; this focused the viewer’s gaze on to Tim’s brightly lit hair and face. The slight angle of the pose also adds intrigue, as Tim is appearing to lean into position for the shot.
Encouraged by the peek-a-boo result above, the researcher attempted to recreate the effect. This result perhaps would have had a chance had Tim worn a different colour shirt, and if his hair had not been “butchered” by a family member.

Sticking with the hedge theme, this result is similar to the previous image. All black shirts were banned from playtime from this time onwards. This particular shrub was “culled” and any attempt to recreate an already great image was now strictly off the agenda. Lesson learnt.
Sticking with the peek-a-boo theme of getting Tim to surprise the photographer from behind a place of hiding, the funfair was the next port of call. The use of a wide angled lens on the Ferris wheel resulted in only expanding or stretching the model, as wide angled lenses tend to do. With the model being so close to the camera, the flash overpowered any shading that might have been there. Still, this was a decently exposed and cropped image, which, however, failed to make the cut.

As in the Ferris wheel image, here Tim stretches out from the corner of a jumping castle, and the wide-angle lens does its alteration. The flash again overpowers all shading, leaving a “fun” image for the photo album but not this study.
Image 5:2 The black images

The photographer attempted multiple variations of the “lets peek out from something”. Lessons learnt were that, if you try too hard for a particular movement, a lot of the natural behaviour and resultant outcomes evaporate very quickly; this leaves a very posed and false photo. Above, Tim has a cheeky smile but it is hidden by his not-so-interested dog, Fudge.

The lighting is great for this image, but the dull tyre and small area of Tim’s face which is present is not enough.
This is a very forced pose. A definite pattern is emerging with the peek-a-boo pose. But, again, too much of the face is hidden by the plane, and the angle of Tim's body is not conducive to the shading effect desired.

Tim's face is not menacing enough to fill the missing face of Nemo's shark. This is probably the worst example of the lot, and the flash flare on the left-hand side of the hole amplifies this.
The desired pattern is emerging, but the "peeking out from a hand-held object across the face" effect is proving not to be very photographic. No matter how good the light or shading is, if you cannot see the model's face there is no point wasting storage space on your memory card. Lesson: do not force the peek, follow the model, and, when the time is right, and the camera is set, a quick once-off call will give you the required response. Be certain of the location as well, as not all objects or locations work.
During the course of the technique development, various aspects of photographic problems had to be overcome. In this case, it was dealing with the hard shadow caused (obviously) by hard light (the latter will be dealt with later). The initial problem was that of the camera, a Canon350D. This camera is a very basic model and the firmware is very limited. This decreases the dynamic range of the available lighting that the processor can handle, so care must be taken when choosing what to photograph in certain lighting conditions. The subject brightness range between highlight and shadow was too great for this camera, but the joy presented by Tim and the smoke of the braai far outweighed any technical limitations of the camera. The flash was put on full power, Tim was turned 90° to the light and this image was captured. It resulted in a pleasing image with only slight highlight burn on his cheek and side, and with his smile and expression so dominant that the white-out has become negligible.
Image 6:1 The yellow images

This example demonstrates how an exceeding amount of overblown highlights can ruin an image in conjunction with other problems. Tim’s chest is totally washed out, and, in addition, Tim has also lost his left arm.

The photographer had some help in the form of smoke in this image. The smoke from the braai acted as a mild mist and softened the glare of the highlight. Although the pose pre-empts the model’s negative reaction to the smoke, it also softens the image somewhat.
Image 6:2 The black images

Without any fill-in, highlight exposure is really simple, so expose for it; but then the shadow areas go really dark, as seen above.

Adding a stronger fill-in flash balances the two (shadow / highlight) fairly well. It would be best to do this balancing first, as smoke and bright light will eventually get to the model, and that is the end of the shoot. Also, in this image there is the ominous shadow of a groping hand lunging towards Tim’s throat.
When using on or off camera flash, resultant shadow will occur if there are obstructions close to the subject, as in the case of a branch against a face. The closer the obstruction, the closer the shadow will be to the obstruction. In this case it would have better to use a reflector, as they give no shadow of their own at all.

This is an example of the case that, the further the obstruction, the further the shadow is away from the obstruction. On camera direct flash also causes very hard shadow from close obstructions, as is demonstrated here.
The further the obstruction is from the subject, the softer the shadow. However, these types of shadows are not very aesthetic, and discretion is needed as to when they are acceptable.

Really good images can be ruined by obvious shadow caused by direct and unsoftened camera flash and obstructions between the camera and the subject.
Image 7: Timmy and his catapult plane / holding objects

Dealing with the peek-a-boo approach mentioned earlier, it was discovered that a facial peek-a-boo from objects close to the face proved somewhat elusive, so a different approach was taken. The photographer adopted a different process to photographing a model with hand-held-objects. Instead of asking Tim to embrace the object close to the face, he was asked to hold it in a position that suited him at the time and to demonstrate affection. Tim was “plane crazy” at the time and a plane was the initial prop. The decision to choose between the available images (this and the following two) was a tricky one, as there were pros and cons to all three of them. This particular image was chosen because of the difficulty faced with the peeking and hand held object approach close to the face. On the enlargement, there is great shadow play on the corner of Tim’s lower left chin, a small and subtle pattern. Just a little extra view of the mouth in the form of a smile also gave credence to the image. The interplay between the eyes and the smile reveals a lot about the mood of the model.
Image 7:1 The yellow images

This and the following Image fell in the category of “definite possibilities”. The photographer was looking for an image that consisted of the model that had an off camera interest. However Tim is a bit too far left in the picture, and the shadow is a bit too dense. Tim’s eyes are also not bright enough.

This is Tim’s “stern” for the camera look. He is beginning to develop a certain tolerance to lenses constantly tracking him. The photographer has those few moments of “ambushing”, then a range of face pulls that follow, then that’s it. This is one of those looks, but it works well with a toy in each hand. The cropping is fine and the shading really works well over the contours of his body and hair.
A very “moody” image (in spite of the bright smile, which is, however, somewhat forced). There is a good contrast of light and shade in this image, with neither being too bright nor too dark. Tim’s cropped haircut is not flattering, and the use of the plastic kitchen jug as a prop was deemed inappropriate. The vertical branch on the left hand side of the picture is also distracting.

The photographer had noticed that Tim was clearly less distracted by the camera when he used both hands during the inspecting/playing phase of playing with a prop. He made his own animations and acted out his imaginative fantasies. This can be noticed in previous images and especially in the following five “black” examples. It was unfortunate that at this particular shoot at Tim’s aunt’s farm the day was overcast; many fine images were captured but, were flat, due to the lack of sunshine.
This is a vivid shot of Tim playing with a wheel-barrow and stones. That happy smile, the angular framing, the warm hues of the farm house and the wheel-barrow have all the makings of a fine location portrait. It is, however, let down by the weather so there are no light and shadow aspects to this image, and these are fundamental to this project.

**Image 7:2 The black images**

A “cheeky” image of Tim holding his dad’s chopper during a gardening break. In actual fact this is an attractive image, except for the axe, with its unacceptable connotations of violence.
Again Tim has involved both his hands, and appears to be having great fun on the abandoned quad bike. Apart from the bike being a bit too dominant in the image, it is a well-balanced image of a boy at play, but it is the flat lighting again that lets this image down.

Sticking with the farming theme and the use of two hands, this image gives a great sense of perspective with Tim’s diminutive frame against the very large tractor tyre. It is a bit busy with three elements at play, but is the lack of shading that renders this image unusable.
This shows Tim and his dad’s first fishing competition at the sailing club. Tim was enjoying this adventure when a friend to his left pulled out a fish. As he turned to see the excitement, the shutter was pressed. Again we have the engagement of two hands, and the back light was effective, as can be seen in the separation it gives Tim’s hair. However, all the attached shadow on his body is flat.

Tim peeking through a slot in a very heavy steel bar, with a stick: this was a very spontaneous image but the flatness of the lighting lets it down. The out-of-focus background separates the subject well from it.
The subtle “C” curve of the model with his head framed by back lit leaves and a lick of white light down his right side, which makes for an expressive and moody image. However, it’s the dreaded plastic kitchen jug again, and the frontal shadow is a bit unexciting.
Tim was getting older, and the photographer was now in the possession of a second camera upgrade (Nikon D7000, the first a Nikon D90). Photographing him became a lot easier as he now had got used to being photographed and also understood the reason for so many photographic shoots; but he also got a chance to take some images of dad, and was learning how to use a camera in the process. This is the tree Tim’s mom and dad were married under. It is in front garden of Tim’s mom’s parents’ house in the countryside (Underberg). It was spring, and the leaves were new and fresh, their shape making small soft slithers of shadows that painted Timothy.

This image was taken with the addition of a Nikon speed light, a SB 900. Using the smallest spot metering the camera had, exposing for the face and reducing the flash power by a third resulted in the image above. Tim’s cute head bend, coupled with a glint is his eye and the shadow only a Willow can give, produced this wonderfully balanced image.
Image 8:1 The yellow images

This image is a bit busy with all the tree branches and Tim’s’ limbs all going in different directions, and the light is a bit strong on Tim’s right side of his face. There is beautiful detail on the bark, though.

On the same tree but with a little tighter crop, the shadow on Tim’s head is too dark and has the feel of a chunk of the top of his head being cut off. The shading works well in that it totally surrounds the smallish ray of light falling on Tim.
Not strictly a tree shot, but Tim is swirling a tree’s leaf in the bird bath. The light and shade are gentle and this a fine image. It is submitted due to a follow up image which portrays a humorous consequence of being alert and following your model vigilantly.

**Image 8:2 The black images**

This is a carry on from the previous image. As Tim was spinning the Oak leaf in the bird bath, the crisp early morning country air tickled his nose and Tim dually responded with a severe sneeze that dad caught midway. There was much laughter from only one of the two people present; needless to say, an unusable image.
The shading was fair in this part of the tree, but because of the steep left turn of the trunk at that point, the bend that Tim made to get comfortable positioned him in an awkward twist. Soft patches of light broke the shade on Tim’s shirt but the awkward pose renders this image unusable.

Finding another spot on the tree with dappled lighting on the moss-covered bark was the easy part in this image. However, Tim had lost interest and the face pulling began; this signalled the end of the shoot.
This is image 8 without any fill in, as the photographer had forgotten to turn the flash on. This is a good indicator of the huge differences fill in makes, in this case flash in the form of a Speedlight on reduced power. The shadow is far too dominant and strong, and the eyes are rendered lifeless.
The photographer captured a number of images taken with Tim making some sort of contact with natural outdoor structure/base. This particular image is by far the most spontaneous in that Tim climbed on the log all on his own accord to get some warmth from the sun one cold morning. The family were visiting a relative on a sugar estate farmhouse. It was winter and inland a bit, so the weather was cool for us Durban folk. We had braaied the night before and there were large tree trunks cut into sections for firewood that were scattered around and used as chairs. Tim pushed one and lay on it in the sun looking very proud of himself. It was another image that was just “gifted” to the photographer, who luckily had his camera on hand. It was early in the morning, winter, and the light was soft and warm; Tim’s jacket matched the colour temperature of the morning light perfectly.
Late one afternoon, Tim put on his new jersey he chose out for himself at a flea market. When his family arrived home, Tim promptly climbed up his jungle gym and smiled broadly. He was asked to hold on as dad hastily acquired his camera and captured this image of a now tired Tim, clinging desperately to the pole before his tired arms give up and the inevitable slide down began. This image unfortunately has busy framing around the model, and the shading is a bit bland.

Little boys (and some men) have a rapport with mud, so when the chance came to attend an obstacle course party (courtesy of the local army brigade), Tim jumped at it. One of the obstacles was a crawl through a pit of mud (sans barbed wire). Everyone loved this part of the course, hence feet and parents in nearly every image. A lovely image of a boy in what they would describe as a perfect environment, but without the desired shading effect.
Image 9:2 The black images

In the mud still and a very determined tongue wag in an effort to finish the course. Shading absent but feet present.

This image had great potential but the fill in flash was too powerful and washed any shading that was available, out. A great muddy image though.
Tim climbing a tree at his Grandparents’ home, Tim’s pale green and white jersey matches the yellow-green of the bark of the tree he is climbing. The morning light provided a great opportunity, but, as Tim is backlit, the frontal shading is absent.

As with mud, a stick also holds a special place in a boy’s heart; at any chance to add another stick to his collection, Tim will not hesitate to “acquire” another length. Unfortunately this image is out of focus, but Tim’s concentration on breaking the stick off a dead tree was really intense. Good mottled shading was available.
Side light that is in mid-afternoon shades the model beautifully. With Tim sitting high on a jungle gym, rear framing palm trees and soft shading on his face, the fill in was again too bright, weakening the effect of the shadow. Tim’s expression is also a bit forced.
Of all the artificial objects that Tim found to sit, lie and play on, this “side lean” on a barnacle-encrusted plastic barrel is by far the most superior of the collection. On arriving at the yacht club we found that the tide was out, so that there was a range of buoys lying motionless on the sand. The photographer asked Tim to “get comfy” on one of them. This was Tim’s response. Tim’s yellow shirt and blue surroundings are complimentary colours that worked well together, the out of focus boats at the yacht club where we sail at is in theme with the barnacled barrel, and Tim’s natural relaxed pose with the setting summer sun presents an excellent canvas for the shading present. The D9000 and Nikon SB 900 speed light were functioning well after careful setup.
Image 10:1 The yellow images

Tim was at another birthday party where they had this huge inflatable water slide. After a few slides, Tim decided to relax and tried to balance on one of the slide’s sides. With setting sun on his right, Tim presented this pose with his long hair falling over his shoulder. Shading was superb but the background is boring and the support ropes crossing the back of Tim’s hair (which is also messy) are distracting. The image is also un-sharp.

After our Sunday sail is complete, and the boat and family are all cleaned up, we walk to the club and photograph. Tim found particular interest in this tender (small row boat used to transfer sailors from ship to shore and vice versa). The sun was low and warm and bathed Tim’s head a golden glow. Unfortunately the sun caused his eyes to “squeegee” up; this, and a too high angle of view spoilt the image’s effect.
After some coaxing the photographer managed to get Tim somewhat upright in the tender but the day’s sail and “fun in the sun” had taken its toll. Between the setting sun and the onslaught of sleep all photography was complete for the day. The colours of Tim’s shirt, the tender and the setting sun made for very complementary lighting which was perfect for a shading session but fatigue won the day.

There are precious few moments when a photographer will encounter a broken down quad bike in a grove of trees on a potato farm. Tim’s bright red shirt complementing the fading blue of the machine make for a perfect shoot; however, without direct sunlight there will be minimal shadow and contrast, and ultimate failure as a polished exhibit for this assignment.
Tim’s family are in the fortunate position of being invited on a regular basis to many parties, which results in some interesting locations. During Tim’s younger years there was always a jungle gym of some sort at the venue. There were problems encountered at these venues, such as the times of day (generally between 10am and 2pm), trying to isolate an individual from his/her friends to photograph, and the rugged appearance attained after half an hour of rampage; and then fatigue sets in. Above is an example of absolute nonchalance from Tim: no interest coming from him.

Another example from a lower angle, showing that gentle shading is possible and even achievable, but the response from the model during a party is generally non-cooperative. It is his playtime, and he probably wants to be left to his own devices.
A fairground is much more relaxing for the models and comes without the demands of a group of “sugared-up” friends. Isolation is much easier to control, and comes in a variety of really vivid colours. However, these colours and the bright sunlight glare often blinds the models, and the angles of view are limited, so are the direction of the rides to the sun. Tim’s eyes are “squeegeed” up again and are too dark.

Similarly, the club’s portable dock, which has interesting textures to its surface, can cause bright reflections in conjunction with the water. These can work in your favour as a reflector because they soften shadows. This image is far too “contrasty” and lacks the shading required.
Lighting is of paramount importance, no matter what props are available; if the light is flat and hard, the shoot will result in frustration and lack lustre imagery. No amount of “tractor factor” can make up for the lack of direct sunlight.

In this attempt less tractor and softer light make for a far better image but Tim had Grandad and his dogs on the top of his head. What would also have made this image better would have been a brighter coloured jacket rather than a dull blue/grey one.
Timmy’s family were at a party at an inland venue once again and not much was going on photographically. Tim’s IGA was running low and so was his energy (see running nose and mouth). Tim was sitting alone on the top of a jungle gym and his dad had his camera pointed at him from a distance. Dad called his name but he didn’t respond, dad shouted louder and still no reply, finally his dad shouted out his name and, as he turned, the shutter was pressed. This mood wasn’t visible at the time of capture, as the camera’s mirror was up; it was only noticed on downloading and viewing. When questioned about this, Tim replied: “Dad, I was not feeling well and wanted to be left alone, that’s why I was sitting on top of the jungle gym, and you kept shouting at me”. It became clear to the photographer that Tim didn’t differentiate between loud calling (attention) and shouting (anger): to him it was one and the same, and his dad didn’t quite understand that at the time, hence the look of fury, raw anger. Tim’s parents have since learnt that, if Tim is pensive, it is best to back off and give him space: he’ll respond when he’s ready. But photographically this is too good an image not to include in this exhibition. No amount of bright-coloured shirts or soft light and silky shading can mask that one-second look, and it is crisply sharp. There was never any intent to capture shadowed emotion, therefore this image and classification was a gift to the photographer, so he chose to pursue it. However, caution was needed as ethics was now a consideration.
Image 11:1 The yellow images

After choosing to include image 11 the photographer re-checked his collection for similar images for the yellow boards. This is a similar look as image 11, but is not directed at dad, but has an included frown. This time the glare was for a fellow partygoer that Tim couldn’t remember. The shadow on Tim’s left side is a bit dominant but it’s the look that’s important, not sharp enough though (camera shake).

This example is thankfully an image of dissatisfaction/grumpiness rather than anger; it is a well-balanced image with great contrasting colours and soft shading. There is nothing dynamic enough about this image which would move it to first place.
There are not too many images of a sad Timmy, as this is a celebration of his life and shadow, and his friends will see these images. There is also the ethical debate that needs to be considered. A Rather non-descript image of a tired and grumpy little boy. Badly framed and lit plus the bottom part of a leg sticking out the top of Tim's head.
Image 12: Timmy’s emotions / irritability

Tim’s expression says it all; yes he is grumpy and irritable and would rather be doing something more fun than that sitting on the club’s dock and posing for pictures. There is a letter “A” above Tim’s head that’s painted on the boat behind Tim that’s part of the boat name. This dad mentioned that the A stood for attitude; it was unfortunate that there was no camera available at the time to capture the result of that statement. For once Tim is sort of clean and the bright colours of the image result in a very striking image. The lighting and shading are superb and the added variety of an angular shot makes for a pleasant example of irritability.
The photographer has grouped tiredness together with irritability as most folk get a bit irritable when tired. Tim was only 11 months when this photo was captured. Tim was sitting on the front lawn of his grandparents’ house in Underberg in the midlands. There is lovely shading across his cheek and the little bundle definitely feels like taking a nap.

This example of tiredness, too much fun, sun and playfulness at a party have taken their toll and a tired Tim needs a rest. This is a classic fatigue indicator of Timothy’s IgA. He’ll be fine for a while then his body just stops and he literally has to sit down to recoup for a while.
This is a very beautiful picture of a solemn and subdued little boy. It could very easily have been enlarged for the exhibition. The lighting and shading is soft, gentle and subtle and the colour mix of purple and blue work very well together. Tim’s pose with the bent azalea branch adds a comforting aspect to his facial expression.

There is a lovely twist to Tim’s mouth that clearly indicates dissatisfaction/nonchalance. There is a slight beam of setting sun on Tim’s cheek, but not enough to create the shading required. If Tim’s eyes were concentrated on the camera the impact of the image would have been that much greater.
Image 12:2 The black images

This quad has provided an array of examples to demonstrate and this look on Tim's face has a clear message “I've had enough of this, time to do something else”. The lighting is also flat so there is no shading, there is also a branch going through Tim's head even though his head is nicely framed by hanging branches on either side of his cheeks.

This example has more of an irritable ambience to it, the light is soft but the shading is not quite sufficient. Tim has a cut on the bridge of his nose and the stick he is playing with adds some element of charm to the image.
This is Tim’s reaction when he stepped into a very muddy part of the garden at his grandparents’ house. It was early in the morning and everyone had just outside following Tim who ran ahead, into the slosh. The grass fronds are a bit busy and Tim’s sandals are distracting with a clear 50/50 mix of light and shade on his cheek.
Occasionally there are days when a photographer experiences photographic nirvana, those days that, no matter what one photographs, many of the images taken are possibilities, thus making a choice so much more difficult. This particular shoot on a tender is one such event. The focus point of Tim’s off camera inspection is an intriguing attention grabber for the viewer. He has a firm hold of the rope during his off-centre escapade. The light and shading is velvety and balances well with the setting sun and the gathering storm clouds.
Image 13:1 The yellow images

This image was the original choice for enlargement; however, a decision had to be made at some point as choices were differing every day. Tim has a very happy smile and “look” about him; however, his gaze is just over the photographer’s shoulder. Had his gaze been focused on the camera and his eyes slightly more open it might have been chosen.

This image was a Facebook favourite and was well “liked”: this is definitely another enlargement contender as this image increases its view-ability with enlargement.
Something has tickled Tim’s fancy and his attempt to mask his laughter/humour is quite infectious. As the above examples show this is a strong candidate for enlargement due to its high humour factor.

A humorous and cheeky shot and a worthy contender for this yellow grading; there are many fine elements in this image but is let down by a messy knot in the foreground and the rope’s shadow on Tim.
A content model and a fine image that lacks the “punch” required for enlargement.

**Image 13:2 The black images**

An example of bad timing, here the model’s hands are obscured by the boat as his hands are busy with something (probably the rope), and his attention follows the action. The light and shade on Tim are warm compared to the storminess of the clouds.
This time Tim’s hands are visible but his gaze is fixed onto something down below, focusing his attention quite solemnly on it.

Tim’s tongue pulling is not as natural as the previous examples; Tim is also sitting down, so his presence is a lot less in the frame compared to when he was standing. The front of the boat and the knot are also busy and distractive.
The side lighting is gentle in this image but Tim’s face is turned $90^0$ away from the camera and so spoils the shot.

A great example of total back lighting, the fill in flash balances the connected shadow on the front of Tim but the result is a flat lit front part of him, while demonstrating the lighting effect back lighting can have on the model’s hair.
An example of side lighting without fill in: the highlighted parts of the image are well exposed, while the shadow areas are underexposed and a bit too dark. This and the pose with the oar are not conducive to portraits.
This was Tim’s first sail on his family’s Halcat (a locally made catamaran), they were out on Midmar damn in the Kwazulu Natal midlands when the wind picked up and the boat really came to life with one hull lifting slowly out of the water as the wind increased. Tim held on for dear life as his family tacked the boat up and down the damn. After a while the boat’s skipper (dad) beached the boat to notice that Tim was still holding on. Dad ran to the tent to fetch the camera in order to try to capture the moment. The wind was blowing and the sun was shining from Tim’s 10 o’clock. The above result presents Tim still clutching the starboard (right) mainstay, his hair blowing in the wind and still smiling from the adrenalin rush of his first hull lift. The sun had added a golden tan to his skin, his hair was all ruffled and the shading complemented the high-angled side light from the summer sun. The orange from the life jacket keeps the viewer’s attention on the boy, while the blue of the rash vest and the green stay protector add balancing colours.
Image 14:1 The yellow images

On a previous boat ride, the sky was overcast and there were friends which presented distracting backgrounds during the photographic shoot. Tim was very young and his long hair was very blond at that stage, which had great potential. However, the weather and fellow passengers ruined the day.

An unusual pose that exposes Tim’s hair at its fullest with a strikingly bright costume and happy smile is spoiled by overcast weather.
This image has the making of an enlargement with the complimentary colours of his shirt and the tender. The side light and fill in are well balanced but the shading is a bit flat.

**Image 14:2 The black images**

A pensive facial pose and relaxed attitude over the gangway guide bars make for a compelling image. Again, overcast weather and intrusive passengers spoil the spot.
Tim is clearly bored; there are limits to keeping the young interested in what must be quite a strange activity to them “posing”, and bad light.

As with image fourteen, interest has waned. The facial expression says it all.
As a photographer should know, focus on the subject at hand and do not be put off by other distractions until the shoot is done. Dad’s new paint job on their Halcat is highlighted rather than the intended subject, Timmy.

An example of prolonging the shoot, a total loss of interest and the onset of annoyance is clearly visible. When a situation presents itself, take the shot, just don’t overdo it.
This is the image that was used for the comparison test at the ballet graduation, together with a clone of it which was retouched. The non-retouched image was the overwhelming favourite when parents were asked which one they preferred. The photographer sees this image as a good exemplar of the non-retouched, natural, and painted-with-shadow technique. Hard afternoon light was adequately exposed and balanced with sufficient fill-in flash on a model who is at harmony with himself and his outdoor activity. The gentle but mischievous juvenile aspect which the model presents is balanced by the use of one of mankind’s worst traits, litter; in this case a few tyres that have been re-purposed as a jungle gym are the background for the photograph. The image of Batman on Tim’s shirt and the dirt on Tim’s face go hand in hand with the rough fantasy play that the model has been engaged in.
Image 15:1 The yellow images

An image from the same shoot but not as dynamic as image 15. Tim’s pose has a “dunce” expression to it and will probably not be a commercial success or a choice from a parent who might have commissioned the photographer.

An attempt with the azaleas, but with Batman this time, was not as effective as the shoot with the tyres, as the pose is not as relaxed and the expression is somewhat tense: pleasant lighting none the less.
This image contains a pose that is washed out by overly strong side light. Tim’s cheek is blown out and the sun has caused him to squint.

**Image 15:2 The black images**

Strong side light without fill-in, as can be seen the highlighted cheek, is correctly exposed, while the shadow areas are totally unexposed, presenting a feeling of doom. This form of lighting is similar to those portrayed in the film adverts discussed in the dissertation and is far too gloomy for child portraiture; perhaps the Addams Family might find this appropriate.
An example of extra exposure with fill-in flashlights: the shadow areas are adequate but this shot completely over-exposes the highlighted areas.

Another attempt at this upside down pose presenting Tim’s hair has ended in failure. This time the image is more tightly cropped but still has the same effect of highlight overexposure.
Hard side light on Tim at 18 hours old through the window, and lave curtaining has blown out on his cheek and has caused Tim to squint.

Early morning light is tricky without sufficient fill-in as the above example indicates. The highlights are slightly overexposed and the shadow areas under exposed; also, the giant flowers distract the viewer from the model.
There is a form of Rembrandt lighting on a baby Timmy above; but his cheek is over exposed and his eyes are dark and squinted, a “Chucky” look indeed.
Image 16: Timmy’s contentment / the journey complete

Image 16 is the final enlargement, and, for the photographer, achieves a sense of accomplishment. His goal to find a method to capture - repeatedly - shadow-inclusive image has largely been achieved. All of the enlarged images have made an appropriate and significant contribution toward this endeavour. However, only one image can complete the quest, and this image is always the one which stands out as the one to be chosen. This is because it is an ideal amalgamation of natural pose, lighting, shading, location, mood and timing. Tim’s demeanour is of absolute tranquillity and contentment. The little fellow as at peace with the world and is confident with that. The lighting is superbly soft, giving a gentle golden glow, which is balanced by the resultant shadow and shading. On enlargement of the image, the discerning viewer can see little playful hooks of shadow beside the bridge of Tim’s nose, on the outer edge of his tear duct, caused by his eyelashes. There are even small patches of shadow on his wrinkled shirt. The out-of-focus pink azalea provides a counterpoint to Tim’s blue shirt. The single pinpoint catch light in Tim’s eyes adds a spark of life and blends well with the speckled highlights in his open mouth, and that little angular head slant is almost heroic in its calm beauty.
Image 16:1 The yellow images

This image is also on the “to enlarge” list, as the combination of yellow, blue and yellow/green make for a well-balanced photo in colour terms. Tim has a confident pose, with his hands relaxed on the fire hydrant, holding a miniature Slinky toy. The side lighting is apparent on the lemon grass behind him. The lighting is soft and the shading is clearly evident. Tim’s slight slant to his left and wry smile is evidence that he feels a lot more confident in front of the camera.

This is another candidate for the enlargement queue. Tim has adapted well to working with the azalea shrub, and here makes good use of one that has fallen onto the ground. The lighting and shading are excellent, and there is the added gift of the light dab under his right eye.
Image 16:2 The black images

This image was initially in the enlargement queue, but on closer inspection it was rejected. This was due to the “Anne Geddes” effect of cuteness. The candidate is attempting to motivate a particular technique and does not want to be influenced by, or borrow ideas from already established photographers. However, this image is quite popular with Tim’s friends’ mothers for obvious reasons, the cuteness that is there.

The final image of the exhibition has taught the photographer a very valuable lesson, as with the Halcat. If your model has an implement of interest and you want to photograph your model with it, focus on your model's eyes first, capture the image, then play with differential focus. Here we have a very tranquil image of Tim in the dying sun, but the focus is placed on the stick. This was a lost opportunity.
Conclusion
One of the greatest insights that the photographer experienced was the way he viewed his son Timothy. After the bitter-sweet/relief sentiments experienced on the completion of this project, Tim was no longer viewed as a model, an object to be photographed with a certain technique, style, or method, but just a little boy who wanted so desperately to be normal. He was the photographer’s son first and foremost, through sickness and in health, and, as he once said: “I'm sick and tired of being sick and tired, why can't I just be normal?” It occurred to his dad that he might have photographed his son differently if Tim had not been the centrepiece of this dissertation. Things, events and places his family experienced with Tim might have been treated in a more carefree manner, rather than as “props” and “locations” for a photo shoot, with the admonition: “Behave and listen, as this shoot is important.”

But Tim quite matter-of-factly exploded this notion: “But, Dad, we would never had sailed the way we did, holidayed at the places we went to, travelled to all those parties and jumped together on the jumping castle. Besides, I have the best photos ever of me to show my children one day!” Out of the mouths of babes!

To conclude, not only did the photographer gain insights into and knowledge of the process of photographing children, and understanding light and, most importantly, shadow. He and his family had a rich and fulfilled first seven years with their only-born, not only photographically, but in an adventure filled with travel, imagery, and, of course, lots of love and togetherness.
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