The Effect of Colour on Audience Response in Theatre Scenic Design

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The Effect of Colour on Audience Response in Scenic Design

In partial fulfilment of the requirements for
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by
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This thesis is presented for the Honours degree in Theatre and Drama Studies at Murdoch University, 2013.

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# The Effect of Colour on Audience Response in Theatre Scenic Design

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Abstract

Designing for the stage involves the consideration of many aesthetic elements, one of the most important being colour. Colour can affect the audience physically, psychologically and emotionally. There are also many cultural, social, historical and religious links with colour that can influence audience response. A scenic designer needs to understand how to use colour effectively in order to effectively evoke appropriate audience responses. In order to address my topic, I have compiled my research into effective colour design into sections to facilitate the reader’s understanding of the ‘why’ and the ‘what’ of colour usage in scenic design. The ‘why’ are the choices we make in our designs, why we do what we do, whilst the ‘what’ is the response we induce from the viewer. Designing purely for aesthetic beauty is insufficient in my view: there is a strong need for an understanding as to why the choices we make may actually be powerful.

The case studies in this thesis involve a collection of scenic designs I have worked upon since 2010. As my understanding of this topic has developed, my designs have also evolved.

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when it came to designing shows that were close to their hearts and I am sincerely thankful for being included in the process.

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Finally I would like to thank my friends and family for being there for me throughout this process. My good friend, Jamie Botting for always being a painting buddy on those lonesome nights in the theatre (the majority of the shows she assisted me with she wasn’t involved in!). My partner Michael Oliver for supporting me during hectic painting and work schedules and always ensuring I have eaten. Thank you to my grandparents, Joan and Rick Bell and Sue and Greg Briggs who have also encouraged me throughout this process. Lastly I would like to thank my parents, Brad and Leanne Bell who would tolerate my verbose and often over-excited descriptions of what I was up to. My mother took me to the theatre from an early age and I vividly remember seeing my first “big” show, The Sound of Music at Burswood Theatre in 1999 (I was 11) and being in awe of the scene changes. I never thought I could work in a field where I could create the same sense of awe and magic. I am grateful to my mother for her calm, and at times, disciplined approach which perhaps above all drove me to complete my thesis.
Introduction

An understanding of colour and the multiple effects it can have upon audience response is integral to the creation of a set that is believable and enhances the theatrical experience as a whole. How colour is applied and used is equally significant to the physical aspects of a set’s design, if not more so. This thesis will examine the three response types that can be elicited through the effective use of colour; physiological, psychological and emotional. This thesis will also include the impact and significance colour can have in terms of social, cultural, historical and religious factors. Finally, this thesis will analyse scenic designs I have created over the last three years which will emphasise how the application of colour can provoke a variety of responses that encourages the audience to respond favourably to the show as intended by the director. The set designer’s role is to create a set that meets the director’s vision and creates a suspension of disbelief. This thesis will examine the many ways in which colour can impact audience response. The analysis of set designs will also demonstrate the application of the theory mentioned in the preceding chapters. My purpose in this thesis is not only to educate others on how to use colour effectively in scenic design to incite specific audience responses but to stress the importance of understanding colour as multifaceted and complex.

Previous to my first production design in 2010, I was interested in illustration and fine art. I studied fine art and Art History whilst studying abroad at American University in Washington D.C. I believe my background in fine art and my knowledge of Art History have equipped me with an understanding of colour that works well with scenic design. I was driven to write this thesis based upon my findings so far in designing for a variety
of shows and how important it was (as I discovered) to use colour effectively. I found through my research into colour theory and design that there was a void in the texts on scenic design and the relationships with colour. Many texts were lacking in detail and basically only outlined methods and techniques that were considered aesthetically pleasing. Despite the usefulness of this information it did not provide me with the answers to the critical question: “Why?” I needed to know why we design as we do, why we use certain colour combinations and why it is important to consider the audience in colour choices. There are many other questions I needed to find the answers for, but it is these three specifically I feel my thesis will primarily address and I will cover as many possible links to the audience responses as can be evoked from purposeful colour choices.

The Physiological Response to Colour

It is important to consider the physiological responses the audience can experience through the use of effective colour design in order to enhance the theatrical experience. This section will examine how colour can affect the viewer physically. In order to understand how to achieve this we need to understand how our body reads and responds to colour. Using this understanding we can then apply colour theory in order to take advantage of these physiological responses.
Understanding the physiology of the human eye and how it interprets colour is also central in forming an understanding of how to use colour effectively. When we see colour, light is refracted through the cornea and into the pupil, which is controlled by the iris. The light is then refracted again through the lens in our eye and the image is flipped and projected upon the retina (at the back of the eye). There are two main types of photoreceptive cells in this part of the eye known as rods and cones. These photoreceptors convert the light into electro-chemical signals that are relayed to the optical nerve and are interpreted by the brain. Rods pick up value
(black, white and grey tones) whilst cones are responsible for colour. Associate Professor, Carl R. Nave from the Georgia State University, HyperPhysics (2013) explores how the eye reads colour and light. Cones are highly sensitive to colour and are concentrated in the “yellow spot” of the eye, known as the macular, specifically the fovea, a small pit that contains the majority of cone cells. The diagram in Figure 1 shows the arrangement of photoreceptors in the back of the eye. There are three types of cone cells that interpret different waves of light (colour). Known as tristimulus values, each cone type picks up a different RGB (red, green, blue) combination. These cones are susceptible to specific wave-lengths of colour, whilst the yellow section of the macular absorbs blue and ultraviolet light. With these three values, the eye is able to see a large variety of colours. This mixing of colours is identical to the additive method of colour mixing. As seen in Figure 3, there is an overlap between wave-lengths which allows our eye to absorb those different hues. Understanding the eye to this depth allows the designer to pin-point specific hues that will activate and stimulate these cones effectively.

Figure 3: Diagram of Wave Lengths and Light Absorption. Bianco, C. 2000. Colour Vision
Understanding the function of the eye assists the designer in also understanding how to mix colours effectively. Additive colour mixing occurs through the application of coloured light. As our eye perceives colour due to the reflection of light, the use of coloured light can assist in creating additional palettes of colour on top of the painted and often static scenic design. The coloured light will reflect off the coloured surfaces, which can change the overall mood and atmosphere of a scene. This ties into Newton’s Colour Theory as to how light is responsible for colour. Sir Isaac Newton (c.1642 - 1727) formulated the laws of colour mixing from discovering that by shining a white light through two prisms, the light would be refracted and broken into spectral hues. The colour wheel that was developed was based on the seven wavelengths within the visual spectrum. This knowledge assists scenic designers in utilising colours.

Figure 4: Encyclopaedia Britannica. 2013. Newton’s Prism Experiment of 1666
that can change under light. One area where the application of colour can be altered noticeably is the stage floor. Feisner, E. 2006. *Colour: How to Use Colour in Art and Design* examines the way colour can be reflected or absorbed on different coloured surfaces. The scenic designer needs to communicate with the lighting designer to ensure that the lights applied to the set resonate with the overall message and the mood the director wishes to convey. Light transfer can occur through reflection, absorption and transmission. A white surface will reflect all light rays, whilst a black surface will absorb them. If a floor is painted and lit with an identical hue that colour will be reflected whilst the other wavelengths will be absorbed (p.8). Light hues allow the designer to create vibrant surfaces that can be perceived differently depending on the amount of light reflected and absorbed and the hue projected. Horung, D (Colour, 2013, p. 18) also emphasises how dramatically theatrical lighting

Figure 5: *Newton's Diatonic Division of Spectral Hues, 1704*

Figure 6: Diagram of surface absorption of light rays, Feisner, E. 2006. *Colour: How to Use Colour in Art and Design, p.8*
can effect colour perception. An example of this is how yellow and green change under a blue light. The yellow appears black due to how the molecules reflect the blue frequency. This allows the designer to emphasise and de-emphasise particular hues depending on the coloured light that is applied. This is useful for the designer as it allows for a versatile canvas that can change and adapt to multiple environments.

Disney's broadway production of *The Lion King* (directed by Julie Taymor) demonstrates how effective colour and texture of the stage floor can create multiple visual effects just through the reflection and absorption of light. In an interview with Sydney Morning Herald (Gill, R, 2003) scenic designer, Richard Hudson stated, "I didn't want to re-create real Africa on stage. I enjoy abstract, taking the essence of something but still retaining the right feeling or colour. A lot of the influences for the set came from African textiles - coarse, woven materials and natural colours." (par.14) Richard Hudson's simplistic but effective use of colour in an abstract form represented rather than presented Africa. This reinforces the impact colour has and how it is an integral force behind in the design process.
After-image is a visual effect that occurs when two colours that are highly saturated are placed in close proximity. The exposure to the colours and tones create a short lasting visual effect where a colour or image remains visible moments after a change in set or lighting.

The way in which a negative afterimage occurs is connected to how the human eye perceives colors and tones. Photoreceptors in the eye are responsible for taking in information, such as light and color, and then that information is transformed into visual images that are understood by the brain. When a particular color is received in excess amounts, such as by staring at a green box for a minute, then the photoreceptors become desensitized to the data being received. Once a person looks away from that image, then the other photoreceptors compensate for the ones that have become desensitized, generating a false image until the photoreceptors in the eye adjusts and the afterimage disappears about a minute later. (Wiesen, G. 2013. What is After Image? par. 4)

This can be effective in small amounts as it can create an invisible colour palette but if performed too often can create visual discomfort from overstimulation. It is also important that the execution of after-image is done through colour, not light as the use of strong light can cause irreversible damage to the retina. I find the concept of after-image interesting,

*Figure 8: Bell, A. 2013. Diagram of positive after-image. Stare at any of the shapes for 10-20 seconds to see the coloured duplicate.*
especially in terms of design, as being able to “implant” an image or colour forcefully upon the viewer could have a profound effect. This is tested often in advertising, however, I do not see why it cannot be incorporated into scenic design in order to leave a memorable imprint. I see this working best through the use of coloured light on a surface (not directly on the viewer) with a strong contrast colour patterned near or by the exposed light. To create the image for the stage, the coloured light could simply change, or all light be eliminated momentarily to allow the image to “hold”. It is also important to consider after-image and how it can have negative effect (overstimulate or distract) on the viewer. It may be necessary to compensate for the effects of after-image. An example where this happens in real life can be seen in a hospital operation room. “After spending hours in surgery visually focused on red blood, surgical staff would experience green flashes on the walls of the operating room, caused by the afterimage phenomenon. Hospitals replaced the white of operating room walls with light green to minimize these afterimages.” (Tofle and Schwarz et al. 2003, p. 46) This demonstrates the need for providing visual balance in stage design, especially if it is undesired to produce after-image effects.

Figure 9: Bell, A. 2013. Diagram of a negative after-image. Stare at the red square for 10-20 seconds then look at the white square or close your eyes to see a green square.
In order to understand how to use colour to evoke a physiological response one needs to understand how our bodies naturally “read” and respond to colour. Our eyes read colour in terms of wave lengths. Every colour has a different wave length and is processed differently depending on the wave length size. One of the longest wavelengths is processed by the brain as the hue red. Red is often used in society to catch attention as it is the first colour the eye will see. Middle wavelength colours are in the yellow-green range and the shortest wavelengths are blue and violet. The hypothalamus in the brain becomes stimulated via electrochemical signals sent from the eyes. Depending on the stimulus, the hypothalamus can release or secrete different hormones, thus forcing an unconscious physiological response to the visual stimuli. Adler, L. in Responding to Color (1999) states, 

Color may bring about a reflex action on the vascular system, but this may be brought about through feelings and emotions. Some studies indicate that red tends to increase perspiration, excite brain waves and raise the blood pressure, pulse rate, and respiration. Noticeable muscular reaction or tension and greater frequency of eye blinks result. Blue tends to have a reverse effect by lowering blood pressure and pulse rate. Brain waves tend to decline and skin response is less. Reactions to orange and yellow are similar to red, but less pronounced. Reactions to violet are similar to blue. (p.2)
Warm colours, such as reds, oranges and yellow can increase heart-rate and create a sense of anxiety and claustrophobia. Cooler hues that are shorter in wavelength have the opposite effect. They slow down respiration and heart-rate which results in a decrease in body temperature and can make the viewer feel physically cold. These physiological effects can be applied to strengthen emotional links to the production as the designer can stimulate the audience to feel a myriad of emotions that can build empathy, understanding and connection to the play.

Colour temperature is important in understanding the physiological response colour induce from the viewer. Sherrin, A. in Design Elements: Colour Fundamentals (2012) explains that colour temperature refers to the measurement, or power of a colour in degrees Kelvin. This measurement indicates the amount of light present in a colour and categorises colours into cool and warm hues. Interestingly, a lower colour temperature will suggest a warmer light (hues such as red, yellow and orange) whilst a higher colour temperature is linked to cooler tones (hues such as green and blue.) This also relates to the wavelengths of each hue – the warmer hues have longer wavelengths than the cooler hues. The saturation (Chroma) of a colour is an important element in colour temperature as colours that are highly saturated appear more vivid (brighter), whilst hues that are dull (greyed) are referred to as desaturated. As mentioned above, the body can physically respond to a colour temperature by becoming hot (increase in stimulus, long wavelengths) or cool (a decrease in stimulus, short wavelengths). Differentiating between warm and cool hues
is also relative to the surrounding colours. Colours close to yellow on the colour wheel will always seem warm when compared to hues further away or opposite. By inverting colours (placing a warm hue next to a cool hue or vice-versa) the designer can very easily create visual focus points.

Colour temperature can additionally create a sense of depth. This can be achieved in two ways. The first method is to place warm and cool hues in close proximity to each other which create strong contrasts that play off one another. The second method can be achieved by using one hue predominantly in a set colour temperature. Warm colours advance whilst cool colours recede. This assists the designer in creating spaces that appear to be smaller or larger than they are in reality. Additionally, depth can be created through the blending of cool colours (blue, violet, and green) in shadow, rather than value (black and grey). Impressionist artist Claude Monet (c. 1840 - 1926)
was well known for using warm and cool colours to show depth. *Figure 13* shows Monet’s original painting, *Impression Sunrise* (1872) and a desaturated copy. Depth is created through the application of cool colours on top of warm hues. The red in this painting seems very bright, however it is the same value as the blue – it is the contrast that makes it appear “bright” and advancing. Using colour to create contrasts and 

*Figure 13: Claude Monet. 1872. Impression, Sunrise (Impression, soleil levant) demonstrating depth created through colour temperature. The desaturated version (right) shows how the sun and its reflection disappear when the chroma is dulled.*

depth makes the image visually appealing and dynamic. Black flattens space as it absorbs all colour, using a complementary colour works more effectively as it is closer to nature. Pierre-Auguste Renoir (c. 1841- 1919), impressionist artist stated, “No shadow is black. It always has a color. Nature knows only colors … white and black are not colors.” (*Artist and Audience*, p. 96)
J.L Morton in *Color Matters* (2013, par.4) explains how the brain “rejects what it cannot organize, what it cannot understand. The visual task requires that we present a logical structure. Colour harmony delivers visual interest and a sense of order.” In order to use colour effectively then, consulting a resource such as a colour wheel can assist in the creation of a colour palette that engages the viewer. *Color Design Workbook: a Real-World Guide to Using Color in Graphic Design* (2006) by Stone, T., Adams, S. and Morioka, N. state that, “color science becomes art when a designer knows how to use colors, in what proportions, and for what purpose, to create a desired response.” (p.42) Harmonious colour palettes are ones that are considered aesthetically pleasing and balanced. They make sense and do not challenge or disturb as they relate to nature and the natural appearance of colour. On the same note – disharmonious palettes can also evoke a purposeful audience response. The viewer can be made to feel uncomfortable due to jarring colour combinations or overuse of highly saturated hues. It is important to understand the purpose of the colour application and the response wished to be elicited. For example, if it is intended to make the viewer feel anxious, uncomfortable and unattached to the set and it’s environment it would make sense to use a colour scheme that is disharmonious (discordant) and not relatable. Intriguingly, incorporating a colour that does not fit into a harmonious scheme also draws attention as it does not fit in its environment. This can also be used to the advantage of the
designer. Discordant colours are colours that are far away from other hues but not far enough to be complementary. These colours can draw attention but they can quickly become visually jarring and tiresome. Harmonious combinations balance as they are found close on the colour wheel. Colour disharmony needs to be applied carefully as otherwise the viewer can become distracted and disengaged from the action in the play. An example of discordant colours can be seen in Figures 15 and 16. The musician M.I.A album cover, *Kala* (2007) incorporates these discordant colours, it gains attention, however due to the overuse of highly saturated colours it is not aesthetically pleasing. It is imperative to apply colour purposefully so that the scenography adds to the director's vision, rather than detracts from it.

An understanding of colour theory can assist scenic designers in creating a set that is able to evoke an audience response that enhances the writer/director's 'vision'. Colour theory is based on how we perceive and understand colour and assists the designer in making conscious colour choices. There are several models of colour theory that can assist a designer such as the colour wheel, the colour cube and the colour pyramid. The colour wheel allows one to see the visual relationships between hues, such as the temperature of colours when split and the relationships between primary, secondary, tertiary and complementary hues depending on which hue is selected. As

*Figure 16: Kala, M.I.A album cover. 2007. Demonstrating overuse of discordant colours.*
mentioned above, colour harmony is achieved when specific colour combinations are applied. There are eight types of colour schemes (Figure 17), which all achieve different visual effects:

- **Achromatic**: No colour, a palette made up solely of black and white value.
- **Monochromatic**: One hue combined with black and white. Monochromatic schemes use variance in light and saturation which results in a soothing visual effect.
- **Analogous**: Two or more adjacent hues are used combined with black and white. The proximity of these hues make it one of the easiest schemes to achieve colour harmony. These schemes are most often seen in nature.
- **Diad**: Any two hues are used but are two steps apart on the colour wheel combined with black and white.
- **Complementary**: Any two opposing hues on the colour wheel combined with black and white. The complementary scheme works best when one colour dominates as this can accent and emphasize important elements within the set. The complementary scheme also has the most contrast and draws maximum attention.
- **Split Complement**: Three hues used where one hue is opposed by two complements combined with black and white. This scheme appears well balanced and has strong colour contrast. Unlike complementary schemes, it does not have the same tension.
- **Triad**: Any three equally-spaced hues on the colour wheel combined with black and white. This scheme can create strong visual contrasts while retaining balance, and colour richness. The triadic scheme does not contrast as vibrantly as the complementary scheme, but it can look more balanced and harmonious.
- Tetrad: Any four equally-spaced hues on the colour wheel combined with black and white. These schemes work best when one colour dominates or all the colours are subdued, otherwise it can seem unbalanced and can lack harmony.

Knowing how to construct and use these schemes equips the designer with a variety of ways to colour that is purposeful, constructive and effective.

The Munsell Colour System was developed in the late 1800s by Albert Henry Munsell to assist artists in communicating and understanding colour effectively. Munsell wanted his system to be alike that to learning music and broke up colours into three main elements: hue (H), value (V) and Chroma (C). Every colour was then given a number based on the HVC and then organised into a three dimensional globe. The circumference of the globe is comprised of the hues red, orange, yellow, green, blue,
indigo and violet. Munsell’s system links to how to human eye perceives colour. It is this system that is used most often applied to commercial colour wheels. Understanding how colour varies due to HVC changes can give the designer an unlimited palette to work with.

Another factor to consider when using colour to evoke a physiological response is the age of the intended audience. Children respond differently to colour than adults and it is important to remember this when designing for the stage. In children’s theatre, highly saturated colours are often used as they are attractive and stimulating for children. This also links to the physiology of the human eye as youth is a factor in terms of interpreting and “seeing” colour. As people mature the ability to perceive colour develops. This is one reason why highly saturated or bright colours appeal to children.

In my preliminary dissertation to this thesis I examined the children’s television show ‘SpongeBob SquarePants’ (Nickelodeon, Viacom) after reading an article published by the University of Virginia (2011). The article The Immediate Impact of Different Types of Television on Young Children’s Executive Function (Lillard, A.S and Peterson, J. 2011) concluded that “Children who watched the fast-paced television cartoon performed significantly worse on the executive function tasks than children in
the other 2 groups when controlling for child attention, age, and television exposure”. (p. 1) I believe that along with the pace of the show, the visual elements of the colour contribute to this cognitive decline. Exposure to highly saturated colours can cause visual fatigue. Visual fatigue occurs when the eye has to continually refocus on different wave-lengths of colour. The decrease in cognition can be caused by the subjects being unable to process the plot or other key elements as the brain is struggling to keep up with the rapid and varied visual refocusing. Figure 19 demonstrates the amount of high intensity colours, which are only emphasized further by the pastel backgrounds. Limiting the amount of bright/saturated hues can prevent visual fatigue from occurring and ensure that the viewer can remain engaged and respond favourably.

Figure 19: Diagram demonstrating highly saturated colours in television show, SpongeBob SquarePants created by Stephen Hillenburg, Nickelodeon, Viacom. 2013.
Physical changes in the eye over time also influence how a viewer perceives colour. Colour matching tests have shown a visual decline in adults over the age of fifty. The Use of the Lanthony New Color Test in Determining the Effects of Aging on Color Vision (Cooper and Ward et al. 1991, pp. 320-321) performed multiple colour tests on a selection of adults. The findings showed that by the age of thirty, colour vision and discrimination begins to decline; after the age of sixty the decline becomes more rapid, and by age ninety the decline is profound. “The reception of short wavelengths (blue) is affected first, followed by middle wavelength hues (green, greenish yellow), and last and least, the long wavelengths (red).” (p.320). The study found that all subjects over the age of fifty had difficulty distinguishing between paler colours, but the majority responded favourably to warm colours of the red wavelength spectrum. This could be due to the lenses in the eye deteriorating or general decline in the brain being capable of processing different wavelengths. This is beneficial for the designer as if the target audience of a production is older, the colour choices need to be relevant and most importantly, visually effective – in that the audience can see the intended colour as close as possible. This means the designer should incorporate more warm colours such as reds, oranges and yellow into their colour schemes to assist in stimulating the viewer.

The scenic designer is capable of affecting the viewer physically but can only achieve this with an understanding of physiology and colour theory. When colour theory is applied effectively and purposely, the designer can induce a variety of physical
responses in the audience. The physical response and perception of colour assists
the designer to elicit psychological and emotional responses from the audience.

The Psychological and Emotional Response to Colour

Colour has the ability to affect the audience psychologically and often emotions are
associated with colour. This section will analyse how the effective use of colour can
elicit a variety of emotional and psychological responses that can assist in heightening
the overall theatrical experience. Colour associations to mood and emotion are used
frequently in our daily language. Idioms such as “feeling blue” or “seeing red”
emphasize this association with colour and the relationship the viewer can have with
colour. As mentioned in the physiological section, our responses to colour link with our
perception of colour.

When one feels “blue” they are typically feeling sadness, similar to “seeing red” being
associated with rage. This ties in with the physiological effect colour has on emotional
response. Colour stimulates our brain to make us physically feel a certain way (tense,
stressed, frustrated etc), however over time, we learn emotional responses to these
sensations and then culturally ‘label’ them. These connotations to colour emotions are
practical as they not only relate to physiological responses but are often commonly
known. However, the emotional and psychological response to colour can vary
between individuals and may not always be exact or controllable. In Color in

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HealthCare Environments (Tofle, R., Schwarz, B., Yoon, S. and Max-Royale, A. 2003.) examines how patients had varied emotional responses when exposed to the same hue.

Psychological reactions swung from sympathy and antipathy. One group of patients found the red room “beautiful,” “light,” “sunny,” others found it too “glaring,” “arousing,” “exciting.” Calmer emotions were generally noticed in the blue room; some patients found it “pleasant” “calming,” “restful.” Especially obvious were repeated remarks: “It’s easier to concentrate, think, meditate.” Other patients found the blue too “cool,” “depressing,” “sad.” …

…the psychological reactions to a major hue vary between positive associations and impressions and negative ones (p.16)

Table 1 (pp.40-41) demonstrates the multiple ways colour can be interpreted emotionally and should be considered when designing for specific emotional responses. It is arguable that there is no exact one-to-one emotion/colour response, however common responses are often connected with cultural heritage and understanding the most common responses gives the scenic designer the ability to stimulate the audience in a constructive manner.

“Colors, like features, follow the changes of the emotions.” (Quotes about Colour, p.3)

Pablo Picasso (c.1881-1973). In society there are certain places that incorporate colour due to the psychological and emotional effect it can have on the viewer. Baker-Miller-Pink (also known as “drunk tank pink”) is a colour used in gaol cells to calm violent inmates. Dr. Alexander Schauss, Ph.D., director of the American Institute for Biosocial Research in The Physiological Effect of Color on the Suppression of Human
Aggression found in his studies of baker-miller pink that, "Even if a person tries to be angry or aggressive in the presence of pink, he can't. The heart muscles can't race fast enough. It's a tranquilizing color that saps your energy. Even the color-blind are tranquilized by pink rooms." (Color Matters, 2012. par. 2-3) In other areas of society, colour is incorporated to have stimulating and positive psychological effects. In healthcare, colour is used to affect patients and assist with healing. “In operating rooms, sheets and gowns are a pale blue, which calms and soothes people. Some rehabilitative hospitals use different shades of red, orange and/or yellow to energize depressed patients. Techniques such as projecting specific colours onto walls, painting waiting rooms calming colours or using colours on floors to speed up the sensation of moving faster are other techniques used in healing institutions.” (Gopal, L. 2012. The Ultimate Quick Reference Guide To The Psychology Of Colour, par. 136) These two examples highlight the importance colour has in terms of affecting the mood and emotions of a viewer. As a set designer, understanding how to use colours effectively can assist in creating a more powerful and effective set design.
Mark Rothko (1903-1970) is an American artist famous for creating paintings that were labelled ‘abstract expressionist’. Rothko was part of a group (Clyfford Still (c.1948-1968) and Barnett Newman (c.1905-1970)) who founded the term known as ‘Colour Field Painting’. Colour Field Painting is defined as:

“…abstract painting characterized by large expanses of barely modulated colour, with no strong contrasts of tone or obvious focus of attention… colour appears almost to have overwhelmed elements of shape and drawing, thereby acquiring a specific pictorial autonomy, in which the works’ mesmerizing effects, and the senses of scale which they impart, are attributable entirely to chromatic contrasts, rather than to strictly formal qualities.” (Brigstoke, H. 2003, in The Oxford Companion to Western Art)

Rothko created works that were known as ‘multiforms’ and were selected blocks of colour blended carefully along with a calculated use of texture and often large-scale in size. These paintings held the intention of ‘capturing’ the viewer in a “raw, emotional and abstract way” by having the viewer become overwhelmed with the colours, size and textures.
I'm interested only in expressing basic human emotions — tragedy, ecstasy, doom and so on - and the fact that a lot of people break down and cry when confronted with my pictures show that I communicate those basic human emotions. (Rothko in López-Remiro, 2006, p. 119)

Rothko’s work is especially interesting from a design perspective as it immerses the viewer, the audience, into a space where they will be directly affected emotionally by colour. Kelsey, A. in The Color of Transcendence (2003) explains that “Pure color, for the color-field artists, was thought to “express invisible states of mind.” Rothko’s desire was to create portals, through the use of color and canvas, into the vast recess of the human psyche. Akin to altar-places, his canvasses are meant to force the viewer into deep contemplation, to achieve what he termed “spiritual communion.”” (p.4) Through this ‘communion’, the viewer is neurologically affected to emotionally respond.¹ Rothko’s paintings use strong contrasts and assimilation to influence the viewer. The use of colour in this manner creates movement and atmosphere, as seen in cool colours receding and warm colours advancing. The contrasts of complementary

¹ Mroczko-Wąsowicz, A. and Werning, M. 2012 in Synesthesia, Sensory-Motor Contingency, and Semantic Emulation: How Swimming Style-Color Synesthesia Challenges the Traditional View of Synesthesia explains how an involuntary response to a colour stimulus is in some ways alike to a mirror-sensory synaesthesia. Mirror-sensory synaesthesia is the phenomena of experiencing a stimulus that “mirrors” the emotions present or sought originally. This ties into the theory that colour can stimulate a viewer unconsciously and elicit specific responses.
colours and the juxtaposition of hues is certainly a tool useful for the scenic designer. Considering the profound effect colour can have on a viewer emotionally and psychologically, using elements and techniques to be found in Rothko’s work can further enhance the overall aesthetic experience.

Although many emotional and psychological responses elicited from the audience are arguably contextual, psychologist Doctor Max Lüscher (1929 – present) designed a colour test (The Lüscher Color test, 1947) arguing that sensory observations of colour are objective and universal. Lüscher separates four colours into the “pillars of human psychology”; red, green, blue and yellow. Red is the colour of passion, thrill and ambition, green relates to wants leading to happiness, blue is the colour of bonding and the relationship with one’s ‘inner being’ and yellow is the colour of growth and progress. Along with these colour pillars, Lüscher formed three polar pairings of human characteristics. It is through these characteristics and the relationships with colour that he argues that our understanding of colour is objective and uncontrollable. The six characteristics are: receptive and directive, constant and variable, and integrative and separative. Receptive characteristics are linked to violet, whilst directive are linked to red. Receptive characteristics found in people are those that accept external determination, are happy to receive, are tolerant and are often found to be female. Therefore directive characteristics are often seen as masculine, in some ways stubborn, often giving and quite dogmatic. Constant characteristic preferences are linked to the colours green-blue and represent order, tradition, a respect for past, heritage and rules, whilst variable characteristics (yellow) oppose these and link to chaos, improvisation and an interest in the future and modernity. The final polar pairing, integrative and separative characteristics relate to unity, quality, love and
integration (integrative) and plurality, quantity, separation, hate and alienation (separative) and are linked to red and blue respectfully. Through this test it is believed that all people are subject to one characterisation from each pairing. The results of their Lüscher Colour Test are meant to reflect their innermost needs and psychological longings. A study conducted by Rahn, R.C in Lüscher Colour Theory: Civilians and Criminals (1976, pp. 145–155.) compared male criminals’ and citizens’ Lüscher Colour Test results to see if there were similarities and found that the differing behavioural groups responded in an expected manner. The study noted that the Autonomic Nervous System (ANS) responded differently for criminals as they had a larger need deprivation and preferred dark colours. The incarcerated men had very different responses to colour and rejected primary colours. The Lüscher Colour Test in this case is shown to highlight behavioural characteristics and trends via the preferential colour choices. This is useful to a designer as we can manipulate our colour choices to link in psychologically to the viewer’s needs and desires. As scenic designers we can also emphasize characterisation through the usage of preferential colour.

Another aspect of psychological response to colour is the ability to believe what is being seen is real. Winslow, C. (2010) in The Handbook of Techniques for Theatre Designers looks at how a designer can create textures that can have a trompe l’oeil effect. Trompe l’oeil translates to ‘fool the eye’ and has been used since antiquity. Assisting the audience in the suspension of disbelief is often essential in keeping the audience within the action of the play. Winslow states,

> Theatre is possibly the only art form firmly rooted in fakery…In the most realistic form of staging one could possibly imagine, the audience never really
believes it [they] are in Verona. However, if everyone does his or her job well, even in the most stylised or minimalist production, disbelief is suspended for at least the length of the play, and we become involved, concerned, and often deeply moved by the characters and situations presented to us on stage… Put crudely, as far as theatre is concerned, the better you can fake it, the better you are at your job. (p.85)

Colour is integral in terms of creating a *trompe l'oeil* effect that has realistic and believable depth.

A standard rule in the application of color for *trompe l’oeil* is warm highlight, cool shadows, or cool highlight, warm shadows. If you play the compliments of the colors off of one another, the results will be more interesting as well as more apparent. The use of complementary colors accentuates the modeling of the chiaroscuro by creating the impression of cooler-hued surfaces receding into the distance from their warmer counterparts. In compositions where the quality of light is cool—moonlight, for instance—darker, slightly warmer shadows will recede from the lighter, more chromatic cool highlights. In general, shades, lowlights, and cast shadows should not be more chromatic than the local color or these areas will fail recede or push back. Cast shadow is most effective if it is a deeper value and the complement of the color of light illuminating the scene. (Crabtree and Beudert. 2012. *Scenic Art for the Theatre*, p.318)

Successful creation of the *trompe l’oeil* effect occurs through the use of colour as outlined above by Crabtree and Beudert. This can psychologically lead the viewer into
accepting the set as relatable to the performance on stage and not something static or disconnected.

The psychological and emotional connections to colour are infinite. It is the responsibility of the set designer to study and understand how to apply colour to affect audience response. It is necessary to remember that colour can be interpreted differently by individuals and the emotional responses are not always consistent or reliable. Using colour and making careful choices ensures an impact upon the audience, even though it may be varied.

The Cultural, Historical, Religious, Social and Symbolic Responses to Colour

According to author J.L Morton (2011) in Colour Matters, we all perceive colour differently due to our own social and cultural conditioning. There are two main communicative properties of colour; natural associations and psychological (cultural) associations. Natural associations to colour are familiar and universal as how we perceive colour in the world we connect and label to particular hues. For example, “sky blue” immediately is recognisable for most individuals. Other associations to colour can be linked to social, cultural and religious evoked through psychological and physiological responses. It is essential to understand the context of the intended audience and the significance colour may have to them in terms of these aforementioned factors.
Stereotypes of “good” and “evil” can be perceived in terms of colour application and is seen often in film, illustration and can be presented through scenic stage design. These colour stereotypes can be linked to colour symbolism and can change over time. Figure 23 demonstrates the dominant colours found in children’s and popular films for ‘good’ and ‘bad’ characters and their

Figure 24: Diagram showing correlation between “good” and “bad” character related colours. Bell, A. 2011. Left to right (top and bottom): The Little Mermaid (Disney, 1989), Megamind (Dreamworks Animation, 2010), SpiderMan (Marvel Comic Franchise)

Figure 23: Left to right: Raphael, 1506, Saint George and the Dragon, Italian Renaissance. Alessandro Allori 1570-2. Pearl Fishers, Mannerism. Rubens, 1609. Samson and Delila, Baroque.
surrounding environments. Throughout history “good” has been represented through light and bright colours, whilst “bad” is typically dark and drab. The heroes often appear in natural hues that are light in value and warm, whilst villains appear in often desaturated, dark and cool colours. The good and evil, light and dark stereotype has

appeared throughout history. Typically, light represents goodness, illumination, knowledge, innocence and life whilst darkness represents fear, evil, grief and loss. The colours dominate and represent these values of good and bad when commenting on character. Artworks from the Italian Renaissance to the works of Modern artists demonstrate a definite trend in representing positive and negative (good and bad). As seen in the majority of artworks in Figures 24 and 25 the women are portrayed very white and light in terms of skin tones. This is a striking and noticeable trend as the ‘heroines’ within these images are depicted in a similar, delicate manner. The white horse in Saint George and the Dragon (1506) is a wonderful contrast to the darkness of the dragon – like a beacon of light defeating the dark and evil beast. This is repeated three-hundred and thirteen years later by neoclassic artist Ingres. The figure in Francisco Goya’s painting also emulates this ideal of “goodness” through light. The whiteness of his shirt in contrast to the light hues of his pants and clothing make him a literal ‘light’ within the painting. Finally, I included the painting of Picasso’s Guernica to emphasise that despite the lack of hue and a totally achromatic palette there is still a prominent and obvious juxtaposition between light and dark. Picasso felt the need to go to great lengths, both formally and chromatically, to maintain his control over such an emotional subject.² The lines and highlights, radiate harmony and balance while the details betray the horrors suffered at Guernica. Referring to art history can strengthen not only symbolic and historical links but can be used by the designer to reference character traits and create environments that relate to the action found upon the stage. The use of “light” and “dark” allows the designer to reference these links in a way that is recognisable by the audience.

² Guernica was bombed on the 26th of April, 1937 during the height of the Spanish civil war. The bombings resulted in many deaths and Picasso was commissioned by the government to create the mural as a reminder of the tragedies of war.
Often emotions are associated with colour and this can be argued in some ways as a social or cultural construct. Depending on cultural orientation and values, one’s responses to specific colours can be different to someone from a differing background. It is important as a scenic designer to consider the context of the audience in order to ensure that the usage of colour relates to relevant symbolic and cultural links. A simple example of this is the use of white to impact audience response. The connotations with the colour white are very different in Western and Eastern cultures. For Eastern cultures, white symbolises death, mourning and is often seen at funerals. In the Western world, white is used at weddings and baptisms to symbolise ideals such as purity, innocence and peace. As seen in the Table 1, there can be many symbolic interpretations of colour and therefore it is fundamental to consider the audience of a specific production as far as possible in order to create a set that is meaningful and interpretable.

<table>
<thead>
<tr>
<th>Colour</th>
<th>Emotive and Cultural Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Red</strong> – Creativity, warmth, excitement, energy, passion, desire, power, love, strength, competition, shame, fire, blood, bloodshed, danger, stop, speed, war, aggression. China – used in cultural ceremonies from funerals to weddings. When combined with white, it is associated with joy in Eastern cultures.</td>
<td></td>
</tr>
<tr>
<td><strong>Orange</strong> – Energy, balance, warmth, enthusiasm, vibrant, expansive, flamboyant, attention-seeking. Ireland – political and religious significance.</td>
<td></td>
</tr>
<tr>
<td><strong>Yellow</strong> – Joy, happiness, optimism, idealism, imagination, dishonesty, cowardice, betrayal, jealousy, covetousness, deceit, illness, hazardous. India – significant to Hindu religion.</td>
<td></td>
</tr>
<tr>
<td><strong>Green</strong> - Fertility, healing, food and ecology, nature, environment, healthy good luck, renewal, youth, vigour, spring, generosity, fertility, envy, jealousy, inexperience, misfortune, reptiles, insects and even bodily functions. China – infidelity. Ireland – religion. Western cultures – safety</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>Emotive and Cultural Associations</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Blue</strong></td>
<td>Positive, peace, tranquillity, stability, harmony, unity, trust, confidence, conservatism, security, cleanliness, order, loyalty, sky, water, cold, technology, depression, appetite suppressant. Middle East – protection.</td>
</tr>
<tr>
<td><strong>Violet/purple</strong></td>
<td>Royalty, spirituality, nobility, pomp and ceremony, mysterious, transformation, wisdom, enlightenment, cruelty, arrogance. Western culture - royalty</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td>Reverence, purity, simplicity, cleanliness, peace, humility, precision, innocence, youth, birth, winter, snow, cold, good, sterility, marriage, (western cultures), death (eastern cultures), clinical and sterile. Japan – mourning</td>
</tr>
<tr>
<td><strong>Black</strong></td>
<td>Power, sexuality, sophistication, formality, elegance, wealth, mystery, depth, style, underground, sadness, remorse, anger, fear, evil, anonymity, unhappiness, death (western cultures). Western culture – death</td>
</tr>
</tbody>
</table>

Table 1: The Emotive and Cultural Associations with Colour according to the Versa website on colour symbolism. 2008

The symbolic properties of colour as indicated above can have a profound effect on audience response. Colour has representational factors that can emphasize, strengthen and support the message or action within a play. Cultural associations with colour are also important to consider when designing for the stage. The context of the audience impacts these colour choices as well-conceived colour palettes can enhance the meaning and effect of the audience’s response to the play. An example of this is shown in Figure 26.

Figure 26: Eugène Delacroix - *Liberty Leading the People*, 1830.
could be the consideration of the colour of the currency, or national/patriotic colours of the intended audience to create links to familiar and relatable environments and images. These sort of colour considerations can feed the audience additional information and context about the stage performance. An example of this can be seen in the production of Les Miserables and the work of image and scenic designer Matt Kinley. The play of patriotic French colours such as red white and blue flow throughout the scenes, not just through the scenic designs but also through costuming. The hues on set are enhanced further by the use of coloured light. The stylistic choices by Kinley align with the painting by Eugène Delacroix - Liberty Leading the People, 1830. This painting commemorates the French Revolution of 1830 and naturally ties in with the time period of Les Miserables. There are obvious similarities in the colour choices. Kinley explained that a lot of the scenic design consisted of the use of props and projection to create a sense of atmosphere and build upon mood. He used the original paintings and artwork by author Victor Hugo in these projections. This not only added reference at a cultural level (due to the colour choices) but related to the historical attributes and messages within the play. This is exactly what a designer hopes to achieve in their process – the enhancement of the director's vision.
There are many religious connotations linked to colour which can assist in creating a scenic design that can be read, understood and have an impact upon the audience. Historically, the colour blue has been linked with the Virgin Mary since the Byzantine period. Genuine ultramarine blue is from the semi-precious stone lapis lazuli and was very expensive as it was not a common colour pigment found in Europe and had to be imported from modern day Afghanistan. It was a colour reserved for the Virgin Mary and Christ as it was believed that by creating beautiful works of art, the artist/patron could show devotion to God and reserve a place in Heaven. Many artists from this period and throughout the Renaissance would be commissioned and specifically required to include rare colours and pigments such as ultramarine blue, gold and vermillion red. Enthroned Madonna and Child (13th Century, unknown artist) demonstrates the extravagance of religious artworks as seen in the use of blue and gold. Another example of religious devotion through the colour blue is seen in the Scrovegni Chapel (Arena Chapel), Padua, Italy, where frescoes were painted by artist Giotto di Bondone (c. 1267-1337). The chapel was completed in 1305 for wealthy Italian banker Enrico Scrovegni and dedicated to the Virgin Mary of Charity. The story of the Scrovegni Chapel and the Giotto frescoes are important in understanding the importance and significance of colour as it demonstrates the firm belief people had
during this period in the symbolism and messages found behind colour. It is thought that Enrico originally commissioned the chapel and its artworks to save the soul of his belated father, Reginaldo Scrovegni, who, like Enrico, dealt with money. Within the church, usury was considered a mortal sin and in Canto XVII of Dante’s Inferno Reignaldo was identified (due to the family badge of a sow which he had stamped onto his money purses) as being in the seventh level of Hell, seated upon burning sand.

...Then as the current of my look proceeded I saw another, red as blood, display a goose whiter than butter. And one, who had his little white bag marked with an azure and pregnant sow. (The Inferno, Canto XVII, p.48)

Enrico believed that he inherited not only his father’s fortune, but his fate as well.

Among the factors that relate specifically to Enrico Scrovegni are a possible desire to expiate his father’s usury and at the same time to make his own expenditure conspicuous; an ambition for status combined with a fear of damnation; a desire, on the one hand, to be regarded as an ascetic devoted to the cult of the Virgin, and, on the other, to secure for himself a fitting property to serve as his personal monument. (Norman, D. 1995. Siena, Florence, and Padua: Art, Society and Religion 1280-1400, Volume II: Case Studies, p.92)
This in many ways summarises the importance of colour in sending a strong message out into society, but also to the individual viewer. The powerful connotations linked to colour should always be considered in design as they have a profound impact on the viewer. It can assist them in making those societal or historical links and add further meaning and impact. By understanding the “why” behind colours, designers are then able to incorporate specific colours into a design and create or emphasize these links; it makes the work itself further meaningful and not simply an aesthetically pleasing design.

![Figure 29: Panoramic view of the Scrovegni (Arena) Chapel, Padua, Italy](image)

Gender can also be represented through the use of colour and is socially constructed. Pink is often associated with girls and blue with boys. It was not until the 20th century when colours such as pink and blue were associated with gender. Maglati, J. from The Smithsonian Institution published the article, ‘When Did Girls Start Wearing Pink?’ (2011, par.5-8). This article explores when the gender stereotypes of pink and blue were established. Pre 20th Century, infants and children wore white as it was a practical colour to come across (it was easy to bleach clean) and it was also
considered unimportant to advertise the gender of the child. Today’s association of pink and blue with gender were honed through popular culture. Maglati cites an article from the June 1918 issue of *Earnshaw’s Infants’ Department* stating that pink originally was designated to boys as it was considered a “strong” colour, whilst blue was considered more dainty and delicate and therefore most appropriate for girls. Blue was also associated with the Virgin Mary due to religious historic links which made it appropriate for girls. World War Two can be linked as where the shift from pink from a masculine colour to a feminine colour began. The Nazis coded their Prisoners-of-War through the use of colour and symbols. Homosexual men were identified and shamed by being forced to wear a pink inverted triangle symbol sewn to their shirts. The Nazis believed that homosexuality was a “…contagious disease. The plague was highly dangerous because it affected the young, precisely the group destined to bring future soldiers of the world.” (Plant, R. 1986, *The Pink Triangle: The War Against Homosexuals*, p.102) It may have been this categorisation that changed the gender association of pink, as the previous connotations to the colour that were linked to strength and masculinity now appeared effeminate. This is vital for the designer as colour trends and stereotypes change over time and it is important to consider the current colour stereotypes in order to make colour links that are relevant to the target audience or to purposefully reference historic trends.
The Pantone Company are responsible for assisting in communicating colour due to their categorisation system that has been used for over 50 years. *Pantone: The 20th Century in Color* (Eiseman, L & Recker, K. 2012) catalogues colour trends that occurred throughout the twentieth century. This is a useful resource as the colour scheme trends are explained from a historical standpoint. An iconic example is visually demonstrated in *Figure 30*, the grunge 1990’s colour palette\(^3\). It is noted that these hues may have become popular due to economic downturn caused by individuals who rejected materialism. The youth of the time rebelled through graffiti art and the popular musicians were bands such as Nirvana who “put their generation’s angst into cathartic words and music…” (p.174) “Purple Haze and Coffee Bean refer to the birthplace of Grunge, and Faded Denim, Earth Red and Gull to its thrift shop dads. Dark Shadow, of course, captures something about Grunge’s mental state.” (pp.174-5) Using Pantone as a consult saves the designer valuable time as they have mapped the colour scheme preferences specifically and are able to supply often adequate description as to why these hues were preferential. This equips the designer with the opportunity to create a scenic design that has colour choices that are specific to the time period/s found within the play.

\(^{3}\) This palette was used in my scenic design of Hoods (2012) pp. 61-62.
By understanding some of the cultural, social, religious and historical links to colour
the designer is able to create contexts and elicit stronger audience comprehension of
the play. This can only be achieved effectively by understanding who the target
audience is and the links they may have with colour. The choices that are made must
be relevant to the viewer, otherwise the design can fall short and not enhance the
director’s message. The final section of this thesis will examine how some of these
links and those that preceded it in previous sections have been used to affect audience
response.

Analysis and Case Studies

The productions that will be examined in this section are based on designs and live
shows since 2010 for which I was the artistic designer. All of these productions were
performed at the Nexus Theatre, Murdoch University, South Street Campus, Perth,
Western Australia. The Winter’s Tale (2012) was performed at Nexus theatre but also
toured across Malaysia. The shows included in this case study are:

- The Phoenix and the Fighting Pandas of Yunnan Province 2010, written and
directed by Associate Professor Jennifer de Reuck – Children’s Theatre
  production
- The Minstrel’s Tale 2011, written and directed by Associate Professor Jennifer
de Reuck – Children’s Theatre production
- Hoods 2012, written by Angela Betzien, directed by Lisa Johnstone – Abstract,
  realist production
The Lesson 2012, written by Eugène Ionesco, directed by Lisa Johnstone – Absurdist, realist production

The Winter's Tale 2012, adapted and directed by Associate Professor Jennifer de Reuck – Shakespeare production

Zak Zebra’s African Safari 2013, written and directed by Associate Professor Jennifer de Reuck – Children’s Theatre production

The Phoenix and the Fighting Pandas of Yunnan Province (2010) by Associate Professor Jennifer de Reuck is a play designed for the Children’s Theatre unit at the university and aimed towards children near or within primary schooling years (ages six to twelve). The play is set in China and the design concept was to relate the dramatic action to a Disney-esque, picture book idea. Each scene was to be reminiscent of a children’s picture book and therefore relatable to the viewer. It was in this show that I first began to focus on what it meant to achieve colour harmony. I based my understanding around the theory of balancing colour and using a variety of colour schemes in moderation. I used a combination of analogous, monochromatic and complementary colour schemes to create my overall palette. Within this palette I

4 The Phoenix and the Fighting Pandas of Yunnan Province, 2010. Murdoch University Events synopsis: “There’s danger afoot on the island of Hainan in the South China Sea, and a crew of Australian animals are determined to protect the ancient Tribe of Sea Turtles threatened with annihilation. They have all sought refuge under the Mountain of Wuzhishan as they await the arrival of the wicked Pie Rats, who strike fear into the hearts of every creature in their villainous sweep across the oceans destroying everything in their path.

Who will help them defeat the Pie Rats and save the ancient Tribe of Turtles? Only the wise old Confucian Black Bear can tell, and he knows how difficult their quest will be. To win this battle, they must summon the bravest force in the whole of China: the Fighting Pandas of Yunnan, whose martial arts skills are the stuff of legend, but who answer only to the call of the Great South Wind... and she has been silent for centuries. Someone, somewhere, must know how to reach her!” (De Reuck, J. 2010)

5 See page 24 for diagrams of colour schemes.
incorporated highly saturated colours to help engage the target audience and emphasise the picture book border effect. After studying the colour schemes used by Disney artists in feature films I found a trend in using a combination of colour schemes. Disney is a popular company amongst children and universally known, thus the colour schemes would be relatable and recognisable to the target audience. Like many Disney animations, my set incorporated a complementary colour scheme to evoke maximum audience attention and response. The Disney palettes also use analogous and monochromatic schemes which made the background environments appear balanced and in harmony. These combinations are not over stimulating but are still visually pleasing as they are close to nature. Geraldine Kovats was one of the background artists who worked on many Disney films such as Mulan (1998), Tarzan (1999), Lilo and Stitch (2002) and Brother Bear (2003). Figure 31 demonstrates the uniform quality of these Disney films and how they incorporate analogous, monochromatic and complementary colour schemes. Figure 32 illustrates the

![Figure 31: Left to right (from top) - Mulan, Tarzan, Lilo and Stitch and Brother Bear by animation artist Geraldine Kovart. 1998-2013](image-url)
similarities in the colour schemes found in *The Phoenix and the Fighting Pandas of Yunnan Province* to the Disney style. The set achieved colour harmony due to the incorporation of the colours across the stage and the use of complementary colours to add contrast and unity. The contrast is achieved via the opposing colours enhancing one another and the unity is realized due to the consistent approach in all set panels.

Figure 32: Colour harmonies and palette types in *The Phoenix and the Fighting Pandas of Yunnan Province* (2010)
The Minstrel’s Tale\(^6\) (2011) was the polar opposite to The Phoenix and the Fighting Pandas of Yunnan Province (2010) as it was set within medieval Europe and contained multiple façade painting panels, unlike the two-dimensional, story-book effect that was focused upon in The Phoenix and the Fighting Pandas of Yunnan Province. The colour palette was also different in The Minstrel’s Tale as it had less variation of colours and relied on a select palette that was expanded through the mixing and blending of colours to create new hues. This show contained a lot of historical art references, in particular, medieval artwork from Europe. An important reference during this show in terms of design and colour was the Lady and the Unicorn (15th Century) tapestries at Cluny, France and the illuminated manuscripts, also found in France in the Book of Hours (1400s). These artworks were extremely significant during the medieval period and therefore important to include not only the stylised imagery but more importantly, the colours. I used artworks from the Book of

\(^6\) The Minstrel's Tale, 2011. Murdoch Media synopsis: “...takes place in medieval Europe where, with help from the Wandering Minstrel, the audience will take a journey back in time, into a world where an evil duke reigns. The Minstrel's Tale is a rich medieval tapestry, telling a story of peasants and princesses, dragons and unicorns, monks and nuns, hunters and peasants. There are musicians and strolling players and a conflict between good and evil that shows how difficulties may be met and overcome. :” (De Reuck, J. 2011.)
the Hours and The Lady and the Unicorn tapestries as references and simplified them for children’s theatre. The frames that sat around the entrances and exits on the stage and the musician’s “box” were painted similar to the calligraphic style of painting within The Book of the Hours and the use of bright ultramarine blue, gold and vermilion red aimed to specifically reference them. The positioning and colour of the unicorn in the stained glass window was also a direct reference to these works. The trees used on the set were similarly painted in the medieval fashion with geometric blocks of colour that were rendered with analogous hues.

To achieve a harmonious and aesthetically pleasing design, the bright saturated hues needed to be balanced by the soft shades of purple and blue used in the stonework design. This contrast of strong colour, mixed in with analogous stone palette assisted in ‘grounding’ the play in an environment that was believable. Using warm and cool hues also allowed me to create depth in areas such as the cloisters and the stone stairs. Blue was blended into

Figure 34: Master of the Ghent Privileges.1450. The Book of the Hours - ff. 22v-23, Annunciation.

Figure 35: Bell, A. 2011. Trees in The Minstrel’s Tale.
the middle and dominant tone (the middle analogous hue in Figure 36). This assisted in the creation of shadows and therefore depth. Subsequently, I used a lighter blue to then create the highlight. This *trompe l’oeil* effect was well balanced due to the absence of black in the colour palette. Black would flatten areas that I wished to recede so I avoided it completely in the shading and highlighting processes.

![Example of colour palette types in 'A Minstrel's Tale' (2011) showing colour harmonies](image)

*Figure 36: The Minstrel's Tale (2011) colour schemes.*

Symbolically, the colours used on the dual banners were purposeful and meant to represent the opposing families and their values and personalities. Even though both banners represent oppositional families I wanted to make a conscious effort not to engage in stereotypical colour choices of “good and evil” as I wanted the viewers to draw their own conclusions about the banners without being pushed into taking sides.

I feel it is important to challenge the audience so that they question, think or wonder
why an element is included or who the colours in the design support/critique. A sense of mystery and “showing” not “telling” can have a significant impact.

Hoods\(^7\) and The Lesson\(^8\)(2012) were two shows that were double-billed. This affected my design and colour choices as both shows were very different and therefore it was important to create two separate colour environments. Hoods was a realist show based on the tale of three children and their abandonment by their mother. The Lesson is an absurdist play that originally was meant to be performed in an abstract environment. Visually I wanted to “flip” these environmental concepts through the use of colour. The way I worked on this was by creating a very abstract verses literal environment between both plays. Hoods had a wide, open environment that had minimal “constructed” pieces – the car itself that the children await their mother in is constructed throughout the play by the actors and are literal pieces of a car. The Lesson set was half the size of Hoods (set upon the apron of the stage, in front of the curtain) and incorporated many set pieces, predominantly furniture and purposeful clutter (small items such as books, artefacts, stationery, etc.). These shows were different to my prior experiences as there was no painting involved, therefore the colour schemes were achieved through the use of materials of like hues to create a

\(^7\) Hoods 2012, Mood Theatre synopsis: “Hoods is an Australian play dealing with abandonment of the most members of society, our children. This performance promises to be an excellent display of physical theatre within a brilliantly written Australian play. Hoods follows the story of siblings Jessie and Kyle stuck in a car waiting for their mother. As night falls ordinary people and objects take on a dark twisted face as the children try to find their way home in the manner of Hansel and Gretel. Just like the Grimm fairy tales of old, things do not end happily or do they? Highly recommended for Drama and English classes for years ten to twelve as an example of Australian drama and physical theatre.”

\(^8\) The Lesson, 2012 Mood Theatre synopsis: “The Lesson deals with power relationships skewed by Ionesco is considered one of the fathers of the Absurdist Theatre movement. This performance offers students a rare opportunity to see one of the most important works within Theatre of the Absurd cannon. A dark comedy The Lesson explores the power of language between student and teacher. The play begins with an eager student ready to learn but as the lesson continues, things are not as they seem. Beneath the clutter of the eccentric professor’s room a dangerous secret lurks waiting. This performance is highly recommended for Drama classes for both years eleven and twelve.”
colour environment. *Figures 37 and 38* demonstrate the differences between how spaces were made through the use of concrete materials.

![Figure 37: Hoods (2012) and the abstract "constructed" set.](image)

*Figure 37: Hoods* (2012) and the abstract "constructed" set.

![Figure 38: The Lesson, 2012. The show directly after Hoods. - A very literal and cluttered set space.](image)

*Figure 38: The Lesson, 2012. The show directly after Hoods. - A very literal and cluttered set space.*

Colour was integral in terms of the designs for these shows. I wished to juxtapose each play through the use of warm and cool colours. For *Hoods* I kept the stage floor black and used reflective tape to create the illusion of a car park on the outskirts of a scrapyard. *The Lesson*’s stage floor was covered in warm, light-coloured rugs and clothing which allowed the black space of the floor to be effectively filled. Each set had a strict colour palette that had to be adhered to. *Hoods* had a cool colour scheme whilst *The Lesson* was warm. Each set had an absolute absence of the other
temperature’s hues. This, I believe had a profound effect on audience response as it created a dramatic difference between the two sets due to a variety of factors which will be explored below.

The first way this affected audience response was the spatial effect these colour tones had on the stage. The blue colours in Hoods made the stage space appear larger and on-going whilst the red, yellow, brown and orange tones in The Lesson made the space advance and appear “full”. This had an affect on the audience as when they returned from interval, the large, open space in Hoods had been replaced by the small, cramped and intricate environment of The Lesson. Rugs covered the black floor in The Lesson which allowed for light to be reflected and refracted and visually created an advancing effect whereas the predominantly sparse, black floor in Hoods absorbed light and colour and assisted in creating a sense of detachment from the ‘real world’ as the set pieces in Hoods existed upon the consuming black floor. As mentioned in pages 19-20, colour temperature affects us as red wave-lengths are read more strongly and appear more noticeable than the short blue wave-lengths.

Figure 39: Example of the "cold" appearance in Hoods, 2012.
The physiological effect of colour in these plays were as well executed due to colour temperature. Firstly, the cool tones in *Hoods* have the physiological effect of slowing down the heart rate and decreasing body temperature due to the lack of stimulation of the hypothalamus. This would make the audience feel physically cool alike to the characters in the play – as the children (the actors) often reacted and referred to the cold temperature of their environment. *The Lesson* had a lot of warm hues and in a few areas, purposefully placed pieces of bright blood red. The purpose of this was to excite the viewer in a way that would make them physically feel the tension and anxiety within the room. The highly saturated red and yellow hues throughout the set would add to the anxiety and stress.

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felt, as these strong colours would create physical muscular tension due to hormonal and endocrine signals.

The emotional and psychological responses in *Hoods* and *The Lesson* also link closely with the physiological responses. Emotional responses are typically evoked via physiological reactions or symbolic and cultural associations with colour. The use of cool tones emphasized the sense of sadness, loneliness and desolation felt in *Hoods*. Symbolically (Western), blue is associated with sadness (“feeling blue”) and cold/coolness. As mentioned above, the audience can feel physically cool whilst watching the production due to physical responses, this can build a sense of empathy with the characters in the play as the audience is experiencing similar physical responses. The warm tones in *The Lesson* were meant to create and heighten the sense of danger, claustrophobia and anxiety. The symbolism in the highly saturated hues such as red and yellow typically relate to danger or a warning, as seen in Stop and Caution signs. The purpose of this was to add visual clues for the audience to consider in terms of the “character” of the Professor through his environment. These effects were enhanced further by lighting designer, Clare Talbot. Clare expertly contrasted warm and cool lighting, as well as complementary hues to create further emotional and psychological responses. One

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10 See psychological effects: pp. 17-18.
example is when the Professor is reminiscing on his life and seems very jovial. The play of pink light drew out the bright yellow tones (a reminder to stay on guard) but did mute a lot of the reds and oranges due to colour refraction. In the final, more violent scenes, the lighting moves towards a complementary colour of green and creates a very unsettling palette. The bright/blood reds and strong yellows advance out and further enhance the sense of tension and upset. This also demonstrates the effective nature of using complementary colours to draw attention to certain areas of the stage in terms of viewpoints.

Figure 43: The Lesson, 2012. An example of complementary and analogous coloured lighting to strengthen psychological and emotional audience responses.
I consulted the Pantone *The 20th Century in Color* text\(^{11}\) to assist my colour choices in terms of capturing a set ‘time’ for both *Hoods* and *The Lesson*. *Hoods* was set in the 1990’s so referring to the 90’s grunge palette was appropriate and complemented the play as it reinforced emotional links and created social and cultural connections. The environment in *The Lesson* was far harder to pinpoint as I imagined the Professor in an ongoing cycle of chaos that lacked willingness to change and therefore the colour combinations had to appear dated, but not so much in a way that the warm hues would be detracted from. I decided to use the colour schemes from the 1970’s as they were described as the “therapy session” after the 1960’s (pp.138-9). The warm tones of this palette made it recognisable and useful in terms of my design goals (for a wholly warm colour scheme) but also contrast well with saturated red and yellow.

The scenic design for Shakespeare’s *The Winter’s Tale*\(^{12}\) (2012) was heavily influenced by the works of Gustav Klimt. I personally find the works of Klimt appealing

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\(^{11}\) The Cultural, Historical, Religious, Social and Symbolic Responses to Colour – Pantone. p.47

\(^{12}\) *The Winter’s Tale* (2012) Murdoch University Events synopsis (par. 1-2): “The conflict begins when King Leontes of Sicilia suspects his wife Hermione of having an affair with their friend King Polixenes of Bohemia. What ensues is an amalgamation of betrayal, lost love and death. Inspired by the art of Gustav Klimt and the fashion of the Edwardian era, this production promises to showcase everything we know and love about Old Bill; young love, jealousy, mistaken identities and of course the occasional wild animal.
as the contrasts he establishes and his use of colour in creating environments as well as the use of pattern fascinate me. Using gold leaf, like in Klimt’s works, also added a sense of decadence and alluded to wealth and power, elements found within Shakespeare’s text. I believe that Klimt’s *art nouveau* style complimented the themes found within the play and was the perfect vehicle in creating a set design so different from my previous works. *The Winter’s Tale* was my opportunity to apply my knowledge of colour in a completely aesthetic and painterly manner. My objective was to create scenic designs that if captured at any moment would force the viewer to feel as though

![Figure 45: The Winter’s Tale, 2012 dominant colours (all others mixed from these hues).](image)

This interpretation of the play also serves as an educational platform for understanding Shakespeare in our contemporary world. Director, Jenny de Reuck observes: “Even Shakespeare’s less well-known plays have wonderfully drawn characters and language that makes us view the world through his extraordinary ‘take’ on humanity. The Winter’s Tale, in our production, harnesses his vision to that of the Viennese painter, Klimt in a provocative reinvention that remains faithful to Shakespeare’s particular achievement.” (De. Reuck, J. 2012)
they were watching a moving painting. The intended design meant that there would be very few “flat” spaces, that all parts of the stage would involve blended colour, pattern or gold leaf. There was only one aspect of the stage that was “flat” and this was scene in the arches. The arches were purposefully painted with blocks of solid colour and heavy patterning. The purpose of using flat colour against heavily patterned sections of the set was to create visual contrasts and separate the “natural” world from the man-made “constructed” world – as seen in the castle scenes.

In The Winter’s Tale, cool and warm colours were juxtaposed to link with the characters and to establish differences between the environment of Part One (Sicilia) and Part Two (Bohemia). I painted two very formal and detailed canvasses titled ‘Comedy’ and ‘Tragedy’. The patterned clothing style of Klimt and the soft skin tones were a primary focus. In the foreground of each image, the environments of Sicilia and Bohemia are represented. Sicilia is where the tragedy of the play occurs, hence the

![Figure 46: Comedy and Tragedy. 2012. Bell, A.](image-url)
extrusive use of blue to link to emotional and symbolic connotations such as sadness, loneliness and separation. The figure in ‘Tragedy’ is also detached and disconnected from the environment and is separate from nature. ‘Comedy’ on the other hand relates to the environment of Bohemia and the shift in the play after the first act to a lighter, more jovial mood. The warm tones in ‘Comedy’ and how the figure’s clothing optically blends into the environment is meant to show the connection with the land as well as positive connotations such as excitement, warmth and love. Hues from each panel are scattered across the patterned floor to provide consistency and aesthetic harmony and balance.

Klimt’s paintings of landscapes were very inspiring to me and by referencing them through the application of colour, the audience can create links to that period of art. It is not necessary for the viewers to be familiar with the works of Klimt, or even the art nouveau style in order to be able to understand and “read” the play. The referencing to this period of art does add symbolic qualities that can assist in conveying the messages found within the play. One scene that is the most striking in The Winter’s Tale is during the finale. We altered the original depiction of Queen Hermione as a statue to instead a painting. The “moving painting” design fitted well with this scene as the costuming and lighting emphasized the painterly quality. Hermione’s costuming and the pattern in the frame

![Figure 47: Klimt, G. 1903. Birch Forest.](image)
blended closely in colour. Before the ‘reveal’, Hermione is shrouded by a multicoloured cloth that matches the frame design. This variation of colour and pattern combined the concept of one of Klimt’s famous portrait (Figure 49) with a literal version (In *The Winter’s Tale*).

*Figure 48: Actor Joel Sammels (Leontes), Actresses Sam Knox (Paulina) and Amy Murray (Hermoine) in Act Two of *The Winter’s Tale* (2013)*

*Klimt, G. Adele Bloch-Bauer’s Portrait, 1907.*

The scenic design of *The Winter’s Tale* by Sean Joseph Urbantke (2009) was an interesting thesis to read through as it gave me another perspective on design possibilities. The images that are created by the scenic designer and the director are an interpretation of the original written works.

It became clear to me very early on that this play called for three very specific location/moods. The first was the cold, dangerous world of Sicilia. The people are rigid, the feeling very geometric and vertical in its nature, and it’s the kind
of environment where a king can make the terrible events that unfold in the first act actually happen. The second was Bohemia, a much warmer and organic place that is more inclined to the celebration of life. However, it still harbors a lurking volatility, foreshadowed by the appearance of the bear and the murderous end of the character Antigonus upon his arrival on Bohemian shores. Something sharp and geometric, unyielding and unrepentant needed to be present in the design, this time with an emphasis in the horizontality, warmth, and openness of Bohemia. The final location/mood is Sicilia upon the children’s return, a place that has repented, softened, and contains elements of the Bohemian attitude towards life, and the Sicilian respect for honor. It had to contain elements of both original places in a softer and more inviting form.

(p.1-2)

This design interpretation is in some ways similar to my designs of *The Winter’s Tale*, in terms of the use of geometric verses organic. This connection is one that is not impossible to create as the original text eludes to the moods found within each environment. Act One is set in Sicilia and within Leontes’ palace. As a palace is a man-made structure, it is naturally logical to link geometric shapes. Bohemia in Act Two is described on the coast, however Bohemia is a land-locked region. In my opinion, this gave me free reign to represent Bohemia as a natural and organic land. What I found lacking in Urbantke’s design concepts was the lack of colour consideration. He does describe Sicilia as a cold, dangerous and rigid world and therefore in his opinion geometric lines were integral, but colour can evoke responses that allude to mood set in Sicilia and during this act. Bohemia is described as a warmer land that is “softened” – I am unsure of how this has been achieved as there is a lack of detail in how colour can contribute to this softened palette. The images of Urbantke’s design are textually interesting and do build upon the cold environment of Sicilia, however, it is overall a
very dark design and does not seem to vary sufficiently from the Bohemian environment. I believe the contrast between lands should be noticeable and unique as they are supposed to occur in different spaces. Figure 44 demonstrates the contrasts between the Urbantke set and my own design between Act One and Two. As observable, colour dominates my design and the use of coloured light works to emphasize mood. The projected coloured light in Bohemia (Clare Talbot) was done in a kaleidoscope style to create soft shapes and spaces. The theme of orange played across the entire set throughout the play, whilst Urbantke’s set appears dominated by black and flattened spaces. The overuse of black makes it difficult to colour the floor of the stage (through the reflection and refraction of coloured light) and create any type

Figure 49: Demonstrates the contrasts between Urbantke’s *The Winter’s Tale* (2008, top images. Photographs from Urbantke’s thesis *Scenic Design of The Winter’s Tale*) and my design of *The Winter’s Tale* (2012) – Bottom image. Both contrasting images are based loosely on the same dramatic moments.
of differentiation between the two different environments, which in my opinion weakens the overall design as it doesn’t allow for changeover between lands.

The amount of texture in this set design was very important to me in terms of creating space and a visually pleasing design. The floor design of this show was intended on being patterned and tie into the platforms and stairs. There were several purposes for this textured process. The first was that it would add to the Klimt, paint-stroke/pattern effect and link I wished to emphasise. The second purpose was due to the colour tones. I used a variety of saturated colours and complementary colours that were painted in random strokes across the stage floor. I did originally intend on painting the entire floor, however due to time resources lacking it was not attainable and the soft purple/blue hue were used for the front apron of the stage. The use of these randomised colours was to emphasize a dynamic space that could change easily under lighting. Page 13 and 14 examine how light reflects off different colours – so as the lighting changed, the floor would also as different colours would reflect and refract. In Sicilia the patterned floor with the stone ‘peeping’ through was intended to look carpet-like, whilst in Bohemia it was meant to reference fallen leaves. The softer hue on the apron of the stage created an additional effect of juxtaposing winter (ice, cold, Sicilia) and new life (warmth, brightness and Bohemia). The blue of
the stones and the “smooth” effect was also to play upon and emphasize the floor design.

![Image of The Winter’s Tale finale, 2013](image-url)

*Figure 51: Finale of The Winter's Tale, 2013.*

The Winter’s Tale toured across Malaysia and I was fortunate to be able to see the reinterpretation of my original design. At the University of Malaya, Kuala Lumpur, I was able to see their design of our show. Despite my knowledge of theory and the application of colour I felt the experience more useful and inspiring than any other design meeting I had attended before because it had a totally different perspective applied to my very Western design. Scenographer for the University of Malaya, Mr. Idham Hadi Md Nor and scenic designer, Mr. Radzi Razali recreated my design very accurately and professionally. I felt very humbled as many colours I had used back in Perth, Australia were simply not available or financially realistic for the university to
purchase. I had never before had to consider the availability of colour and did not consider the possibility of not being able to attain a particular hue. Being able to attain the colour blue and gold for the set was too expensive for the Malaya University budget. This experience taught me that when designing for a show that could potentially tour – the colour choices I made really were significant in terms of a financial factor. The colours of gold and blue were originally aimed to signify decadence and wealth and in the Western environment of Perth it was attainable and inexpensive. On the Eastern perspective however, the use of gold and blue would signify wealth and decadence also but because the colours themselves are expensive. In this case, the representation of colour is in some ways more literal in Malaysia than back in Australia. However, as mentioned above, these colours were not available so the designers had to improvise. They did use very small amounts of gold on the castle arches and could

Figure 52: Set design of The Winter's Tale reinterpretation by the University of Malaya. 2013.
not use blue at all. This resulted in a very warm looking set that incorporated a lot of browns, reds and oranges. The shape, structure and the brilliance of the orange were almost identical to the original Australian set. The absence of blue withdrew the variation of colour tones that could be drawn out through lighting, however I do believe the essence of the design was captured well due to the textual combinations that broke up the large spaces of colour.

There were two independent reviews of The Winter’s Tale, 2012 Perth production. As a designer a review can be a great insight in terms of how the audience perceived the set and if it aligns with the desired outcome. “The scenery for the palace was carefully designed in the style of Klimt (Allison Bell) and the leafy bower was most effective too.” (Gordon The Optom, 2012. TheatreASN par. 10)

The set, costumes and sound were all so wonderful – part of what made the play such a good show. I have seen sets by Allison Bell previously, and yet again she is so successful with her attention to detail and emphasis on colour. The set was simplistic, although great complex detail was put into the painting. The back of the stage featured ramps for character’s entrances, with some two-dimensional pillars/arches that could be flown in and out. The floor of the back had colours that reminded me of Autumn or possibly Spring, and the front half was white – reminding me of winter, along with blue along the outskirts. On one side, a painting of a woman with the word ‘tragedy’, in blue (one of the main colours used in the set), and another painting of a woman with the word ‘comedy’, in orange (the other main colour). The set was effective, and along with the lighting allowed a great shift between Bohemia and Sicilia without much of a set change – only the addition or removal of
chairs was necessary. In the first half, the mood (conveyed through the music and lighting), and colours all worked together to create the tragedy, and later, all warmed up to bring out the comedy. All of these aspects seemed to compliment one another very well, and more importantly complimented the show… I will always think fondly of the beautiful aesthetics of this show, along with the mix of powerful and subtle characters that this adaptation brought.

(Obvious Illusion, 2012, TheatreASN par. 12, 14.)

These reviews are the only two official written responses I have so far in my design work and am naturally highly appreciative of them. It brings great joy to know that a viewer has responded favourably to the design you have created and especially engaged due to the use of colour! Whenever a show opens to the public, there is always the fear, and butterflies, of all the ‘what if’ moments, such as what if the audience does not respond well, or miss the idea or purpose of your colour choices. It is not until you have sat amongst the audience and listened to the oohs, aahs and whispered comments until you can truly feel relaxed. Having a theoretical, historical and contextual understanding of colour can assist self confidence in colour choices, however I do not ever think the ‘butterflies in the stomach’ feeling ever goes away before opening night.

Zak Zebra’s African Safari\textsuperscript{13} (2013. De Reuck, J.) was similar to The Phoenix and the Fighting Pandas of Yunnan Province in as it used a lot of highly saturated colours. As

\textsuperscript{13} Zak Zebra’s African Safari Murdoch Events, 2013. Synopsis: ‘Children’s Theatre at Murdoch continues its educational project bringing exciting stories to life in a vibrant theatrical production for primary school children. This year we move to the African savannah where we meet a young Zebra, Zak, and his friends, a lion cub, a cheetah, a rhino and a hippopotamus. Together they face an enemy that threatens their world, their adventures taking them from the plains of central Africa to the edge of the great Zambezi River where “the smoke that thunders” reveals a wonderful truth about life to the
it was a children’s theatre production it was logical to create a set that appealed to children. This meant using a complementary colour scheme and, like The Phoenix and the Fighting Pandas of Yunnan Province, a combination of monochromatic and analogous colour schemes to create balance and colour harmony. Colour balance is important to me as a designer because it means that the set is easy to read and understand – that it does not jar or distract from the message in the play and the director’s vision. Zak was another set that incorporated a harmonic palette. 

Figure 54: Colour combinations and schemes for Zak Zebra’s African Safari, 2013.

See section Physiological Responses to Colour, pp. 25-26.

14 See section Physiological Responses to Colour, pp. 25-26.
shows the dominant colours that play across the scenic design throughout the entire play. The primary colours (red, yellow and blue) were almost consistently on stage.

**Zak Zebra’s African Safari** allowed a more extended colour palette than previous productions. In the past I used a maximum of 4-5 colours and then create additional hues through blending, mixing and adding value of white and black to create monochromatic palettes. For this production I was able to use different ‘temperatures’ of primary colours (warm and cool yellows) which gave me more colour choices in terms of colour mixing. **Figures 55 and 56** demonstrate my mixing technique of how I create a palette and new hues. I would use my yellow and blue colours to create

![Figure 54: Palette for the tree trunks. Using value (white and black) as well as blue for shadows and highlights.](image)

**Figure 54: Palette for the tree trunks. Using value (white and black) as well as blue for shadows and highlights.**

![Figure 55: Termite mound colour palette. Analogous hues. Red, brown and yellow.](image)

**Figure 55: Termite mound colour palette. Analogous hues. Red, brown and yellow.**

![Figure 56: Termite mounds, demonstrating the blended three hues in Figure 55.](image)

**Figure 56: Termite mounds, demonstrating the blended three hues in Figure 55.**
highlights and lowlights for blending areas (as seen in the tree trunks). The termite mounds consisted of analogous hues that were highly saturated which visually contrasted with the softer hues of the stage floor (Figure 54).

The focus in *Zak Zebra’s African Safari* was predominantly on creating textures through colour. Warm and cool colours were used to create depth by off-setting saturated colours next to colours that are of different colour temperatures. This technique was explained in the section on physiological responses to colour and creating depth through the use of complementary colours. I wanted a clear distinction between environments in Act One and Two (the Serengeti and the Zambezi). The Serengeti predominantly consisted of warm analogous hues (yellow, orange and brown), whilst the Zambezi incorporated a similar palette but set in a different analogous scheme (brown, green and blue). Figure 58 shows the differences between the textual environments by the use of colour hues. This example also demonstrates the spatial differences created through the use of texture, as Act Two appears to be a more confined space, a tangled jungle, whilst the Act One design aligns with the
concept of safari plains (the space appears more open) as there are not less set pieces on stage and a smaller variation of hues.

Prehistoric rock paintings found in Africa were referenced in *Zak Zebra’s African Safari* and I decided to use bright vermillion to emphasize and reference the traditional red ochre colour. This reference to art history is one I like to incorporate in my designs as it grounds the set and its world in reality. The ability to make the magical appear real is especially important in Children’s Theatre. Giving children the sense that something fantastical and magical can happen in their own world adds to the sense of wonder and excitement they experience when they view a theatrical performance. *Figure 59* illustrates the rock painting motif that occurred throughout the scenic design. Including numerous references and connections to the outside world through design allows for additional ‘visual cues’ and information that can add to the meaning and message found within the play. This use of relevant visual cues and symbols also engages

*Figure 59: Women and Cattle, Rock Painting in Chad. Prehistory, undated.*

*Figure 58: Example of rock painting motif in Zak Zebra’s African Safari, 2013.*
the viewer as the set is relatable and hence able to be comprehended.

**Conclusion**

My designs could not have come to fruition or be effective without research. It was through my research and understanding of theory and colour practice that I was able to create set designs that are dynamic and have maximum audience impact. Reflection and analysis of previous colour choices also helped in the development and subsequent progression of my scenic designs. “Designing is reflective thinking working in visual form.” (Osburn, B. 2011) This ideology lies with my values on the importance of understanding theory, cultural, historical, social and symbolic connections to colour in terms of impacting audience response. Considering all of these factors throughout the design process can empower the designer to create a set that has maximum impact for the audience and clearly communicates the director’s vision.
Bibliography


**Theatre Production References – Case Studies**


