

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

Out 2, 3

Performing Pattern

A thesis submitted in partial fulfilment of the requirements for
the Degree of Master of Design

Massey University, Wellington
New Zealand

Kristine Ann Brooks
2012



Figure 1. Kristine Brooks. Jagged Edges. 2008.
Hand-drawn surface repeat pattern. Ink and felt tip pen.



Figure 2. Kristine Brooks. Together We March. 2011.
Still image taken at the Royal Nova Scotia International Tattoo, Kristine second marching girl in from the right.

Acknowledgments

Thank you to my friends and family for their endless support and inspiration during this endeavour.

To Yanetta Hiko, Tina Liu, Hannah Huong, Ailsa Mcculloug, Ngaire Dixon, Angus Donaldson, Alan Batson, Sandy Pawson, Uli Thie, Karl Partsch, Eddie Partsch and William Minty for your incredible assistance and practical support.

To my team members from the Lochiel marching drill team and coach Colleen Pobar, thank you for your astounding support.

To my supervisors – Lisa Munnelly and Natalie McLeod I am grateful for all your outstanding encouragement, insight and patience.

Contents

2	Introduction	31	Infinity Reflection/ colour/ space/ depth
4	Textile Background	35	Operation Reflection Reflective surfaces/ symmetry
8	Marching Background	39	Army of self Repetition/ reflection/ sound
11	Drawing pattern Embodied pattern/ space/ notation/ precision	43	Conclusion
21	Space encounters Architecture/ reflection/ space	45	Bibliography
23	(Re) Measurement of space 2D & 3D Recordings	48	Image credits
29	Vertical spaces Video/ pattern/ movement	49	Appendices

Introduction

Out 2, 3

Textile design, marching. Marching, textile design. Textile design, marching. Marching, textile design. Textile design, marching. Marching, textile design.

I am a textile designer and a competitive marcher. In 2010 I completed my undergraduate degree in textile design at Massey University. My undergraduate project was a collection of hand drawn surface patterns inspired by the sport of marching. This year, through my Masters of design research, I have combined my theoretical understanding and practical experience of marching with my education in textile design to explore the parameters of pattern. My research examines the feasibility of extending the common two-dimensional perception of textile patterning to a three-dimensional one. My commitment to both of these separate worlds had always been competing for my time and attention; it is now in my Masters research that I can marry the two. This is where it all begins: Textile meet Marching; Marching meet Textiles.

This research project will show that I am in a unique position as a designer because of my experience in both marching and textile design. Both worlds play a huge part in my life. Bringing the two disciplines together has enabled me to undertake an investigation into pattern, colour, space, and movement using a novel, three-dimensional method. The method used in this research, which involves 'works' or 'performances' has meant that I have been able to explore pattern in a unique, ground breaking way.

The objectives of my research are to investigate the following points:

1. What are the boundaries and dimensions of
 - (a) textile design
 - (b) marching
2. How can I create work which tests and defines these boundaries?
3. How can I mould the two together to create something new?

I will answer these questions through performances designed to explore reflection, space, and choreographic notation.

Firstly, I will give a short background illustrating the framework of this enquiry explaining key aspects from my concurrent interests in textile design and marching and the elements and principles from them that have inspired each of my performances.

Secondly, I will go on to discuss in detail each performance and how:

- I am breaking free from the constraints of two-dimensional static printed fabric into three-dimensional space and time
- I am breaking free from the constraints of following set choreographed marching drills, taking marching into new spaces through my own choreographed performance
- I am making three-dimensional moving patterns.

My performances are not marching and they are not textiles, they are the exploration of the boundaries, crossovers, possibilities, and potential disciplines of the two combined.



Figure 3. Kristine Brooks. 2008.
In action screen-printing repeat surface pattern length. Red and grey pigment onto white cotton .

Textile Background

Textile Design

Textile design is found in many aspects of everyday life. It appears in shelter, clothing, science, technology, art, identity, and household products. With innovative materials and technologies constantly being developed, the world of textiles is continually changing and growing. In this vast field of textiles, my specific area of interest is in printed surface pattern.

What captivates me is that pattern is relevant to so many different fields, from science to art. The American mathematician Ian Stewart (1998), cited in Kraft, (2004) highlights the broad spectrum of pattern when he states:

“Patterns of behaviour, genealogical patterns, patterned design, grid patterns, fan patterns, patterns of growth, Islamic patterns, pattern books, mosaic patterns, coat patterns...we live in a universe of patterns” (p.276).

It is through my love of pattern within textiles that I have begun to recognise aspects of pattern outside this specific field: patterns of footsteps on city streets, patterns of architecture as I move through the forms and structures, patterns of light hitting walls from reflection in mirrors.

Textile Design: Elements and Principles

In *Handbook of Textile Design: Principles, processes and practice*, Jacquie Wilson (2001) defines design elements as “the visual components that are used to build a design”, and design principles as “what the designer does with the elements to create a design” (Wilson, 2001).

The textile elements that I employ in this body of work are unit/motif, space and colour, and I engage with the principles of movement and repetition.

In this series of performed patterns I replace the traditional textile motif/unit with my body, which I organize according to textile design principles of movement, reflection, and repetition in pattern construction

Textile element: Unit /motif

In textile design a pattern is made up of multiple units/motifs. A unit in textile design is an element, that when repeated, creates a pattern. An example of a repeated unit is shown below in Figures 5 and 6. Figure 5 is the unit and Figure 6 is the unit repeated several times. Figure 6 shows a full-drop repeat pattern, the most basic repeat network.

There are many different ways a unit can be repeated; this structure is called the repeat network. Other repeat networks are half drop (Figure 10), brick, scatter, scale, diamond (Figure 7), hexagon and ogee. Each repeat network creates a different effect.

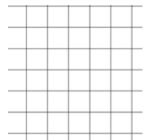


Figure 4. Kristine Brooks. 2012. Full-drop network.



Figure 5. Kristine Brooks. 2010. Repeat unit.

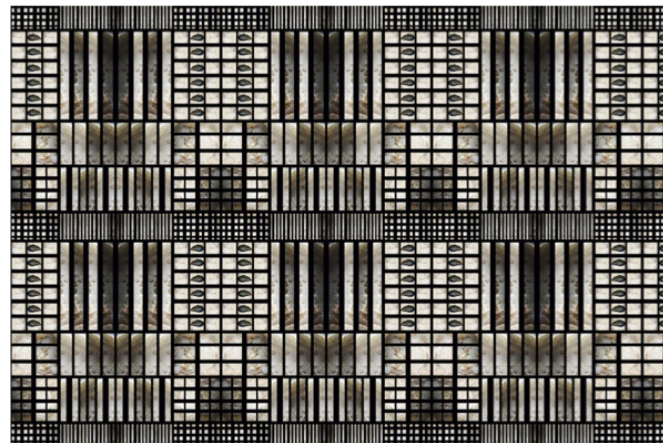


Figure 6. Kristine Brooks. 2010. Full-drop repeat pattern created using digital and photographic media.



Figure 7. Kristine Brooks. 2012. Diamond network.



Figure 8. Kristine Brooks. 2011. Repeat unit.

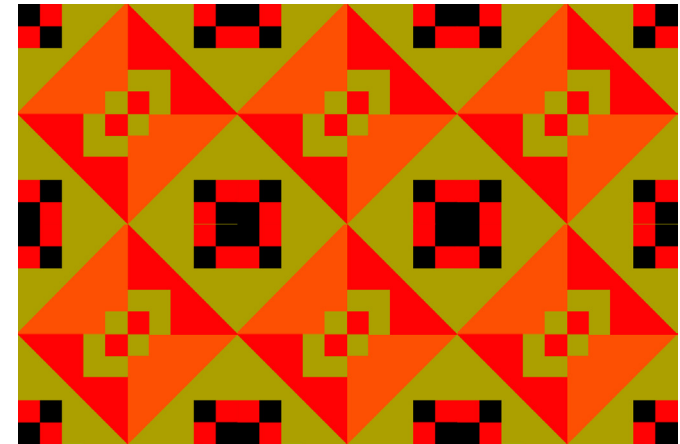


Figure 9. Kristine Brooks. 2011. Diamond repeat pattern created using digital and photographic media.

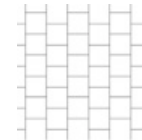


Figure 10. Kristine Brooks. 2012. Half-drop network.



Figure 11. Kristine Brooks. 2010. Repeat unit.

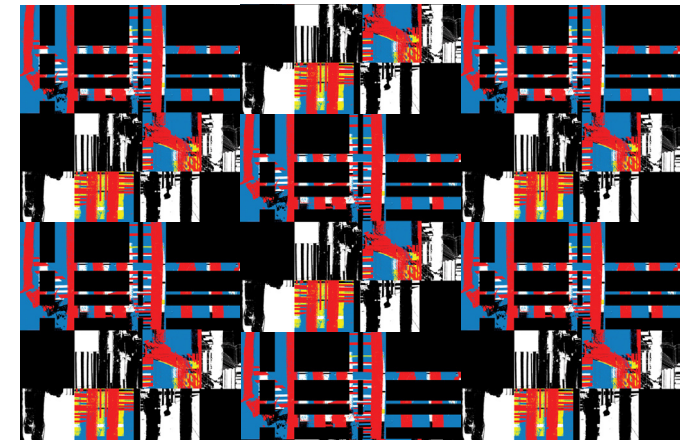


Figure 12. Kristine Brooks. 2010. Half-drop pattern, using photography and digitally designed.

All surface patterns are organised by the underlying structure. Some patterns are designed to hide the repeat network making it harder for the viewer to find the repeat, for example see Figure 13 below. In contrast, other designs expose the repeat network, and the space around the isolated motif forms an integral part of the final design, as shown in the *Toile de jouy* example in Figure 15.

Arguably, a good repeat pattern attains a sense of balance in its use of colour; texture, line and space, whilst an unsuccessful repeat pattern shows tram tracks and unintended gaps. Tram tracks are *unintended* lines occurring in the pattern such as the vertical lines forming in the pattern shown in Figure 14. In order to identify tram tracks or gaps, several units must be constructed together within the chosen repeat network. The most obvious defect is usually detected in the gaps which appear once the unit repeat is put into a repeat network. To solve this issue the motifs can be added or moved around within the unit.

Bar Figure 15 all designs are created by myself, and reflect traditional surface patterns, with an abstract layered, complex, fractured and geometric aesthetic.

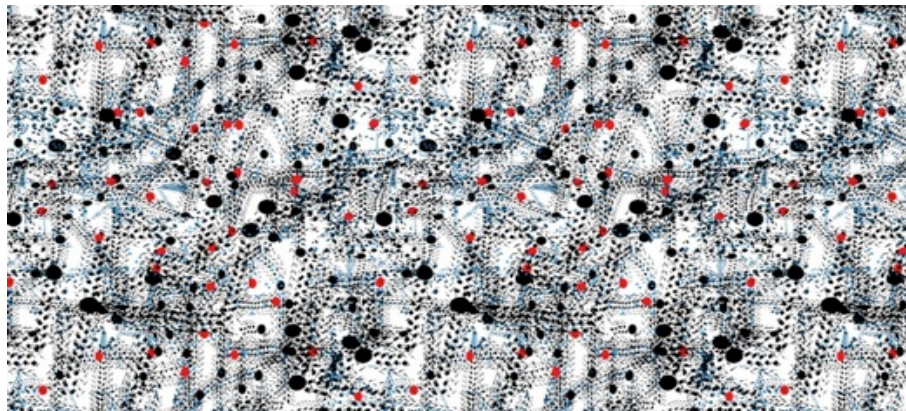


Figure 13. Kristine Brooks. 2008. Follow my Tracks. Hand drawn then digitally manipulated. Design sublimated on to glass tiles.



Figure 14. Kristine Brooks. 2008. Hand- drawn repeat pattern showing tram-tracks. Red ink and felt tip pen on paper.



Figure 15. Toile de jouy, contextual studies. 2011.
Retrieved from <http://contetualworkfmp.blogspot.com/>.



Figure 16. Kristine Brooks. 2008.
Dressed in full Lochiel marching Uniform.

Marching Background

"You can take a girl out of marching but you can not take marching out of a girl" (Bandolier marching team.1996.)

I can remember from the first time I started marching hearing the coach Wendy Lappin delivering the above sentence. I believe it truly resonates in my practice of the sport. I have experienced many team sports but marching, in particular, has many appealing aspects that keep me returning to it. These characteristics are the tight team camaraderie, the practice of combining mind and body coordination, performing the technical marching drill, freestyle choreography, and the equal playing field for team members.

The team spirit produces a tight bond between members of my marching team. The foundations of this tight camaraderie are sharing stress and pressure, training for long periods of time, having a common goal, respecting each other and the coach, and most of all, trusting one another. Trust is crucial; without trust the success of a team will be compromised. It is through trust that each member of the team is filling their position the best way they can through remembering their counts and movements, and being technically correct. With these foundations set in place, the ultimate goal of performing as one harmonious synchronised unit can be achieved.

Marching elements and principles

Applying Jacquie Wilson's textile terminology to the sport of marching; the 'elements' of the sport that I will employ are the marching steps (drills). The marching 'principles' I will draw on are repetition and synchronisation in my exploration of boundaries.

The elements in marching discussed within this body of work are:

- marching steps / drills (straight marching, goose step, high step, mark time, and salute), and
- marching movements (wheels, turns, about turn, slow march).

Marching element: Marching drill

There are many drills in the sport of marching, such as goose step, high step, mark time, salute and halt. Each drill is performed with precision, control and skill. It takes a lot of practice to perfect each of these drills using the right techniques. I will explain and show each drill with images along with the techniques and skills that I have been taught.

The 'High step' action is almost like riding a bike. Each leg lifts up towards the chest with a bent knee and pointed toes, and as it comes down it does a rolling action.



Figure 17. Kristine brooks & Rawinia Kaukau. 2011. Petone Rec Changing rooms. High step.



Figure 18. Kristine brooks & Rawinia Kaukau. 2011. Petone Rec Changing rooms. Goose step.



Figure 19. Kristine brooks & Rawinia Kaukau. 2011. Petone Rec Changing rooms. Mark time .

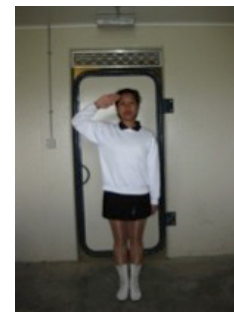


Figure 20. Kristine brooks & Rawinia Kaukau. 2011. Petone Rec Changing rooms. Salute.

The 'Goose step' action is when you swing your leg up straight just below the height of your thigh with your toe pointed. This drill is practiced by many military troops, and dates back to as early as the eighteenth century.

'Mark times' is a stationary drill. The action is similar to a high step but it is performed on the spot, and you don't do a rolling action as your leg comes back to the ground. The leg comes up with a bent knee with your toe to just above the ankle, and comes straight down next to the standing leg. This action is used both in marching routines and as an assemblage movement at the start of a routine or parade.

The leader of a marching team generally carries out a salute. The salute action comes from a military background. Basil Payne (2011) in the article '*Customs, Courtesies crucial to mission success*' refers to the military salute as a gesture of respect. In the sport of marching the salute is a sign of accomplishment, respect and appreciation.

A unit/motif occurs in both marching and textile design. For example, in marching each girl acts as a unit/motif which is repeated in the team forming a pattern. Although each girl is different, the aim is to strive to act as an identical unit through dress, performing drills and choreography. However, in textile design compared to marching, the unit/motifs truly are identical.

A technique used by marching coaches such as the New Zealand Lochiel marching team coach Colleen Pobar, is to use pen and graph paper as a structure to plan out patterns for each routine. I have provided my interpretation of a diagram showing the choreographic notation (Figure 21) outlining the pattern structure for part of a routine which is followed by team members as a template instigated by the coach. Also provided is a photo (Figure 22) of the implementation of the plan in action.

Once the patterns are designed for a routine, the marching drills and choreography are then put into place according to the structure of the performance. As a team, we then create the choreography and drills for the routine, while only the coach designs the structure.

These routines have been carefully designed to suit the venue and to entertain the crowd. Each routine has its own special character.

While marching is a sport its strong connection with the military is evident through the drills, strict routines, training methods and tight unity within the team. Artist and writer Brandon Labelle states:

Military drill is at the core of battle tactics, war strategies, and philosophies on how to order the inherent chaos of military conflict. Here military actions rely upon and necessitate the total organisation of bodies, which include not only soldiers and commanding personnel, but also factory organisation and labour, volunteer help, and the enactment of curfews and rationing onto the movements of daily life. (Labelle, 2008, p.170)

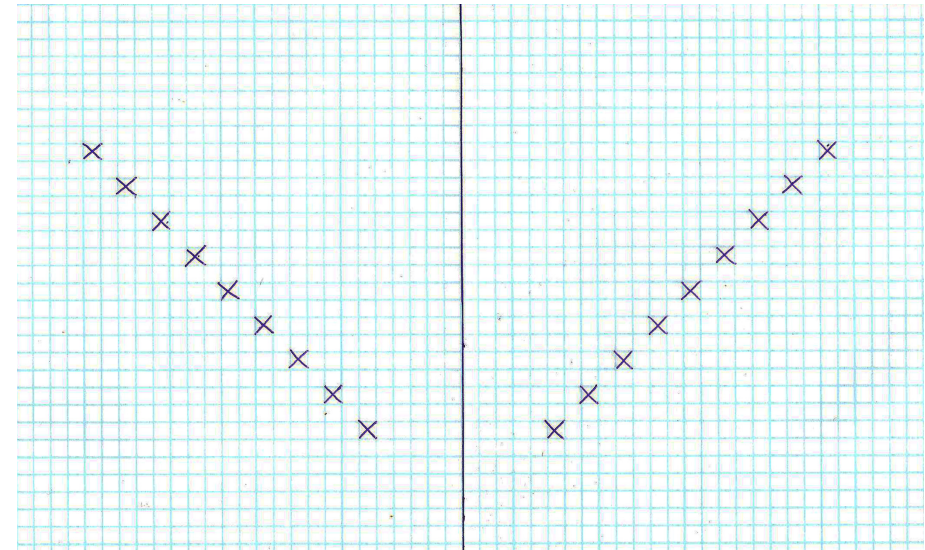


Figure 21. Kristine Brooks. 2011 Choreographical notation (birds - eye view) outlining each girl's position. Pencil on grid paper.



Figure 22. Kristine Brooks. 2011. Plan in action. Royal Nova Scotia International Tattoo. Video still.



Figure 23. Kristine Brooks and William Minty. Drawing pattern series. 2011. Photography using slow shutter speed. Performed in Rugby Field

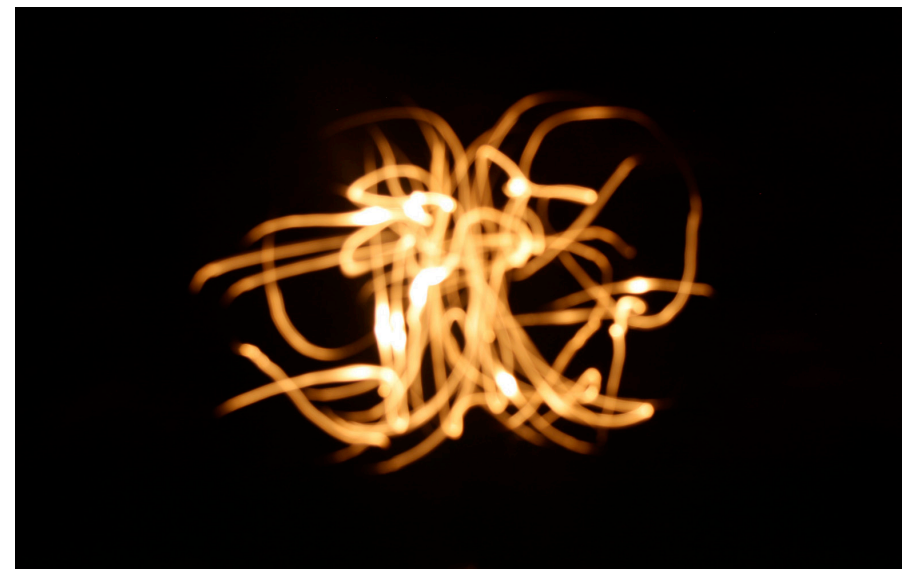


Figure 25. Kristine Brooks and William Minty. Drawing pattern series. 2011. Photography using slow shutter speed. Performed in Rugby Field

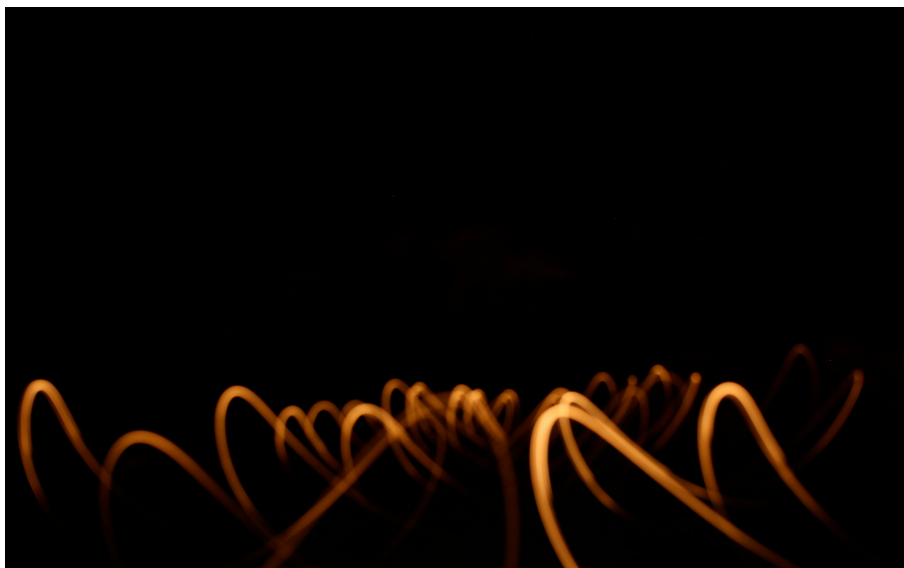


Figure 24. Kristine Brooks and William Minty. Drawing pattern series. 2011. Photography using slow shutter speed. Performed in Rugby Field



Figure 26. Kristine Brooks and William Minty. Drawing pattern series. 2011. Photography using slow shutter speed. Performed in Rugby Field

Out, 2, 3 is the title of my thesis. It is also a command that every girl is taught to say to herself at the start of each movement in the technical drill routine, and any straight marching. The count helps each individual girl to boldly march out in the first three steps.

“Up 2, 3” and “Down 2, 3” is the command for a salute going up and coming down smartly. “Round stand”, “Up stand” and “Down stand” are the commands used when performing an about turn. Action commands such as these are designed to keep your body in control, to simplify and direct your thoughts. It is commanding yourself with an urgency that forces you to act and perform in a certain way. The “Out”, “Up”, “Round”, and “Down” is a call for a *bodily* response first and foremost, and the mind then engages with the following count 2, 3...etc.

If one were to count lazily without action commands, the drill being performed would not be as snappy or have the same impact. It is visualising what you want to achieve with your body and being able to command it with short one-word phrases that makes your body act out first. This technique of training mind and body requires a lot of repetitive practice, rehearsing over and over again until the movement becomes naturalised- the knowledge embodied. The term *embodiment* is one that I find myself returning to many times throughout this thesis.

Repetition, repetition, repetition, repetition. If there is one thing that marching has embedded in me it is repetition. Repeating actions often enough builds memory in the body, making the action feel easy thus becoming second nature. Learning a new marching routine through counts and movement requires the body to engage both mentally and physically. As a result, memory is built faster, as it is stored in two places, making it easier for one to recall the information.

On this the writer Richard Lang, cited by Juhani Pallasmaa in the book *The Eyes of the Skin: Architecture of the senses* states:

A great musician plays himself rather than the instrument, and
a skilful soccer player plays the entity of himself, the other

players and the internalised and embodied field, instead of merely kicking the ball. The player understands where the goal is in a way which is lived rather than known. The mind does not inhabit the playing field but the field is inhabited by a “knowing” body. (Pallasmaa, 1996, p.66)

The choreographical notation shown in Figure 27 used to plan drill routines offers a visual that communicates a series of positions against a given set of measurements. Similarly repeat pattern networks, Figure 28, offer a structure for design motifs to snap into. However both of these visualisations of pattern are static or fixed. Through this work I question how can I breathe life into these motifs, how can these marks convey a sense of movement, and better capture the *experience* of marching?

My first attempts to answer these questions were experiments using a camera with a low shutter speed. In Figure 25 and 26 I stood in a static position moving my upper torso only to see what patterns I could capture.

In Figure 25, where I am facing the camera, gestures become layered, whilst in Figure 26, where I am standing side on, the camera clearly delineates the passage of my arm swings. To further push what other patterns of movement could be revealed, I explored depth through moving away from the camera lens.

In Figure 24 I marched away from the camera in sharp diagonal angles swinging my arms, the receding marks creating a strong sense of depth. A change of perspective in Figure 23 reveals more of the overall journey, but this birds-eye view of my movements are more akin to a traditional notation view, which does not have the sense of depth that is achieved by Figure 24.

What worked with these early trials was that they revealed the transition that is movement. Unlike the fixed isolated end points of notation, these drawings in light connected the dots, tracing the passage of movement between one point and another.

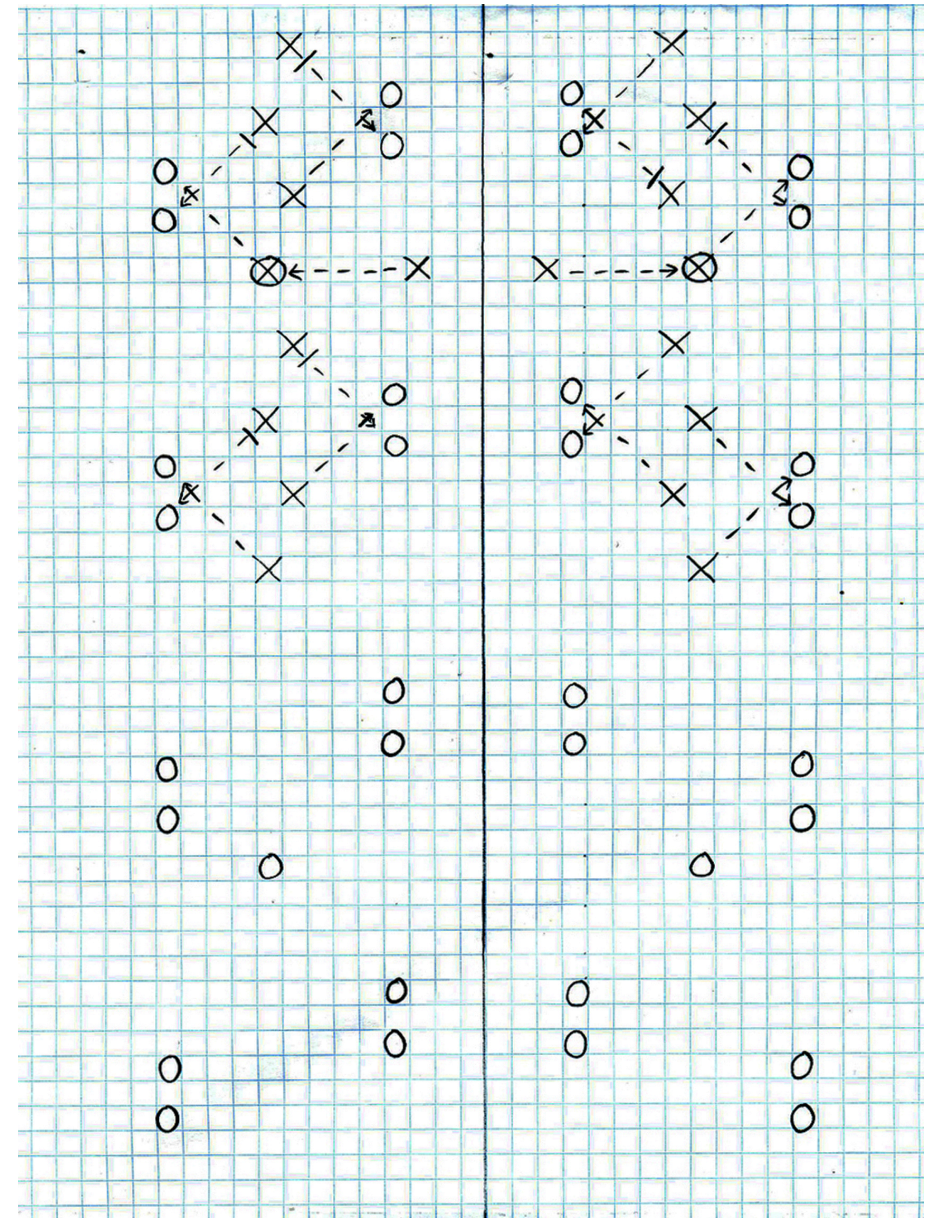


Figure 27. Kristine Brooks. Together We March. 2011.
Still image taken at the Royal Nova Scotia International Tattoo, Kristine second marching girl in from the right.

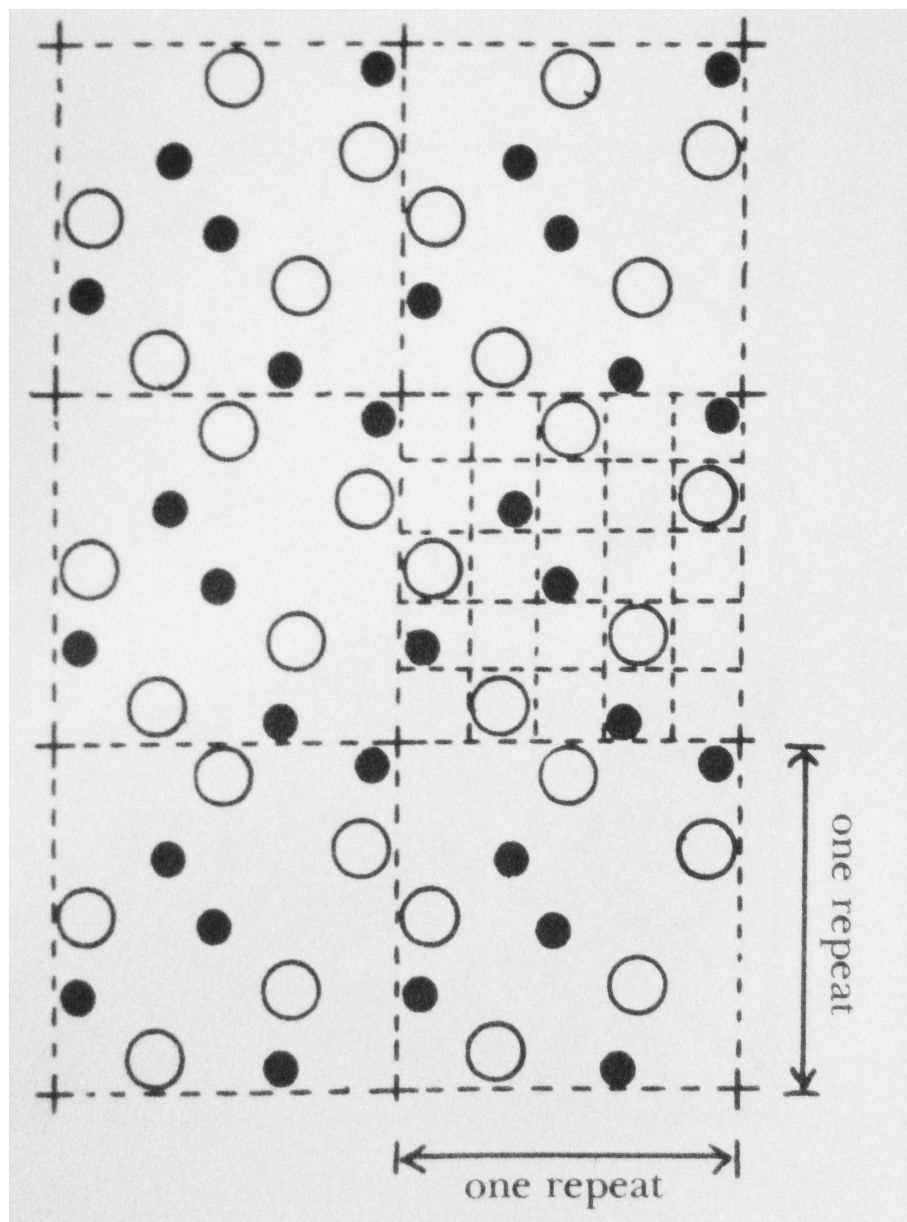


Figure 28. Kristine Brooks. Together We March. 2011.
Still image taken at the Royal Nova Scotia International Tattoo, Kristine second marching girl in from the right.



Figure 29. Kristine Brooks. 2010. Capturing marching girls moving. Mixed media, acrylic paint, graphite and pastel on paper.

This process of drawing with light is an exciting development from my earlier large scale drawings. Through this process I have discovered another way to draw and present the patterns of movements found in marching.

There are a number of artists who have historically used their bodies as mark making tools. The most relevant exemplar must be the inspirational work of the artist performer and choreographer Trisha Brown. As Figures 30 and 32 show Brown uses her body in the act of making marks. Brown's whole body is involved in the drawing act, in stark contrast to more traditional drawing process which originates from the wrist down only.

Taking her lead throughout this project, I have experimented with mark making. I have explored using the weight, speed, direction and pivot of my body through sound, movement and mark.



Figure 30. Simon Little. 2008. Trisha Brown on paper: Tribute to dancer, artist continues. Retrieved 10 April 2011, from http://www.minnpost.com/camillelefevre/2008/04/16/1524/trisha_brown_on_paper_tribute_to_dancer_artist_continues

Figure 31. Trisha Brown. Drawing on Land and Air, Brown, T. Revolution. 2006. Edition: 35. Soft ground etching with relief roll, 25 1/2" x 22" paper size. Retrieved 10 April 2011, from http://www.usfcam.usf.edu/cam/exhibitions/2007_01_Trisha_Brown/Trisha_Brown.html Minnpost.com A Thoughtful Appr



Figure 32. Trisha Brown mark making. Retrieved 10 April 2011, from <http://fartguide.blogspot.com/2007/08/documenta-12-trisha-brown.html>

This light drawing series signals my first attempt to engage with 3D pattern through the mode of photography. Two-dimensional space considers height and width, whereas three-dimensional space considers height, width and depth. After photography I turned to video as a medium to capture the patterns I was creating within each space. Using video added a temporal dimension to my work and enabled me to capture the patterns of movement that unfolded over time.

Figure 34 is a two-dimensional floor plan of the famous Sagrada Familia Cathedral. I chose this image to show that the flat spatial patterns offer an alternative viewpoint of the three-dimensional forms within the space, while creating a differing representation of architectural features such as pillars and the circular shapes that form the cathedral's ceiling. Next to it is the image of the pillars and the ceiling of the basilica in its entire gracious three-dimensional spatial spectacle that I took in 2008, which I moved through and was amazed by. These images show examples of the same space represented in two and three dimensions. Each image communicates the two distinct qualities of how pattern can be represented in two and three-dimensional space. Coming from a textile background, creating flat two-dimensional patterns was what I explored most. This research has opened my eyes to other ways of seeing, representing, and exploring pattern through the different spatial dimensions.

The experience of visualising patterns in a three dimensional form has been unusual. Designing on a single flat plane was easier to deal with, as I feel I have a sense of visual control. Designing pattern in a three-dimensional form by using my body to make the pattern was more difficult, as I was completely immersed in pattern. Not having the visual patterns I was creating immediately in front of me (as I would designing in 2D) required me to trust my knowledge of pattern, follow my instincts and adopt an iterative approach of action reflection and evaluation. However, the process of performing the pattern was a more organic and playful experience, as opposed to the more controlled approach to traditional pattern construction.

According to architect and theorist Juhani Pallasmaa "The dominance of the eye and suppression of the other senses tends to push us into detachment, isolation and exteriority" (Pallasmaa, 1996, p.18). The shift from 2D to 3D pattern construction sees the visual relinquish control of the design process. It is a letting go and following of my body and emotion to create the pattern. This experiential approach encourages me to explore and question how I create patterns within a space through using my body.

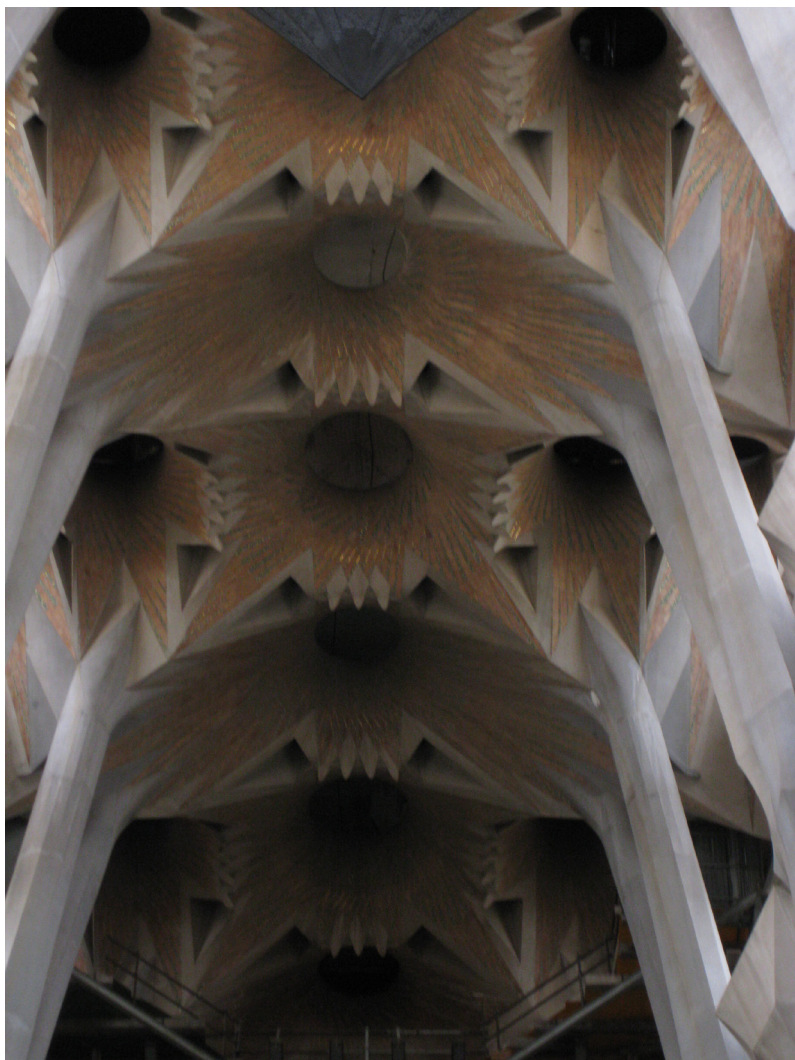


Figure 33. Kristine Brooks. Together We March. 2011.
Still image taken at the Royal Nova Scotia International Tattoo, Kristine second marching girl in from the right.

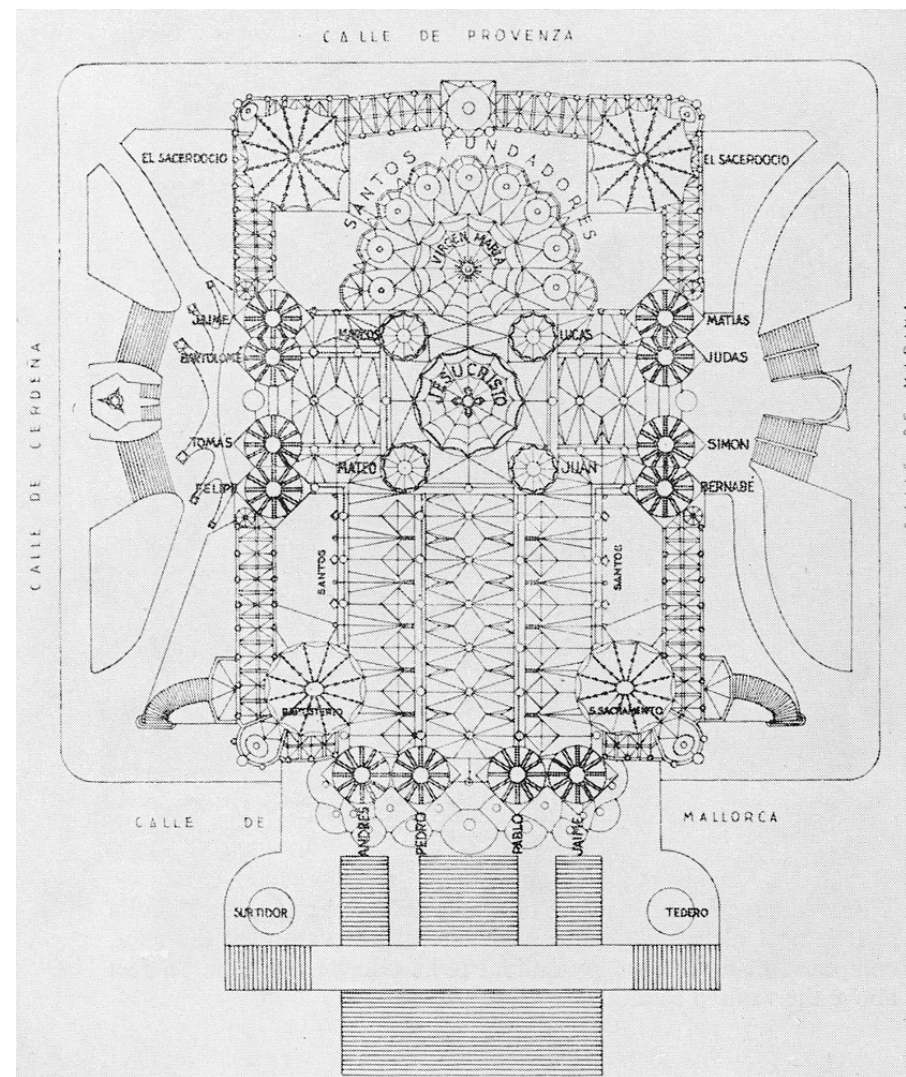


Figure 34. Kristine Brooks. Together We March. 2011.
Still image taken at the Royal Nova Scotia International Tattoo, Kristine second marching girl in from the right.

The Choreography of Battles

There are many ways a marching routine is designed, I am inspired particularly by my coach's technique. My coach, Colleen Pobar, has been designing her own routines longer than I can remember. Colleen has been recognised for her skills in designing precision drill displays in many countries around the world. I have been fortunate enough to perform in six of these international military displays over the last five years. Colleen uses grid paper to map out the design of movements of the routine. Each movement is drawn up by crosses (x) to symbolise each girl's position from the beginning and end of the movement. After working out the movements for the whole routine on paper, she then puts it to test by placing us in the positions in relation to how she has drawn them on paper. The transition of getting to the positions in each movement is where we come together as a team. There will be a certain amount of counts within each movement in relation to the music that we would have to structure our choreography by. The grid is the fundamental structure that keeps the entire routine intact and in cohesion.

The grid is also crucial when constructing a textile repeat pattern; here the design area is carefully drawn up and precisely measured. These measurements are the key guides to stop 'crashing' (an industry term used to describe a failed repeat where units/motifs unintentionally overlap).

Precision is not only a major aspect to repeat pattern design; it is precision that separates a good marching team from a winning marching team. Precision can hide mistakes within a marching team. For example, if you miss your count and do one less or more of a movement (such as a mark time), provided that it is performed with precision, the mistake is less obvious. It's the loss of composure that draws the audience and judges to recognise when a mistake has occurred. A marching team that can perform immaculate precision throughout their drills and routine is a successful marching team.

The uniform and precise field of the grid represents the space of the marching field. Competitive marching is performed in large open spaces, such as rugby parks, outdoor courtyards, sports arenas and indoor halls. This is so the movements in a routine have the space to expand, and to move along the ground. The ground is carefully laid out using discs and tape to mark out boundary lines and the performance course. The discs also act as guidelines for the leader so they know that they are on course. It is important for the team to stay within the boundaries of the field otherwise points get deducted.

The traditional marching space (field) is the battleground in which teams perform their routines against each other. Teams perform the same routines known as the Technical Drill, the Fall-in, and Inspection. Each team is allocated a time slot to perform these phases in this space, which provides a territorial notion.

This is reminiscent of the military battlefield where soldiers have one opportunity to execute their planned battle tactics. Figure 37 shows the battle plan for the Battle of Lutzen (November 6, 1632). This birds-eye view illustrates how a controlled and orderly battle field is set out. This structure is important for the success of each opponent.

The coach, having the control over the movements and structure of a routine, is linked to the military aspect of how an officer or military troop dictates and tells the soldiers what to do. Just like soldiers, marching girls have to obey the coach in order for their performance routine to be successful. However the difference between the military and the sport of marching is that the consequences are not those of life or death.

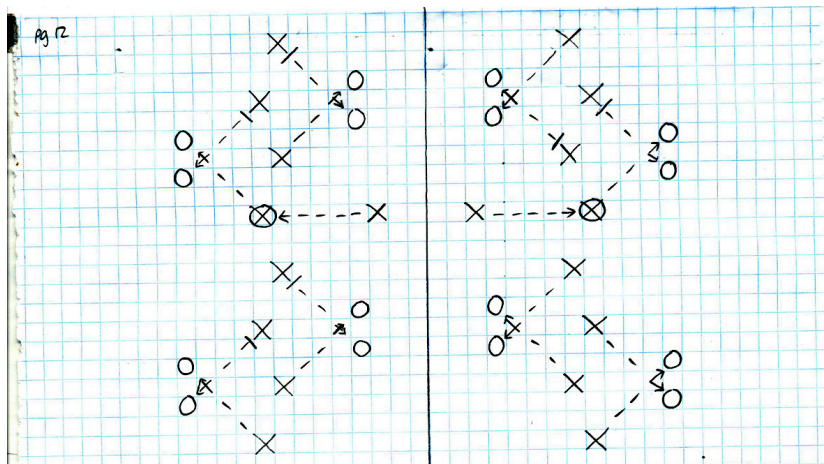


Figure 35 Kristine Brooks. Chorographical notation. 2011.
Hand-drawn on grid paper



Figure 36. Hefford, 2010, p.26 London : Victoria & Albert Museum 2010 Silk design by James Leman. Dated 1718.
Watercolour on paper. 39.5 x 26cm.

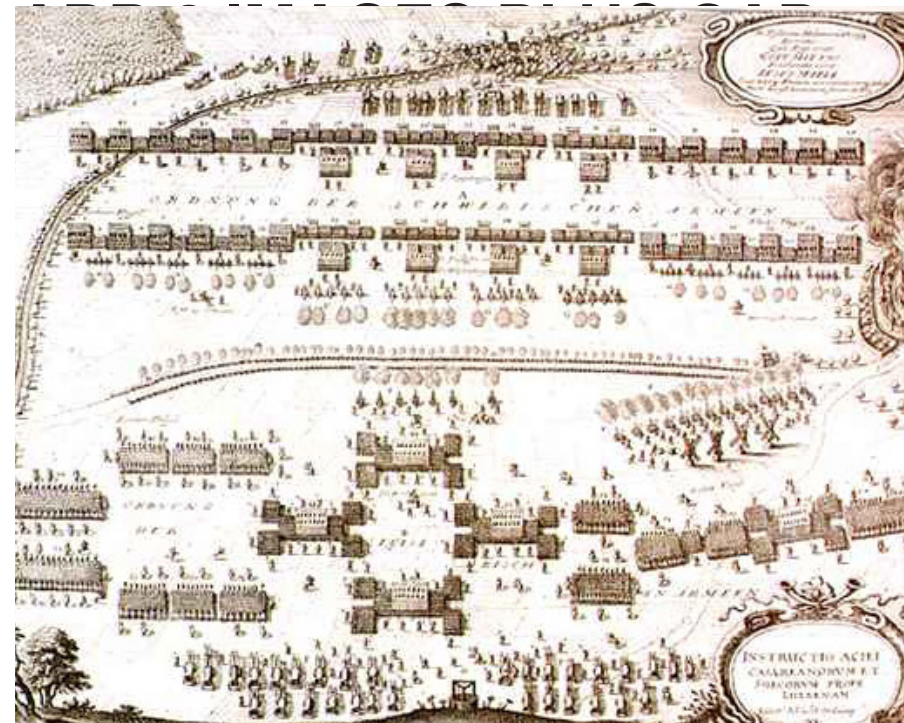


Figure 37. Fortune city. (n.d). Battle of Lutzen. Retrieved 12 June from
<http://www.fortunecity.com/victorian/riley/787/30/war/12.jpg>



Figure 38. Kristine Brooks and Helen Teo. 2011. Space Encounters Architecture/ Reflection/ Space. Massey University foyer entrance. Performers Kristine Brooks and Yanetta Hiko. Video Still.



Figure 39. Kristine Brooks and Helen Teo. 2011. Space Encounters Architecture/ Reflection/ Space. Massey University foyer entrance. Performers Kristine Brooks and Yanetta Hiko. Video Still.



Figure 40. Kristine Brooks and Helen Teo. 2011. Space Encounters Architecture/ Reflection/ Space. Massey University foyer entrance. Performers Kristine Brooks and Yanetta Hiko. Video Still.

Title: Space encounters
Architecture/ reflection/ space
Space: Massey University foyer entrance

The floor surface pattern, the stairs, the symmetrical architecture - it was these qualities that drew me to the first space, located at the front entrance foyer of the Massey University building. The choreography of the performance I subsequently designed was to reflect and interlink with this space, so that the space became part of the performance. I mimicked the variety of directions pointed by the large inlaid motif surface pattern in the centre; I tailored the choreography and marching drills in relation to the mirrored double staircase, and the imposing twelve columns that occupied the space.

The symmetrical element of the space is what inspired me to have another marching member to perform with me; to mimic the symmetrical element the space already had. I specifically chose a member of my marching team, Yanetta Hiko, a close friend who looks very similar to me. Having very similar features was important, so as to achieve the reflective element.

In order to keep in time with each other, we used the tactics we learnt in the sport of marching using counts. To help with the timing, the sound of our footsteps helped us to keep in rhythm and time with each other.

The presence of the museum foyer and the museum building has a grandness to it that reflects and reminds me of the ceremony, status, and power that marching is associated with. Out of all the spaces I have performed in, this space was closest to the spaces marching is usually seen in. Whilst the rigid symmetry was a great space to respond to, I wanted to find a less traditional space to explore.

Pallasmaa eloquently captures the human/ spatial interaction in the following statement:

Stepping stones set in the grass of a garden are images and imprints of footprints. As we open a door, the body weight meets the weight of the door; the legs measure steps as we ascend a stairway; the hand strokes the handrail and the entire body moves diagonally and dramatically through space. (Pallasmaa, 1996, p.63).

“There is...” writes Pallasmaa, “an inherent suggestion of action in images of architecture, the moment of active encounter, or a ‘promise of function’ and purpose,” and he illustrates this with a quotation by Henri Bergson: “The objects which surround my body reflect its possible action upon them.” (Pallasmaa, 1996, p.63).

This quotation illustrates that the way a space is designed instructs the actions of the user. In my work, however, I question the instruction of the architecture and evolve this prompt from its functional and decorative use to inspire creation of moving patterns by using my body. For example, in the university foyer work I high step up the stairs. Although walking up the stairs would normally be considered a functional act inspired by the architecture, in this performance the act transforms the purpose motivated by the buildings design. By high stepping rather than walking I have highlighted the pattern in the architecture through my movement. The change of levels of the stairs inspires the slow body movement of my mark times as I move up and down to exaggerate the different levels.

For the most part, observers will only appreciate the surface pattern centred in the ground as a large decorative image. However the ornamental becomes operational in this performance: the motif on the ground steering the direction we march along, thereby interlinking the static function of the pattern with the moving patterns with our bodies.



Figure 41. Kristine Brooks and Helen Teo, 2011. *Space Encounters Architecture/ Reflection/ Space*. Massey University foyer entrance. Performers Kristine Brooks and Yanetta Hiko. Video Still.

Title: (Re)Measurement of space 2D & 3D recordings

Space: Hotel bathroom

Juhani Pallasmaa wrote that “understanding architectural scale implies the unconscious measuring of the object or the building with one’s body, and of projecting one’s body scheme into the space in question. We feel pleasure and protection when the body discovers its resonance in space. (Pallasmaa, 1996, p.67) This quote captures my experience of space in the (re) Measurement work pictured left. This performance explores space using the (my) body, as a measuring device. The size of this bathroom vanity alcove *exactly* fits the height of my body.

Pallasmaa furthers states:

When experiencing a structure, we unconsciously mimic its configuration with our bones and muscles: the pleasurable animated flow of a piece of music is subconsciously transformed into bodily sensations, the composition of an abstract painting is experienced as tensions in the muscular system, and the structures of a building are unconsciously imitated and comprehended through the skeletal system” (Pallasmaa, 1996, p.67).

It is *unknowingly* he contends that “we perform the task of the column or of the vault with our body. (Pallasmaa, 1996, p.67)

The famous illustration of the *Vitruvian man* Figure 42 created by the great artist Leonardo da Vinci stimulated the engineer and architect Marcus Vitruvius Pollio, to design perfectly proportional architecture. David Bomen (2008) writes in his article ‘*Vitruvius Man*’ underlining the fact that Vitruvius observed the perfect symmetry of the human figure within the space as drawn by Leonardo da Vinci in the confined parameters. Believing that nature had provided the perfect proportions, he used these ideas as a basis for the proportions in his architectural plans. I have interlinked Pollio’s theories with this performance. Thus standardised and idealised measurements normally dictated by the meter rule, are subverted. I effectively re-measured the existing spaces using a non-standard measurement tool; the measurement of my body. By doing so I was able to

resist the geometries imposed by culture and architecture by finding my own rhythms and proportions.

The choreography that I perform within the space tests out the different ways that my body is able to fit within the space, and in this space I find a custom-built space for my performance. By testing out different movement I am able to see the boundaries and restrictions of the space.

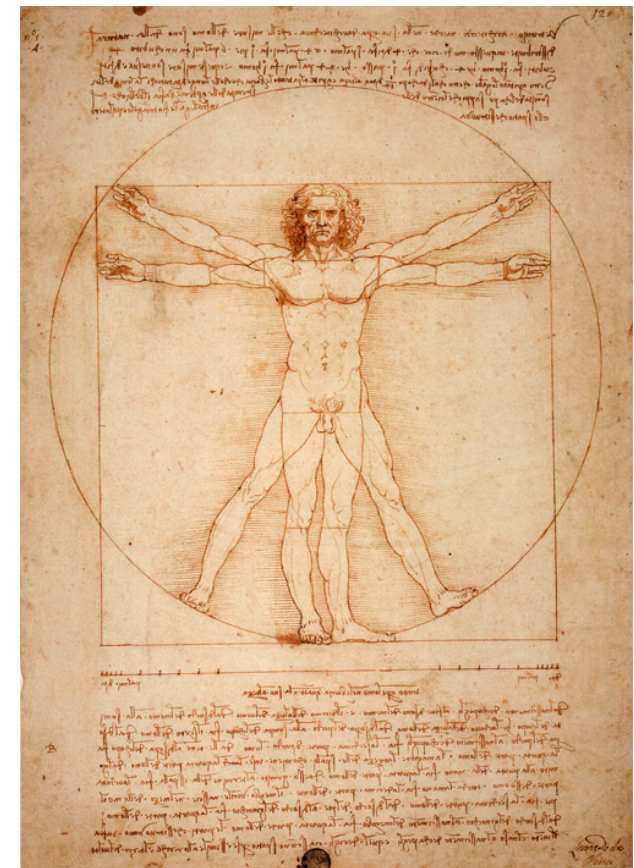


Figure 42. Vitruvian man. (2011, December 11). In Wikipedia, The Free Encyclopedia. Retrieved December 11, 2011, from http://en.wikipedia.org/wiki/Vitruvian_Man

Of course, I am not the first to have explored the creative potential of the relationship between the body and its architectural environment. Here again the work of Trisha Brown sets an inspirational precedent. Most famously her *Roof Piece* where “simple, semaphore-like movement (joint articulation and perpendicular and parallel lines) was continuously transmitted from one dancer to another, each stationed on separate roofs, spanning a nine to twelve block section of New York city.” (Brown, 1975, p.26)

In her article *Three Pieces* Brown writes that “Distance in an interior space is stopped or held by the walls of the room or curtains of the stage unless through illusion the boundaries of the given area are transcended. She compares this to her *Roof Piece* performance which “occupies real distance and the boundaries transcended are those of the viewers eye.” (Brown, 1975, p.26) Brown’s work, which takes place on the normally unseen roof-scape of the city, finds a lovely parallel in the writing of Michel de Certeau. In his text *The Practice of Everyday Life* Michael de Certeau also occupies the upper levels of the city but in contrast to Browns focus de Certeau turns his gaze downwards to the inhabitants at street level - at people walking through the city and as he observes, not recognising the spaces they walk through. De Certeau describes everyday practitioners of the city as living “down below,” below the thresholds at which visibility begins. He describes the bodies as following “the thicks and thins of an urban ‘text’ [that] they write without being able to read it.” (de Certeau, 1984, p.92) It is this idea of being blind to these spaces, that interests me. I use my experience of walking through the city to find forgotten and overlooked areas that I can highlight through my performances. I explore these spaces using my body as an agent to both measure and highlight the overlooked nuances of a given site.

This often sees me transgressing boundaries, occupying space in an unconventional manner. Shortcuts become ‘long-cuts’ in my work. Figure 43 shows me marching right around the pillar instead of getting from point A to point B. Just like Charlie Chapman I have ‘multiplied the possibility’ of that pillar showing how I have gone “beyond the limits that the determinants of

the objects set on its utilisation.” (de Certeau, 1984, p.98)

De Certeau (1984) states that

The walkings of passers-by offers a series of turns, (tours) and detours that can be compared to ‘turns of phrase’ or ‘stylistic figures’. There is a ‘*rhetoric*’ of walking, [where he states], the art of ‘turning’ phrases finds an equivalent in an art of composing a path. Like ordinary language, this art implies and combines styles and uses (de Certeau, 1984, p.100).

He further suggests that “the act of walking is to the urban system what the speech act is to language or to the statements uttered.” (de Certeau, 1984, p.97)



Figure 43. Kristine Brooks. 2011. Marching outside the exterior entrance of the Civic Square lift in Wellington city. Video still.

My understanding of de Certeau's comparison of walking to speech has led me to consider the contrast between walking and marching. De Certeau's description of the city dwellers walking through the city as "a chorus of idle footsteps" (de Certeau, 1984, p. 96) creates a stark contrast to marching. Marching through the city conjures up a much more direct and distinct sound. When marching, one is actively aware of one's movements within the space one inhabits. In direct comparison to the 'idleness' of walking, the sport of Marching is heavily goal-oriented. Marching consists of deliberate motions and is nurtured in a controlled environment, with an awareness of movement, space, and rhythm. When marchers occupy an area, it is theirs and theirs alone, and how they act within this area is informed by their interpretation of it. Walkers by comparison, lack the control of their environment, though it could also be argued that they do not recognize their environment as something of significance.

Continuing to contrast marching and walking, I further believe that acoustically the two motions have many differences. If you consider the combination of movement within a space, each walked or marched step has a unique voice and tone that speaks to and about the environment that this action occurs in. Walking could be considered to be sweet, melodic and calming while marching could be seen to be direct, commanding and strongly structured; it is clear and concise in its statement. It is this comparison between marching and walking that has enabled me to embrace the actions I perform within each space. Having this awareness of my movements creates a confidence and celebration between the environment and myself.



Figure 44. Trisha Brown. 1970. Walking on the Wall. Photo taken by Caroline Goodden.
Retrieved 9 April 2011 from <http://spacepr.blogspot.com/2008/06/outside-walls-human-fly-trisha-brown.html>



Figure 45. Kristine Brooks & Hannah Huong. 2011. Exploring exit/entrance space of lift.. Civic Square lift in Wellington City. Video still.



Figure 46. Kristine & Darwin Brooks. 2011. Mark time in changing room interior. Retail fashion shop. Video still. taken from video



Figure 47. Kristine Brooks & Hannah Huong. 2011. Mirroring decorative floor surface. Wellington City Museum entrance. Video still.



Figure 48. Kristine Brooks. 2011. Moving as One. Lambton Quay inner-city lift, Wellington. Video still.

Title: Vertical spaces
Video/ pattern/ movement
Space: Lambton Quay inner-city public lift

This lift work was one of the initial performances, where I explored choreography in a moving background. My aim was to reflect the movement of the lift with my body.

In textile design patterns are created on a flat horizontal space that is *fixed*. In contrast with this performance I have explored pattern in a three-dimensional vertical space that is *moving*.

I was drawn to the transparent box like nature of the lift which allowed me to see through it. I was excited by the potential of vertical movement over a changing backdrop. I highlighted the vertical motion of the lift with opposing arm movements. Reflecting on this performance what I found to work was the sense that the city-scape, the lift, and I were performing as one together. Though the downfall of this performance was the short distance the lift had to travel to get to the bottom, this being the nature of the particular space, it opened my eyes to the new opportunities to form patterns considering the exterior (structure), and interior (spaces) of a moving vessel and myself.

These new ideas have been explored in Figure 49, where I repeated the video sequence into simple full-drop repeat structure. The small space and the need to hold the camera sees my own movements restricted in this work. Instead, movement is provided by the smooth transition from floor to floor by the lift. The image of the lift cutting through the vertical layers of the interior is repeated twelve times and this vertical and horizontal repetition has the effect of abstracting the environment into blocks of colour and shape.

The fact that each sequence moves and interlinks with the other made it more interesting to play with. It is like designing multiple patterns at the same time. By creating a pattern with the video footage, other patterns were formed through the shapes and movements interconnecting. This is the only work that has been ‘finished’ post-production, and while this doctoring of the image may lack the integrity of some of the other works, it points to some interesting propositions for the future.



Figure 49. Kristine Brooks. 2011. Layering Pattern. Interior of a Wellington city lift. Video experiment manipulated into a full-drop repeat pattern. Video still from experiment.



Figure 50. Kristine Brooks. 2011. Infinity reflection/ colour/ space/ depth. Massey University lift interior. Video still.

Title: Infinity
Reflection/ colour/ space/ depth
Space: Massey University lift interior

In marching, 'reflection' is known as an 'opposite' (person), who performs the same routine but in a reflective manner. Reflection is a key element in the routines designed by many coaches, such as Colleen Pobar, whose routine has been seen in Figure 51. The reflecting sides create a visual balance. Each girl in the routine has a partner who performs the same actions, but in reverse. Having a partner perform the reverse (round about 30m away) of what you do in a routine is like watching a mirror version of yourself.

In this performance I have taken the idea of reflection literally by choosing a mirrored interior lift space to explore reflection. Instead of creating an army of individuals such as a marching team or a military battalion, I have used myself as the repeating unit through which to create pattern, thus the reflected image of myself creates an *army* of myself.

The military tactic of conditioning each individual to be exactly the same can be seen in the sport of marching. To be completely synchronised and to work as one unit is the ultimate goal. To achieve this each individual must think, train, and look identical. Synchronisation in marching is the act of moving, training, and thinking the same. It is having the exact counts that keep everybody together, and learning the same techniques and skills for each movement to achieve this.



Figure 51. Kristine Brooks. 2011. Still shot taken from video recording of performance at the Nova Scotia Military Tattoo.

As a marching girl, the experience verges on being a machine, no character, no flaws, no past experiences, just an empty unit, ready to be programmed to perform, move and act in a certain way. I have in this lift work responded to the machine-like reality of marching, by celebrating the self rather than suppressing it.

Art critic and theorist, Rosalinde E. Krauss write:

Mirror reflection implies the vanquishing of separateness. Its inherent movement is toward fusion. The self and its reflected image are of course literally separate. But the agency of reflection is a mode of appropriation, of an illusionistic erasure of the difference between subject and object. Facing mirrors on opposite walls squeeze out the real space between them (Krauss, 2010, p.11).



Figure 52. Hariman. 2009. China marching into the Twentieth Century. Retrieved from <http://www.nocaptionneeded.com/2009/10/china-marching-into-the-twentieth-century/>

With the mirrors on opposing sides and myself in the centre I have applied my interpretation of Krauss's idea to explain the space that has been flattened in the reflection. Although my image has been 'squeezed out' reflected in the mirror before me, I use the camera angle to create an infinity pattern of never-ending space. It is the continuation of the viewpoint I have used to accentuate the difference between me as the subject and the reflection of my image as the object which as a result grew to become a repetitive pattern.

Colour is the first thing that is recognised in a surface pattern, and the use of colour is a crucial factor in any textile design. Using opposite colours and tonal values such as dark versus light or saturated versus de-saturated hues, are techniques to create contrast within a surface pattern design.

Contrasting colours in textile design can be used to highlight and exaggerate different parts of the pattern. In my lift performance I have consciously engaged with colour. In this work I am the motif/unit, I am the yellow wedge driven between the flat grey background; I act as an accent and an infill, to accentuate depth.

Often textile surface patterns use colour to create optical illusions, i.e. to make patterns look three-dimensional through the use of colour and scale.

Colour in space can create a powerful visual impact. "There is a direct relationship between colour and a visual impression of depth, or pictorial space. Colours have an innate advancing and receding quality because of slight muscular reactions in our eyes as we focus on different colours." (Lauer & Pentak, 2008, p.272) It is the hues against the background used, which creates the receding and advancing effect.



C-29. The leaf colors in this first exercise are dark and dominant. There's little contrast in the flower forms either.



C-30. Here the two leaf colors have greater contrast for depth, and the flowers are warmer, more intense to balance the leaves.



C-31. Even more color contrast between motifs, giving a closer association with the white background.



C-32. This shows how a darker, less intense background will fall back creating a greater feeling of depth, if this is desired.



C-33. On a cool ground, the warm, intense flowers pop right off the surface.



C-34. By adding a little of their complimentary colors to each, the flowers have lost their intensity and are darker in value.



C-35. Even on a warm ground, the intensity and warmth of the flowers brings them forward.



C-36. The leaves now appear in the warm colors, reducing the importance of the flowers. With so much of the surface in warm colors, the little cool green flowers have little impact.

Figure 53. Colour effects Waterman, V.A. 1984. Surface Pattern: a handbook of how to create decorative and repeat patterns for designers and students. New York, MA: Hastings House Publishers



Figure 54. Kristine Brooks. 2011. Infinity. Video stills put into pattern



Figure 55. Kristine Brooks. 2011. Operation reflection reflective surfaces / symmetry . Hotel Bathroom. Video stil.

Title: Operation Reflection
Reflective surfaces/ symmetry
Space: Hotel bathroom

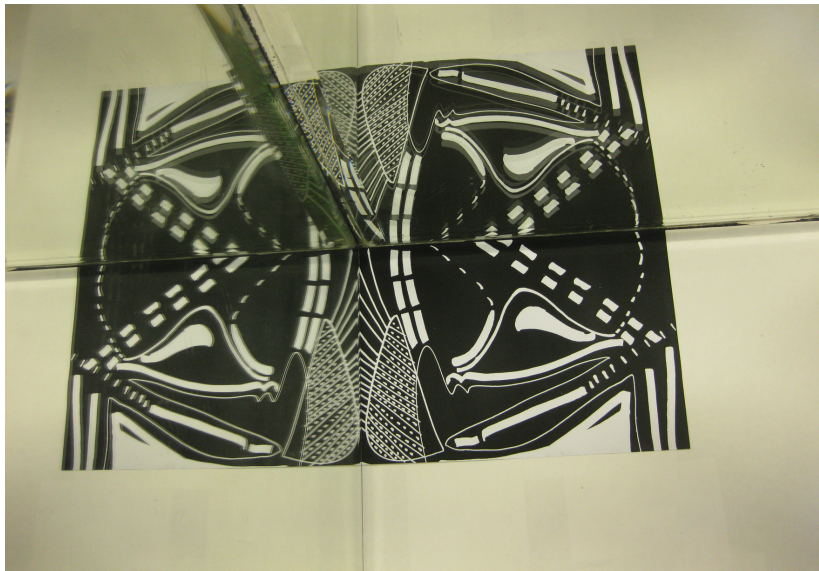
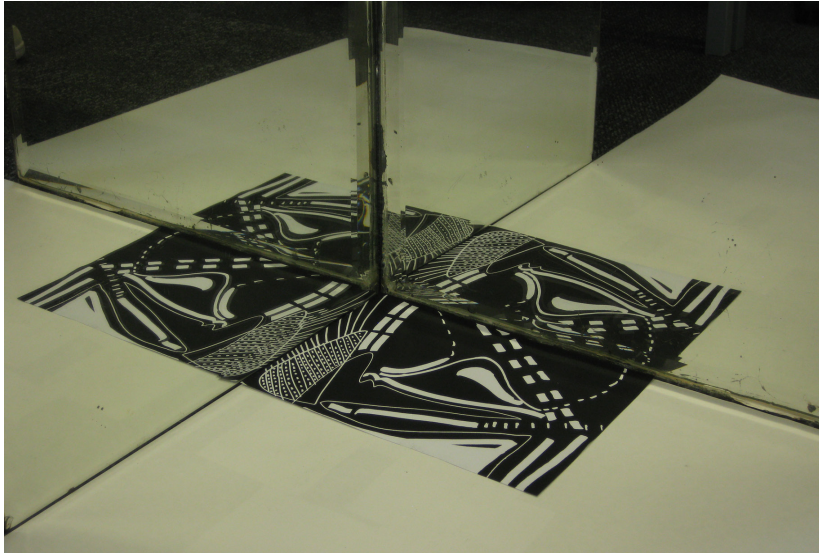


Figure 56. Kristine Brooks. 2011. Hand drawn. Black felt tip pen on paper.
In textile design, a reflection tool which uses a 90 degree mirrored right angle to visualise what a unit/motif would look like reflected, creates fast and quick patterns. This can result in very controlled, ordered and predictable surface repeat patterns often used in scarf designs.

My occupation of this hotel bathroom space responds to the site's dimensions (to be discussed later) and the material qualities.

The dominant material of the space is the ceramic tiles, which line both the floor and all the walls. The polished surface of the tiled ceramic, and the positioning of the camera onto the wall redirects the gaze away from the mirror where the attention would normally be drawn to.

The method of filming through a blurry lens was a tactic used to redirect the viewer's attention. It provided a way for me to motivate the viewer to look beyond the obvious mirror reflection onto a more subtle interest of the tiled surface.

The choreography performed in this space explored the spatial dimensions by using different drills and arm movements. I used trial and error to see what worked within the space, considering both the choreography and the repetition of each movement, to create a pattern within that space.

Symmetry

Using symmetry to create a pattern can give a very ordered and static look. David Lauer and Stephen Pentak (2008) refer to this idea as Formal balance (p.95). The effects of creating a symmetrical pattern can be visually striking: there is strength and beauty in seeing something symmetrical.

Friendenberg & Roesch writers of *1,001 Symmetrical Patterns Book & CD* (2010) explain that there are “three primary symmetry operations” (p.6), these being translation, reflection and rotation. Here I will discuss each symmetry operation with regards to pattern, with accompanying images.

Translation is when you take a motif/ unit and move it along a straight line as shown in Figure 57. Reflection is a mirror image of the unit / motif as shown in Figure 58.

Rotation is a repeated movement of the unit/motif around a centred point. The effects often made by using the rotation symmetry remind me of the kaleidoscope. Figure 58 uses rotation and reflection as a device to create a surface pattern.

Each of these operations is used in textile design to create different effects and assist with pattern structure and image creation.

The Figure 59 is a diagram of how a ‘backwards crossover’ moves looking at it from a birds-eye view. Like Figure 60, an image of a textile design pattern, it is evident that there are strong similarities in the patterns formed using symmetry. I marked out a centre line in the diagram as it is heavily relied on as a guide for each girl to reach at a certain count, as well as to keep the routine centred on the performance ground.

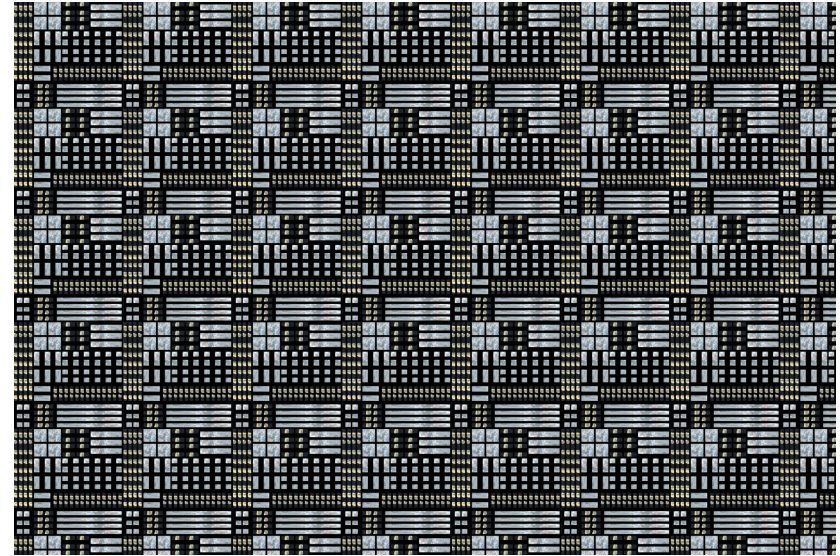


Figure 57. Krstine Brooks. 2010. Translation pattern

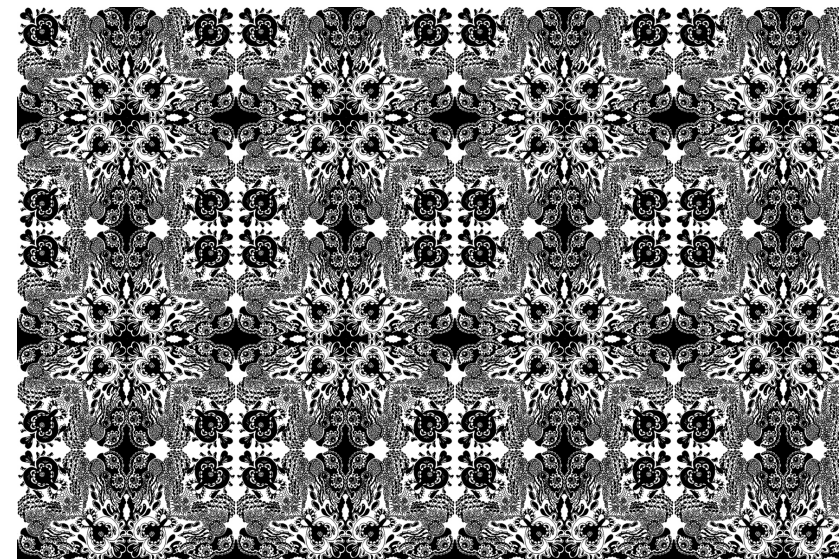


Figure 58: Kristine Brooks. 2010. Rotation pattern

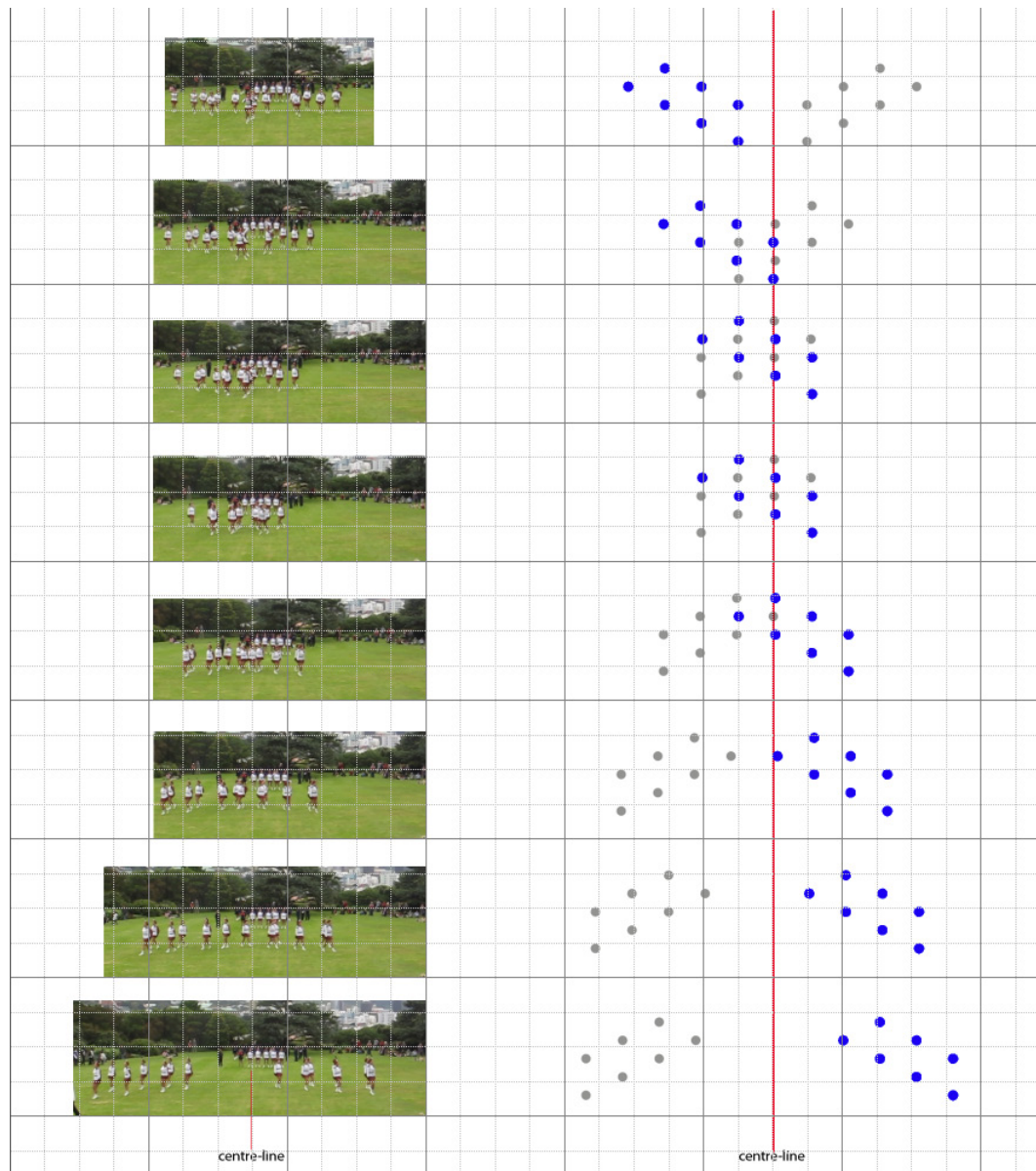


Figure 59. Kristine Brooks. 2011. Diagram of backwards crossover.

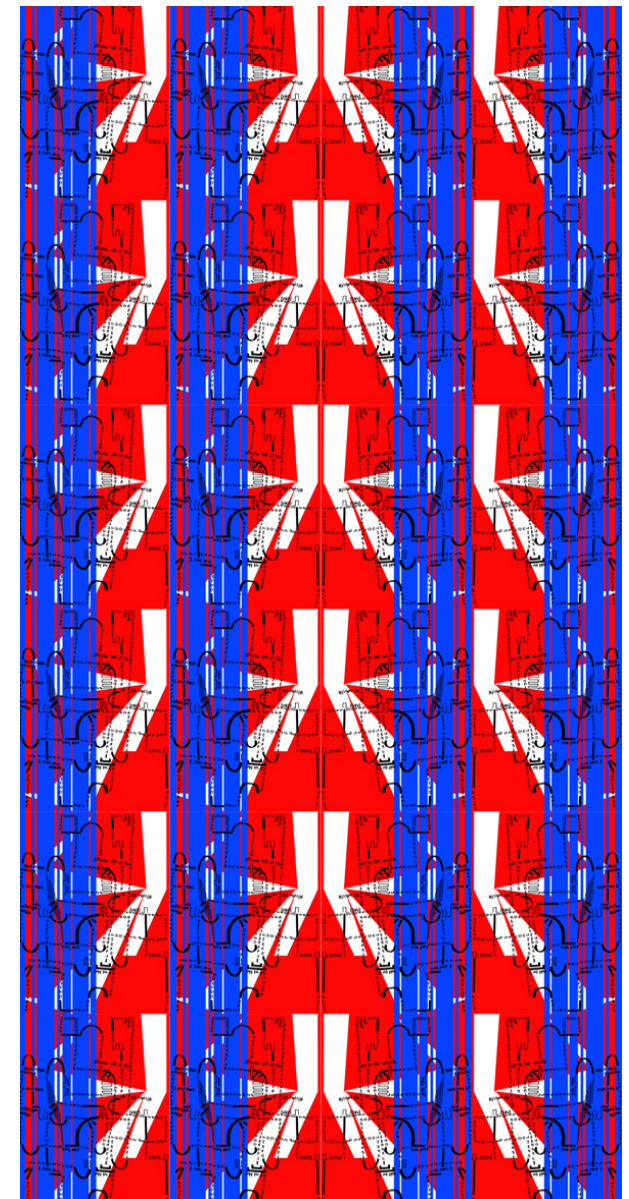


Figure 60. Kristine Brooks. 2011. Reflection pattern. Mixed media, hand drawn and digitally created.



Figure 61. Kristine Brooks. 2011. Army of self, repetition/ reflection/ sound. . Hotel Bathroom. Video still.

Title: Army of the self
Repetition/ reflection
Space: Hotel bathroom

The hotel bathroom site provided three large mirrors connected to each other which enabled me to create a multidirectional, reflective, infinite pattern of myself. This effect is called the *mise en abyme* effect, and according to Patricia M. Lawlor's article of Lautreamont, Modernism, and the function of *Mise en Abyme* (1985), can be dated back to ancient Egyptian painting.

According to Professor and writer Neil Hertz:

There is no term in English for what French critics call *mise en abyme* (sic) a casting into the abyss - but the effect itself is familiar enough: an illusion of infinite regress can be created by a writer or painter by incorporating within his own work a work that duplicates in miniature the larger structure, setting up an apparently unending metonymic series. (Lawlor, 1985, p.144)

It is, she states a tool that relies on the artist to be aware of his or her own process as well as to critically evaluate the self through the process. In this performance, *mise en abyme* is expressed visually through the infinite repetition of me reflected through the mirrors, but, armed with Lawlor's description, I would posit that *mise en abyme* extends beyond the visual in my work. It also extends to embrace my process, which sees me watching myself, filming myself, reflecting myself in a video feedback loop.

Lawlor discusses the *mise en abyme* technique as having "functions to transcend and even abolish restrictions of time and space, to render the invisible visible, and to render the past and future present." (Lawlor. 1985, p.2) This is parallel with my process of creating this performance. As performance is a time-based action the whole performing act itself becomes a moment captured in time, making it feel like time too is infinite by the pattern of myself being endlessly repeated.

The close circumference while performing within this space made me feel like I was marching in complete synchronicity with someone else; though I knew it was only myself, and I knew that whatever I did, the image of myself would follow through my reflection.

In contrast to these single performances, when performing in a team one experiences more pressure to (a) remember counts, and (b) perform the choreography and routine created by someone else. In my solo performance, I still have an expectation of myself to perform with precision and control. But the choreography and drills are freer as it is only me who has to perform and perfect them.

Historian, professor and writer William Hardy McNeil in his examination of group dynamics observes:

...as the dancer loses himself in the dance, as he becomes absorbed in the unified community, he reaches a state of elation in which he feels himself filled with energy or force immediately beyond his ordinary state, and so finds himself able to perform prodigies of exertion (McNeil, 1995, p.8).

Similarly through performing, I too experience this state of elation in marching. Through our shared experiences, performances, and the close relationships between each performer, the energy is heightened.

McNeill (1995) defines this feeling as "boundary loss" as "the submergence of self in the flow" He suggests that boundary loss is the individual, and "feeling they are one" is the collective way of looking at the same thing: a blurring of self-awareness and the heightening of solidarity between all who share in the experience.

This sense of shared ecstatic experience is most commonly achieved at large sporting events and music concerts. Marching and music have a strong relationship with one another, as it is the beat and rhythm of the music that is key to keep the marching team synchronised and together, especially if it is a large team.

Brandon LaBelle author of the chapter 'Street Noise on the contours and politics of public sound', in the book *Performance design* (2008) states: "the rhythmic pulsing of marching in time and collectively, within the framework of a musical work, composes both sound and the body into a larger system." (p.171) Although I recognize truth in LaBelle's statement, I question through my performances the necessity of a marching band to create rhythm and beat. I explore ways to create my own marching chorus with my feet, using the sounds of each drill against an array of surfaces in various urban environments.

LaBelle states "reverberant spaces of cities emblazon the marching band with added fervour, granting the expression of territorial occupation." (LaBellep.171)

The idea that LaBelle puts forward of marching and music as a muscular force like marching through the city streets like a powerhouse ready to attack, is partly what inspired me to march around in different spaces of the city. However, instead of having the negative connotations of protest rallies or military shows of might, I wanted to tap into the positive aspects of marching - parades mardi gras - a celebratory exploration and sounding out of the spaces and patterns of the city.



Figure 62. Youtube- Lochiel Marching Team am Basel Tattoo. 2007. Retrieved from <http://www.youtube.com/watch?v=RSSKgoCPmVY>



Figure 63. Youtube- Lochiel Marching Team am Basel Tattoo. 2007. Retrieved from <http://www.youtube.com/watch?v=RSSKgoCPmVY>



Figure 64. Youtube- Lochiel Marching Team am Basel Tattoo. 2007. Retrieved from <http://www.youtube.com/watch?v=RSSKgoCPmVY>

Textiles, marching, marching, textiles...

The aim of this Masters of Design thesis was to bring together two passions in my life, textile design and marching. In the process of doing this I have pushed the definitions/boundaries of these two art forms to their very limits – actually I propose that I have broken through them, to create a new way of visualising pattern. To do this initially I set about using elements from textile design. The first element I employed was that of the motif. I decided to take the traditional flat two-dimensional static definition of a motif further, exploring the idea of a three dimensionality.

Initially curious about the notation of pattern within the realm of marching and textile pattern construction, I explored alternate ways to accomplish a combination of both through drawing. Drawing with light offered an opportunity to explore what patterns could be created by combining marching movements, light, and long-exposures using a camera. I was able to create “drawings” which tested new ways of notating, documenting and translating movement, from two-dimensional imagery to three-dimensional moving images. These experiments highlighted the transition of a movement capturing the passage from point-to-point compared with the static nature of isolated points as used in traditional notation. I realised that the introduction of new media – (video) into my practice meant that I was now creating moving patterns in four dimensions through the introduction of time into my design process.

It is worth remembering that each approach to notation aimed to create an understanding of space, and it is my belief that a space can only be fully realised when its boundaries can be comprehended. When I first began this project I understood the boundaries of space in textile design to be the parameters of the blank page, but these parameters were later challenged as I delved into the conception of three and four dimensional pattern and significance of boundaries in marching and textile design.

One prevalent tool for pattern creation is the grid. I identified the grid structure as essential in both textile design and marching as it helps to bring order whilst controlling the boundaries of the design. Understanding how grid structures are used as a tool for composing patterns in textile design and in routine construction in marching, has allowed me to see and set my own boundaries and plan tactics in accordance to each space I have chosen to perform in.

Traditionally the boundaries of marching are large-scale, and most performances take place in fields, stadiums, and open spaces. I’ve realised how significant scale, surface and architectural patterns have come to be in my incorporation of both disciplines, while recognizing the potential they have to create something new when manipulated.

By engaging with small overlooked spaces around the city, I was able to demonstrate and explore pattern creation through varying applications of textile design methodologies including repetition 90 degree mirror reflection, consideration of material surfaces and complementary colour and tonal contrasting. Through each experiment a mix of elements have been combined to test each space. It is the mixing and matching of the elements performed within each designated area that reflects the design process of creating a successful pattern. By applying these elements and processes from textile design and incorporating a different media, such as video, I was able to record and capture the various patterns of movement.

It was through the act of embodying the pattern that I had become both the creator and subject matter simultaneously. Using my body as a motif in these patterns meant the designs became performance process pieces that drew upon my background in both textile design and marching. Using my body I established methods to investigate and understand the dimensions of different environments. In measuring and moving through the area I became immersed with the architectural features of the space, in doing so forming a contrast to the separation and distancing implicit in the standardized rules of normal measurement. Ultimately, this approach worked to humanize the

creation of three-dimensional patterns, each tailor-made for its respective location.

Influenced by the writings of Trisha Brown and Michael de Certeau, I developed my own perspective of the interior cityscape, becoming more conscious of the everyday locales, I began to rediscover the unnoticed or often disregarded areas within our urban environment. Now that I was more aware, I could see the opportunity that each location offered, and it was these unique location-based characteristics that I began to highlight through each of my performances. By reversing the choreographical control that the city exerts as noted by de Certeau the dialogue of my marching takes control.

This redefinition of space, and the use of my body as an agent to both measure and emphasize overlooked nuances of sites led me to occupy spaces in an often unconventional manner performing 'mark time' drills on a vanity bench, 'goose stepping' through water features, and executing 'about turns' in changing rooms.

Through this process I learnt how to look at each space with the same critical eye employed in textile design, hence the material character of each site becomes as important as the material surface in textiles. Use of reflective surfaces became a key aspect of my work. By seeing the opportunity of the reflective qualities, I was able to successfully replicate the effect of mise en abyme. The outcome of which presents the viewer with multiple images of me, an army of one that appears to be an army of many. This worked to celebrate myself as well as the materiality of each interior, these materials allowing me to create pattern that utilizes and communicates its setting as significantly as it does its own design.

Due to my experience in textile design I had prior knowledge about material surfaces, but these explorations within space have radically expanded my material repertoire and made me keenly aware of the material qualities in my environment. These investigations have also led me to discover new

methods, and even new toolsets (for example, sound), that allow me to create pattern in a variety of alternative ways.

Throughout this project, I aimed to redefine what textile design is and what it can be, and from this came a need to justify my project's position beneath the umbrella of textile design. Although the final result is not "traditional textiles", the same elements of space, colour, the motif, and the principles of movement, repetition and reflection have all derived from the discipline and have been utilised in the creation of these designs. Through different combinations of elements each investigation has allowed me to experience a new way to reconnect with the often-ignored spaces within our urban environment, and breathe life into traditional disciplines by reinterpreting their definition, transgressing rather than acting in accordance with pre-existing genre boundaries.

In hindsight, I have realised that the work became a collaboration between the space and myself. By creating pattern through movement within a space, I am better able to call attention to its form, and acknowledge the significance of the architectural elements that the space comprised of. By embodying pattern within the space, I have interacted and conversed with the location on multiple levels.

I have created a new form of looking, visualising and constructing pattern. One that goes beyond surface pattern decoration as an afterthought – here pattern forms the crucial structure. In this body of work the ornament becomes operational. I have created an array of patterns built upon sound, movement, shape, time; elements traditionally absent from the field of pattern design.

I look forward to continuing my research development, as there are still many sites yet to be patterned by my marching feet.

Bibliography

APA referencing style

Anilcp. (2007). *Amazing AD ~ People Choreography and floor art*.

Retrieved from <http://www.youtube.com/watch?v=7LHeiRo8Yu4>

Alexander, C. S., Ishikawa, M., Silverstein, M., Jacobson, I., Fiksdahl-King, & Angel, S. (1977). *A pattern language: towns, buildings, construction*. New York, MA: Oxford University Press

Bonami, F. M., Frisa, & Tonchi, S. (2000). *Uniform: Order and Disorder*. Milano, Edizioni Charta.

Bowman, D. (2008). *Vitruvian Man*. Retrieved from <http://www.aiwaz.net/vitruvian-man/a6>

Brown, T., (1975). *Three Pieces*. *The Drama Review: TDR*, 19(1), pp. 26-32
Retrieved from <http://www.jstor.org/stable/1144964>

Cancienne, M., Snober, Celeste., (2003). *Writing Rhythm: Movement as Method, Qualitative Inquiry*, 9(2), 237-253. Retrieved from <http://qix.sagepub.com/content/9/2/237.full.pdf+html>

Certeau, M. D.(1984). *The Practice of Everyday Life*. Berkeley, MA: University of California Press.

Collier, B.J., Bide, M.J., & Tortora, P.G. (2009). *Understanding textile* (7thed.). Ohio, MA: Pearson Prentice Hall

Collingwood, P. (1987). *Textile and weaving structures: a source book for makers and designers*. London, United Kingdom: Batsford Ltd

Cowan, M.,(2007). *The Heart Machine: "Rhythm" and Body in Weimar Film Fritz Lang's Metropolis 1*, *Modernism/modernity*, 14(2), 225-248. Retrieved from <http://muse.jhu.edu/journals/mod/summary/v014/14.2cowan.html>

CUSTOMS, COURTESIES CRUCIAL TO MISSION SUCCESS. April 12, 2011 pNA States News Service. , p.NA.

Doty, J., & Tenace, S. (Jan 2009). *What goes on in theatre stays in theatre?*. *Army*. , 59,1. p.25(2). Retrieved May 05, 2011, from Academic

Eichenbaum, R., (2004). *Masters of movement: portraits of America's great choreographers*. Washington. Smithsonian Books.

Hefford. (2010). *British Textiles. 1700 to the present*. London : Victoria & Albert Museum

Hanson, V. D. (Annual 1996). *Discipline. The Reader's Companion to Military History*. , (p.NA). Houghton Mifflin Harcourt Publishing Company.

Hendricks, G., (1975). *Eadward Muybridge: the father of the motion Picture*. Toronto, General Publishing Company.

Hopps, W., Rauschenberg, R., Davidson, S., & Brown, T. (1997). *Robert Rauschenberg : a retrospective /* Walter Hopps and Susan Davidson ; with essays by Trisha Brown ... [et al.]. New York : Guggenheim Museum, c1997. Retrieved from Massey University Library Catalogue database.

jayleo82.(2007). *Amazing Choreography*. Retrieved from <http://www.youtube.com/watch?v=OPaLPxdZ-iU>

kdd121s. (2006). *Wassily Kandinsky 2D Animation*. Retrieved from <http://www.youtube.com/watch?v=tHFJCS4Q9xk>

Kiely, O. (2010). *Pattern*. London, United Kingdom: Conran Octopus Ltd

Koumis, M. (2009). *Art textiles of the world*. Canada: Telos Art Pub

Krauss, R.E., (2010). *Perpetual Inventory*. London, The MIT Press

Kraft, K. (2004). *Textile Patterns and Their Epistemological Functions*. *Textile: The Journal of Cloth & Culture*, 2(3), 274-289. Retrieved from EBSCO host.
Labelle, B., (n.d). Brandon Labelle. Retrieved from <http://www.brandonlabelle.net/biography.html>

LaBelle, B. (2008). Street Noise on the contours and politics of public sound. In D.Hannah & O. Harslof (Eds.), *Performance Design* (pp.150-177). Denmark, Narayana Press.

Lauer, D.A., & Pentak, S.(2005). *Design Basics*. (7th Ed). Belmont, MA: Wadsworth Thomson learning

Lawlor, P. M. (May 1985). Lautreamont, Modernism, and the function of Mise en Abyme. *The French Review*. 58,6.p.827-834. Retrieved November 16, 2011

Louppe, L., (1994). *Traces of Dance: Drawings and Notations of Choreographers*, Paris, Editions Dis Voir

Luck881.(2008). *Increibles coreografias de estos policias italianos*. Retrieved from <http://www.youtube.com/watch?v=8rYRc9jFNY4>

MANGAN, J. (May 2001). ARMY SECRETS TO GOOD DISCIPLINE. *Christian Parenting Today*. ,13, 5. p.34. Retrieved May 05, 2011.

Marcalo, Dr R., (2009). Failing to do without: writing as classical documentation of post- classical choreographic documentation, *Journal of Writing in Creative Practice*, 2(1),105-116.

Marching New Zealand. (2006).*Disciplines In Marching New Zealand*. Retrieved from <http://www.marching.co.nz/disciplines.html>.

Marching New Zealand. (2006).*History*. Retrieved from <http://www.marching.co.nz/history.html>.

Marching New Zealand. (2006).*The Organisation*. Retrieved from <http://www.marching.co.nz/about.html>.

McNamara, A., Snelling, P. (1995). *Design and Practice for printed Textiles*. Melbourne, Australia: Oxford University Press

McNeill, W. H., (Annual 1996). Drill/Marching. *The Reader's Companion to Military History*. , (p.NA). Houghton Mifflin Harcourt Publishing Company.

Meller, S., Elffers, J. (1991). *Textile designs: 200 years of patterns for printed fabrics arranged by motif, colour, period and design*. London: Thames & Hudson

monhan85in.(2008).Amazing funny TV Commercial - Talk Talk. Retrieved from <http://www.youtube.com/watch?v=VcQlwbvGRKU>

Macdonald, C. (2007) Moving in Unison, Dressing in Uniform: Stepping Out in Style with Marching Teams, In B. Labrum., F. McKergrow., & S. Gibson. (Eds.), *Looking flash : clothing in Aotearoa New Zealand* (pp. 186-206). Auckland, New Zealand: Auckland University Press.

Mueller, J. (Oct 22, 1995). *From Two-Step to Goose Step*. The New York Times Book Review. , p.NA. Retrieved May 05, 2011.

Proctor, R.M., & Lew, J.F.(1984). *Surface Design for fabric*. Seattle, MA: University of Washington Press.

Payne, Basil. (April 2011). CUSTOMS, COURTESIES CRUCIAL TO MISSION SUCCESS. p.NAStates News Service. , p.NA. Retrieved May 05, 2011.

Shkurti, W J (June 2008). *A minor rebellion*. Vietnam. , 21,1. p.50(6). Retrieved May 05, 2011.

Solnit, R. (2003). *Motion Studies Time: Time, Space and Eadward Muybridge*. London, Bloomsbury Publishers.

Thittichai, K. (2009). *Experimental textiles: a journey through design, interpretation*. London, United Kingdom: Batsford Ltd

Volkov, I (March-April 2002). *What is the essence of military discipline?*. *Military Thought*. ,11, 2. p.118(5). Retrieved May 05, 2011.

Volkov, I (Oct-Dec 2005). Relationship between military discipline and self-discipline. *Military Thought*. ,14, 4. p.148(7). Retrieved May 05, 2011.

Ward, Michael. (1973). *Art and Design in Textiles*. New York, MA: Van Nostrand Reinhold Company.

Waterman, V.A. (1984). *Surface Pattern: a handbook of how to create decorative and repeat patterns for designers and students*. New York, MA: Hastings House Publishers

Weber, W. (Spring 1997). Keeping Together in Time: Dance and Drill in Human History. *The Journal of Interdisciplinary History*. , 27, n4. p.664(2). Retrieved May 05, 2011.

Wilson, J. (2001). *Handbook of textile design: Principles, processes and practice*. New York, MA: Woodhead Publishing Limited

Yates, Marypaul. (1986). *Textiles a handbook for Designers*. New York, MA: Prentice Hall Press

Image Credits

Images and work that have not been identified are the work of Kristine Brooks

www.contetualworkfmp.blogspot.co.nz: page 14

Kristine Brooks & Rawinia Kaukau: page 17

Kristin Brooks & William Minty: page 19

Ann Waterman. 1984. Technical method for creating a repeat pattern. page 22

Simon Little. 2008. Trisha Brown on paper: Tribute to dancer, artist continues. Retrieved 10 April 2011, from www.minnpost.com/camillelefevre/2008/04/16/1524/trisha_brown_on_paper_tribute_to_dancer_artist_continues: page 25

Trisha Brown mark-making. Retrieved 10 April 2011, from www.fartguide.blogspot.com/2007/08/documenta-12-trisha-brown.html: page 25

Trisha Brown. Drawing on Land and Air, Brown, T. Revolution. 2006. Edition: 35. Soft ground etching with relief roll, 25 1/2" x 22" paper size. Retrieved 10 April 2011, from www.usfcam.usf.edu/cam/exhibitions/2007_01_Trisha_Brown/Trisha_Brown.html Minnpost.com A Thoughtful Appr: page 25

Antonio Gaudi. 1910. Sagrada Familia Floor Plan. Retrieve from 9 May 2011 from www.americanbuddha.com/gaudi.collins.plates.5.htm: page 27

Hefford, 2010, p.26 London : Victoria & Albert Museum 2010 Silk design by James Leman. Dated 1718. Watercolour on paper. 39.5 x 26cm: page 29

Fortune city. (n.d). Battle of Lutzen. Retrieved 12 June from www.fortunecity.com/victorian/riley/787/30/war/l2.jpg: page 29

Vitruvian man. (2011, December 11). In Wikipedia, The Free Encyclopedia. Retrieved December 11, 2011, from www.en.wikipedia.org/wiki/Vitruvian_Man: page 33

Figure 44. Trisha Brown. 1970. Walking on the Wall. Photo taken by Caroline Goodden. Retrieved 9 April 2011 from <http://spacepr.blogspot.com/2008/06/outside-walls-human-fly-trisha-brown.html>: page 34

Kristine Brooks & Hannah: page 36, 37, 38, 40, 48

Kristine & Darwin Brooks: page 37

Colour effects Waterman, V.A. 1984. Surface Pattern: a handbook of how to create decorative and repeat patterns for designers and students. New York, MA: Hastings House Publishers: page 42

Lochiel Marching Team Basel Tattoo. (2007). Retrieved November 09, 2011, from www.youtube.com/watch?v=RSSKgoCPmVY&list=HL1330266083&feature=mh_lolz: page 50

Appendix 1

Ethics Approval

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor John O'Neill, Director (Research Ethics), telephone 06 350 5249, e-mail humanethics@massey.ac.nz.

Appendix 2

View images and video of works on DVD located at the back.

