

chapter two Methodology

In the post digital age, an increasing proportion of design practices are adopting hybrid modes of experimentation, and even rejuvenating techniques such as hand drawing, model making, craft or the testing of ideas in actual rather than virtual environments. Techniques that were once consigned to the distant past are being renewed as tools that offer results in a way that digital counterparts cannot Sheil (2008:8).

Dematerialization has an effect on the design process which creates limitations to the design outcome, therefore an alternative process is chosen for this study which responds to two preceding projects done through the act of making. Making as a method of research is implemented to support and contribute to the larger body of knowledge of the interior design discipline.

This chapter elaborates on the effect of dematerialization and the value of making and interacting with material where after the study is placed in context with two preceding projects. These projects are analysed and critically reflected on to determine the goals for this study. A design process is also generated to serve as guide for the tasks to be performed throughout the course of the design and making exploration.



2.1 DEMATERIALIZATION IN DESIGN

Over the last two decades the design disciplines have become less focused on the production of material things as well as a decline in material learning in art and design education, and more concerned with immaterial interactions. Computer aided design has become the main tool for spatial modelling and design and has replaced the messy studio based workshops. It has resulted in a hands-off design process which could be threatening the creativity of design disciplines. Ward (2015:228) highlights the concerns of the decline in workshops in design education, that it destroys the *playful exploration and sensitive understanding of the material domain*.

As more design activities become computer based it diminishes the significance of material exploration, however there has in recent years been a growing interest toward the handmade. Ward (2015:229) speculates that this could be nostalgia for simpler times. Design academics have tried to give design a serious, thoughtful status which has intellectual opportunity by moving away from material exploration as a tool for design. This process has diminished the unique characteristics of design and through the investigation of making as integral part of the design process we are strengthening the identity and status of design again. Ward (2015:229) state that designers make things to achieve a deeper understanding and it allows them to push the boundaries of knowledge.

Roscoe (2005:32) illuminates the cultural shift towards immateriality, which will continuously challenge its material counterpart and for this reason designers will have to adapt to this new paradigm and challenge their own processes. It is imperative to define what is of most value and relevance in current and future environments to have a clear understanding in moving forward in what they do and how they will do it. Through the act of making in the design process it allows the designer to reconnect with the materiality and an intimate understanding of the artefact will result in better spatial applications.

As technology increasingly becomes part of our everyday experiences it is creating a new awareness of our physical surroundings and the significance of materiality. The qualities of the material realm has always been a great source of inspiration to designers and the bodily interaction through the act of making with these materials becomes a source of stimulation to the imagination, and according to Treadaway (2009:231) it illuminates how it feels to be physically, emotionally and intellectually involved in the creative process. The process of making stimulates and inspires innovative ideas through new insight to the material or artefact.

Making by hand is a slow process which allows the designer to think, develop ideas and make decisions during this interaction and should be an encouraged process as it creates opportunity for imaginative thought. The spirit of that artefact lies in the process of making it.

Piet Zwart Institute
Angelique Etman and Marie
Gade-Lundlie
Fabrikaat



Figure 2.2.1 Material Experimentation (Dezeen, 2012)



Figure 2.2.2 Fabrikaat Material Exploration (Dezeen, 2012)

Taubman College
Ellie Abrons & Adam Fure
Research through making
2015



Figure 2.2.3 Texture Tectonics Making (Taubman College, 2016)

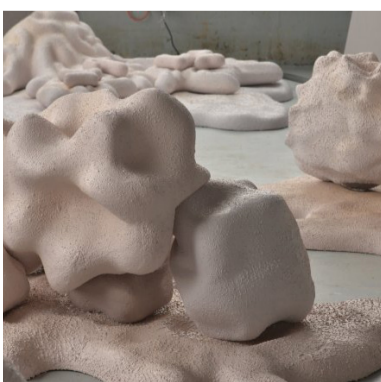


Figure 2.2.4 Texture Tectonics (Taubman College, 2016)

2.2 RESEARCH THROUGH MAKING

This dissertation moves away from conventional methods of design and aims to address both the material and immaterial qualities of spaces as explained above, through the act of making. The research method implemented is defined through the act of making otherwise defined by Candy (2006:1) as an investigation undertaken to gain new knowledge through means of practice and the creative outcome of that practice, this is defined as a Practice Based Research Method.

This dissertation is an iterative response to two preceding projects that dealt with the act of making as a method of research within the design process. Both the projects were done by students in the Masters Interior Architecture programme at the University of Pretoria.

1. O'NEIL, E. 2009. Grace under pressure: investigating a design response in the event of a disaster. Unpublished MInt Dissertation. Pretoria: University of Pretoria.
2. WHERRY, L. 2015. Knowing through making: an investigation into the construction of hand knotted textiles and their collective application as textile space defining elements within the interior. Unpublished MInt Dissertation. Pretoria: University of Pretoria.

Wherry (2015:8) states that the success of this research method relies on rigorous documentation of the process as well as the artefact's role in the creative process and therefore proposes a hybrid strategy where the practice based research is supported by an Action Research Method which could support the act of making through rigorous observation, documentation and reflection, refer to figure 2.2.1. Zuber-Skerrit, 2001 as found in Wherry (2015:16) defines action research as being a cyclical iterative process where reflections are made on actions preformed. The actions research includes planning, action, observation and reflection on this process.

Knowing through making therefore signifies a definite shift away from the more established research methods that operate from the 'known to the unknown' towards Practice-based Research that operates from the 'unknown to the known' (Wherry, 2015:8).

Wherry (2015:17) states the creative artefact contributes significant knowledge to the study obtained through the making process that is described in words as a outcome of the hybrid research strategy, refer to figure 2.2.5. Wherry further elaborates the importance of the creative artefact as playing the key role to collect data essential to the study.

2.2.1 FABRIKAAT

To place this methodology within a larger context, Fabrikaat and Research Through Making at the Taubman College are used as precedents where research through making is implemented at educational facilities in an international context where research is conducted through the creative act of making which results in a creative tangible outcome refer to the precedents to the left of the page.

Fabrikaat is an exhibition which took place at Ventura Lambrate which investigated the role of the garden with research through making as method for design exploration and celebrates the idea of making by hand. The projects were done during a three month design studio by students of the Master of Interior Architecture and Retail Design programme at the Piet Zwart Institute in the Netherlands. Craft was the inspiration to the design projects and the approach to craft raised questions such as what can be learned through making by hand in a digital age? Can new material behaviours and applications emerge from the research through making approach?

Students worked in teams and became experts in specific techniques such as cutting/folding, knitting/weaving, moulding, and cutting/scoring. They spent extensive periods of time in rigorous, unadulterated experimentation mode - exploring materials, their behaviour, techniques and applications. This process informed the design parameters for the development of the investigations and full-scale projects (Dezeen, 2012).

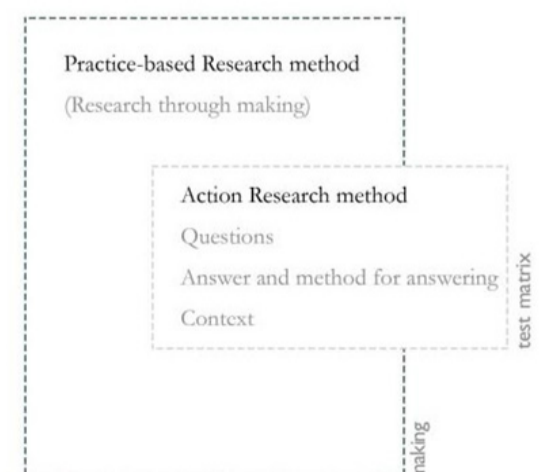


Figure 2.2.5 Hybrid Research Strategy (Wherry, 2015:8)

2.3 PRECEDENTS

The projects were used as precedent and therefore a critical analysis of the documents is required to establish the shortcomings and contributions of both:

1. O'NEIL, E. 2009.

2. WHERRY, L. 2015.

Using these dissertation documents as starting point supported by verbal communication allowed for clear understanding of where contributions were made and how this dissertation could respond to that.

1. Grace under pressure: Investigating a design response in the event of a disaster:

Project was not formally defined as 'research through making', but the making with cardboard as material was a response to a pragmatic requirement and therefore lacked the exploration of the material in all its manifestations. The project resulted in an unfinished design due to the lack of a clear research methodology. Raw data was not formally documented and although iterations would have been done, the process is unclear.

The following contributions were made by the study:

+ The study contributed to the body of knowledge of interior design by exposing the possibilities of interior design within the larger context of the built environments.

+ The study contributed to defining the importance of interior space not as an addition to, but rather a critical completion of architecture.

+ The act of making as a method to test and develop the design outcome contributes to the discipline of interior design as a method of research.

2. Knowing through making: an investigation into the construction of hand knotted textiles and their collective application as textile space defining elements within the interior:

This project employed the *research through making* as design and research strategy where focus was placed on making data instead of collecting. There was little knowledge of the implementation of this process within the interior design discipline, and great amount of effort was placed on this unconventional research methodology. The hybrid research strategy created obstacles when alternating between act of making and conventional design techniques, where long periods of time was focused on only one or the other.

The implementation of an unconventional research process proved to be time consuming and took attention away from a site specific and programmatic design response. The material was explored and developed, separately from the site, as a textile unit and the possible spatial applications were there after investigated. The hand knotted textile unit lacked dimension and remained two dimensional through the exploration. The space was treated as a testing site for the textile unit where the creative outcome was applied to rather than being influenced by.

Wherry (2015:102) listed the following contributions of the study:

+ *The study makes a contribution to the discipline of interior design at the University of Pretoria by applying a hybrid research strategy that includes the Practice-based Research method.*

+ *The study makes a contribution to the discipline of interior design as it employs the act of making as a way to do research. The discipline of interior design is concerned with interaction between the user and its environment, yet the current design process is far removed from this tactility.*

+ *The study contributes to the present discussions regarding the definition of the boundaries of the interior design discipline in relation to the architectural discipline and the architectural profession.*

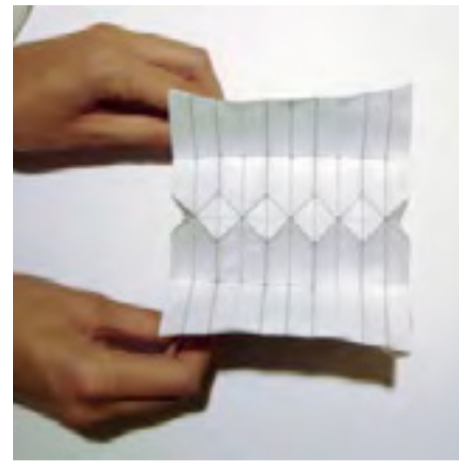
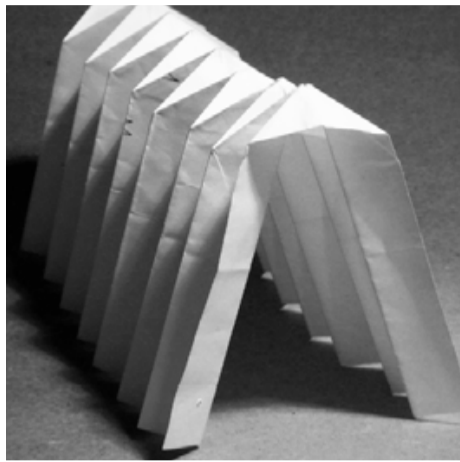


Figure 2.3.1 Grace under pressure (O'Neil, 2009)

1. O'NEIL, E. 2009. Grace under pressure: investigating a design response in the event of a disaster. Unpublished MInt Dissertation. Pretoria: University of Pretoria.

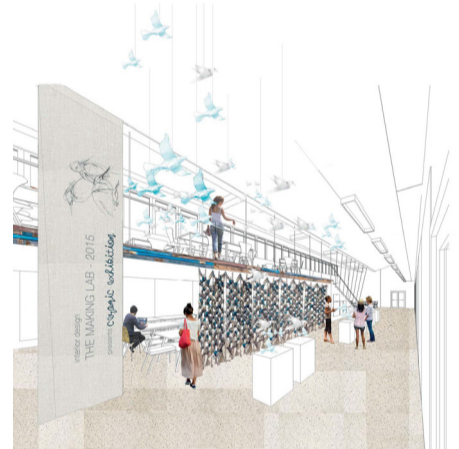
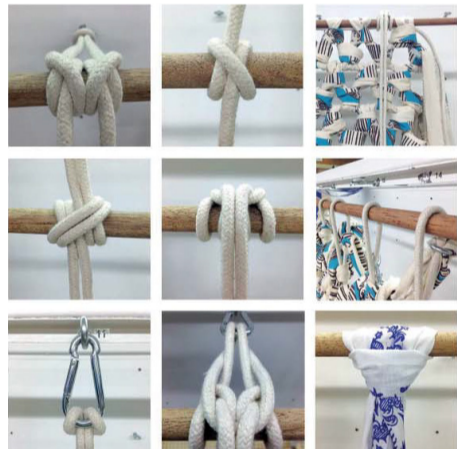


Figure 2.3.2 Knowing through making (Wherry, 2015)

2. WHERRY, L. 2015. Knowing through making: an investigation into the construction of hand knotted textiles and their collective application as textile space defining elements within the interior. Unpublished MInt Dissertation. Pretoria: University of Pretoria.

3. CYBRID AESTHETICS

Exploring the expressive potential of paper as a material for spatial application to define the new *cybrid* archive character.

2.3.1 REFLECTIONS

From the shortcomings identified through the analysis of the preceding projects, the following reflections are made in order to respond and contribute to the field of study.

A clear methodology is of utmost importance for contributing new knowledge through the making process. The hybrid research strategy will be applied as precedent for the making and investigation process of this project which consists of rigorous documentation, observation and reflection that is crucial for the design development.

A parallel process will be followed for this study which places focus on both the act of making along with conventional design development of the site and programme. The aim is for one process to influence the other constantly throughout to achieve a well-integrated spatial outcome. This dissertation aims to achieve a better resolved spatial resolution as a whole where artefact is not perceived as a product but should contribute to the spatial aesthetic and become seamlessly integrated into the intervention.

The site and material development should be integrated from the initial phases of the design process and should not be approached as two separate methods. Refer to figure 2.3.5 Proposed design process, where the development of the spatial intervention is approached as a parallel process. It is important to reach a clear understanding of the possibilities and limitations of the material in the context of the site.

2.3.2 SYNTHESISED DESIGN PROCESS

Critically looking at the preceding projects a preliminary design process is developed to gain more clarity of the steps that should be followed to achieve the required outcomes of the project brief. These steps are listed as a parallel process that should be followed where the one informs the other. Refer to figure 2.3.6 on page 16. This process serves as guideline for the project in order to achieve a resolved spatial and creative outcome.

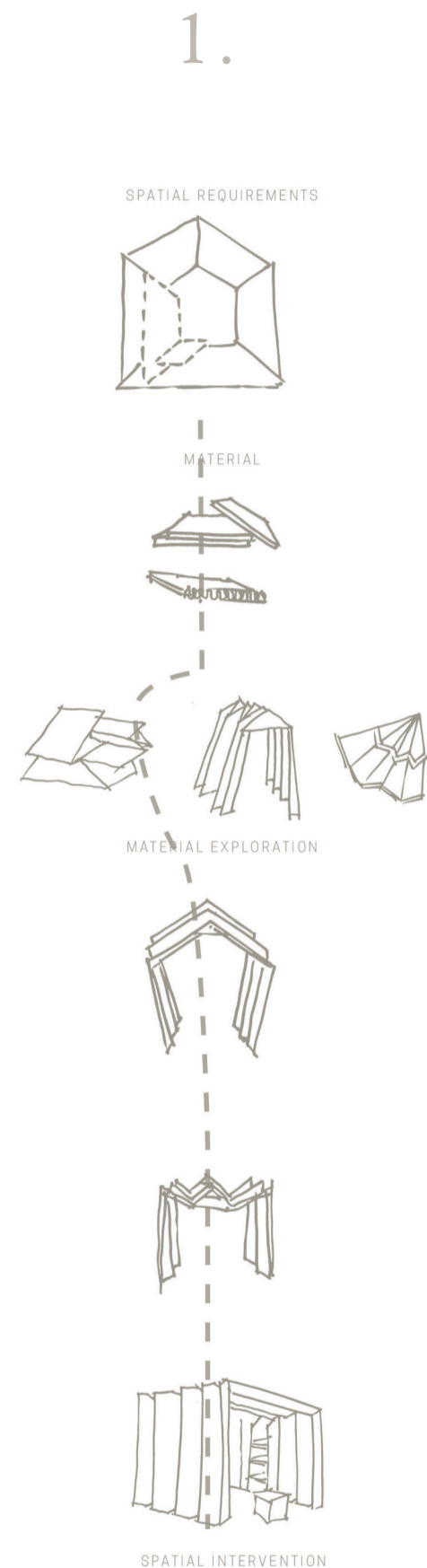


Figure 2.3.3 Grace under pressure interpreted process (Author. 2016)

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Figure 2.3.4 Knowing Through Making design interpreted process (Author. 2016)

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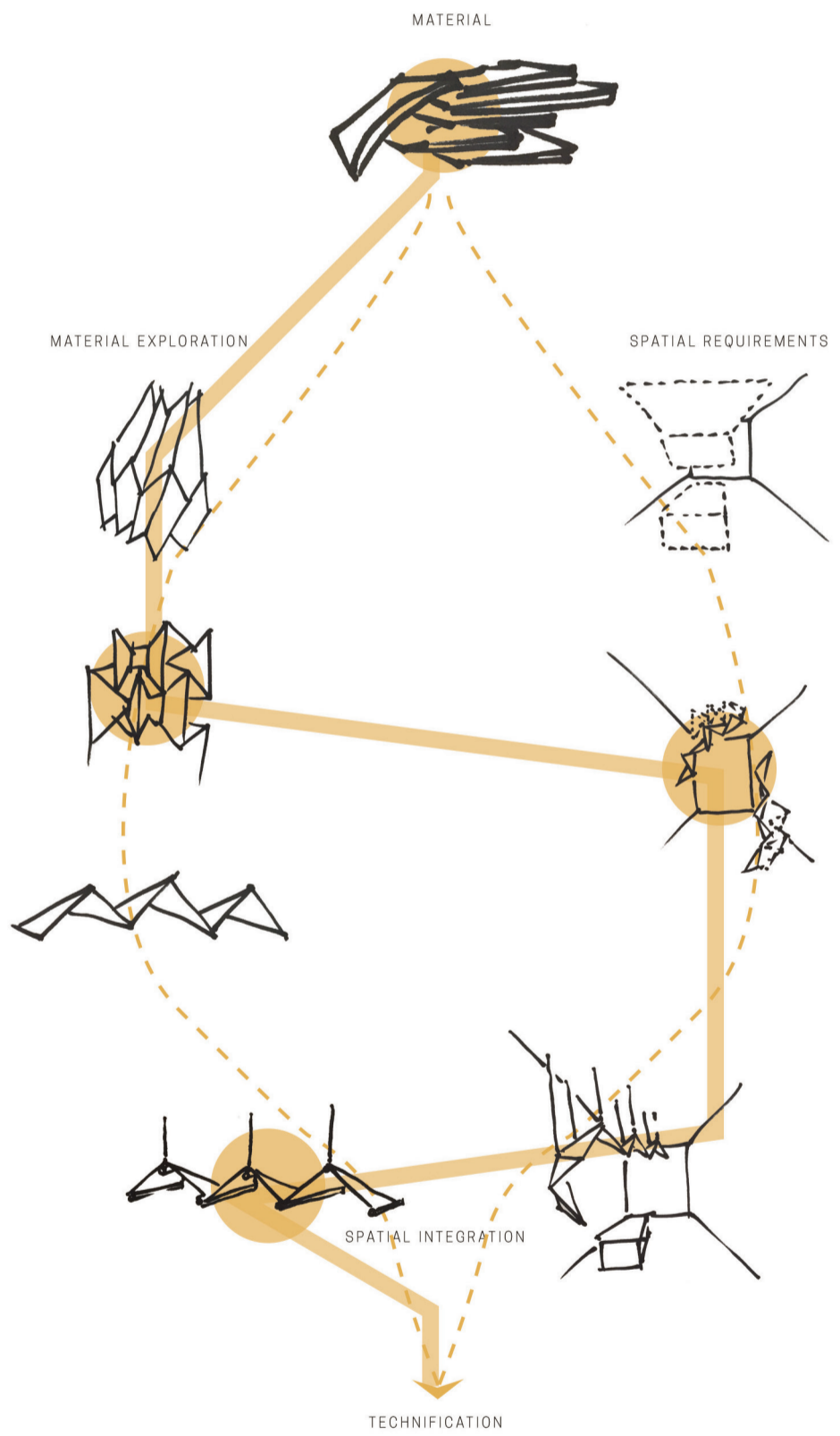


Figure 2.3.5 Proposed design process (Author. 2016)



Context should also be given in order to theoretically position the issue. Literature review is conducted in order to identify the sources to support the argument and define the issue.

METHODOLOGY

The methodology for the study need to be identified and clearly defined to place the study within a specific context.

MATERIAL

Verghese (2007:204) states that we should stop seeing material as just the outcome but rather give character to and start making material an essential part of the design process. Material should be identified that offers opportunities for development and investigation. The material should support the theoretical issue through the process of making and design application. It is not necessarily the use of new technologies but rather new approaches to old technologies, innovative ways to apply and rethink what materials can become or would be able to do.

SITE AND TYPOLOGY

The theory researched will inform the typologies considered for the project. The choice of typology should be able to support the theory and the application and testing of the material choice. Material, site and programme should be integrated as one unit for research and design development.

VISUAL STUDY

Images will be collected to aid as a visual study for determining the current use and design of the material; to position it and come to a conclusion of the current status of paper as building material. The collection of visual data will be used to create a visual board that will serve as a visual study to identify unique characteristics and craft methods of paper, which will support the material exploration.

SPATIAL ANALYSIS

A conventional site analysis will be done to achieve clarity of the opportunities as well as limitations of the site. The requirements for the functional use identified in earlier steps will be determined within the parameters of the site. Scenarios for the use of the space will be investigated to support the support the spatial requirements.

1st Phase of Making

MATERIAL EXPLORATION

The samples made will be rigorously documented, for limitations and opportunities to be identified. Material type, format and method need to be specified throughout the documenting process.

THEORETICAL APPLICATION

The theory research will be applied to the specific requirements of the site and typology. Design intentions, opportunities and limitation need to be determined based on conclusions made through the relationship between the space and theoretical approach.

2nd Phase of Making

MAKING IMAGE

The samples made in a preceding step will be explored through further making of 3 dimensional spatial image with the support of photographs, samples, models and sketches.

CHARACTER

Methods for achieving this character of the space need to be identified.

INTERIOR ARTEFACT

Through the exploration of image and character of space more clarity should be reached on what the creative outcome of the material study would be. Specific requirements need to be identified for further development of the craft method. Constraints and parameters need to be set in place for the development of the interior artefact and the spatial development.

3rd Phase of Making

TECHNIFICATION

The material artefact will be developed in further detail where technical development and construction techniques will be investigated through the act of making. Instructions for the fabrication of the artefact will be developed.

Figure 2.3.6 Synthesised design process (Author. 2016)



2.5 CONCLUSION

Through the critical analysis of the two projects a clear understanding was achieved which serve as guide to the process of making as well as the objectives that need to be achieved for the final spatial outcome. The parallel process proposed in this chapter will be tested and used to achieve the goals set out in Chapter 1 and 2.

The following chapter places the study in context, where the site and programme for investigation is elaborated. The investigation in Chapter 3 sets out a basic guide for the design and making explorations to follow. The material chosen to strengthen the proposed programme and support the act of making will be investigated in Chapter 4: Making, where the act of making and documentation of the parallel process is clearly expressed.



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