TOWARDS RESILIENCE IN SOUTH AFRICAN CRAFT ENTERPRISES, FROM DESIGN THEORY TO CRAFT PRACTICE

by
MONICA DI RUVO

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Supervisor: Prof. Johannes Cronje

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I, Monica Di Ruvo, declare that the contents of this thesis/dissertation represent my own unaided work, and that the thesis/dissertation has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

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ABSTRACT

This thesis is a response to the position of South African craft enterprises within the larger global context affecting creative industries. Fuelled by a need for skills development and job creation, the South African government identified craft industries as a potential growth sector (Cultural Industries Growth Strategy, 1998:3). Substantial investment was made in this sector resulting in some growth and job creation in the following two decades. Despite this investment, exports have been declining, and the sector still faces many challenges. Existing models for South African craft practitioners no longer mitigate the challenges faced by South African craft practitioners operating in globalized digitally mediated economies.

The fields of craft *versus,* and more recently, *with* design have formed part of on-going discourse since the development of design studies in the mid-twentieth century. Nomadic theory is used as a lens with which to interpret the conditions under which the challenges faced by South African craft practitioners can be mitigated. The findings indicate that there are alternatives to the accepted model for successful craft enterprises in South Africa that point towards ethical and alternative economic practice. An updated open and flexible model is proposed which could enable ethical and sustainable practice and build resilience in this sector.

Keywords: *design, craft, digital, design studies, nomadic theory, South African craft, cartographies,*

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ABBREVIATIONS AND ACRONYMS

Included below are the acronyms found in the text, in most instances the full name is used.

Abbreviation/Acronym

CCDI - Cape Craft and Design Institute. This name was used prior to August 2017.

CDI – Craft and Design Institute since August 2017 when the name was changed.

DAC - Department of Arts and Culture.

GLOSSARY

Anthropocene -The period during which human activities have had an environmental impact on the Earth regarded as constituting a distinct geological age (Merriam-Webster, 2021).

Crafts -"…crafts might be defined as products and objects made, decorated or assembled largely by technologies dependent on handwork, with particular skill and tacit knowledge, where the material to be used, as well as the final outcome, are preconceived or designed" (Stevens, 2007:5).

Craft enterprises -In this thesis the term is used to refer to a craft-based business venture. "… the term refers specifically to the potential of an enterprise producing crafts to create jobs and alleviate poverty" (Stevens, 2007:1).

Design -To design is to devise courses of action aimed at changing existing situations into preferred ones (Simon, 1996:111).

Posthuman -The critical perspective that the age of humanism has come to an end. It is premised on the idea that humanism's twin assumptions that humans are both knowable and reasonable is false. It rejects the idea that humans can be known, largely on the grounds that the dividing line between human and non-human or animal is difficult to delineate in the first place and highly permeable too. Donna Haraway's work on cyborgs is especially important in this regard. It also rejects the idea that because humans have reason (or at least bestow upon themselves the idea that they have reason), this is sufficient to make them the only arbiters of the fate of the planet and all its other non-human inhabitants. Posthumanism is a highly eco-conscious discourse (Buchanan, 2010).

Resilience -An ability to recover from or adjust easily to misfortune or change (Merriam-Webster, 2021).

CHAPTER 1: PREAMBLE

In this thesis, I respond to the position of South African craft enterprises within the larger global context affecting creative industries. Fuelled by a need for skills development and job creation, the South African government identified craft industries as a potential growth sector (Cultural Industries Growth Strategy, 1998:3). In the following two decades, substantial investment was made in this sector resulting in some growth and job creation. Despite this investment, exports have been declining, and the sector still faces many challenges.

Chapter 1 includes an introduction to the South African craft sector and the context for this research, followed by a brief description of the research design and theoretical approach and methods used. A case is made for the need of an updated model which responds to the challenges faced by South African craft enterprises operating in a 21st Century digitally mediated context. The chapter is concluded with an outline of the subsequent chapters that constitute this thesis.

1.1 South African craft

The craft sector in South Africa covers a broad spectrum of skills and enterprises and has tended to fall within the categories described in the Cultural Industries Growth Strategy Report (1998:9). This report stipulates traditional art including products of cultural importance, designer goods catering to higher-income markets, “craftart” as handmade functional artefacts manufactured by highly skilled crafts practitioners but not considered fine art, functional wares (including batch produced items for the home), and lastly, souvenirs made exclusively for the tourism market. Sellschop, Goldblatt and Hemp (2002) use three broad categories for South African crafts: traditional, transitional (market-led) and contemporary (maker-led) crafts focused on innovation and the aesthetic realm of art and design. Elk (2004) proposes a categorisation of South African craft along generic retail descriptions, but with emphasis on the “handmade” – such as home-ware, décor, garden and outdoor, jewellery and fashion, craft/folk art and souvenirs, rather than

associating craft with “art and craft”. These categories bring the artefacts of the craftsman and the products of the 20th-century designer into much closer proximity. In the 21st-century post cyber context, the notion of the handmade is also shifting to include some digital processes as a part of the design and manufacture of craft products (Petterson, 2019). Despite these various attempts at categorising the craft industries, the sector remains broad and because of its creative nature, constantly evolving.

In South Africa, the craft industries allow access into the economy for creative entrepreneurs, that otherwise would not easily find employment. Entrepreneurs can earn an income and have the potential to generate further economic growth through innovation. The emphasis on this sector by government since 1998 has led to numerous commissioned reports and scholarly investigations in this field (Malema & Naidoo, 2017; Nyawo & Mubangizi, 2015; Coetsee, 2015; Rogerson & Rogerson, 2010; Rogerson, 2010; Hewitt & Janse Van Rensburg, 2008; Stevens, 2007; DTI, 2007; Makhado & Kepe, 2006; Elk, 2005; Kaiser Associates, 2005; Pereira et al., 2005; Gaylard, 2004; Rogerson & Visser, 2004; Sellschop et al., 2002; Rogerson & Sithole, 2001; Rogerson, 2000). The challenges faced by this sector are recurring emergent themes in this literature, due in part to informal structures, lack of skills, limited access to markets and remote geographical location of practitioners.

Since 1994, when South Africa had its first democratic election, considerable investment in the South African craft sector has resulted in skills development and job creation. Despite this empowerment, the South African craft sector still faces complex challenges operating in globalised and digitally mediated economies.

1.2 Craft and design

The fields of craft and design have formed part of an on-going and at times dialectic discourse since the development of the field of design studies in the mid-twentieth century.

> "Craft and design are intimate partners. Design cannot be divorced from material and material is invariably crafted … in some way" (Doyle 2007:9).

More recently, digital technologies and access to open-source web-based platforms have also noticeably influenced these sectors. This synergy has not gone unnoticed, and the Craft and Design Institute has been tasked with developing and implementing a design strategy for the Western Cape as a driver for economic growth (CCDI, 2014). The 2017 Government Gazette includes the impact of digital technology and its impact on the arts, culture and heritage sector (Department of Arts and Culture, 2017).

In literature consulted, it was found that the lines between these disciplines are becoming increasingly blurred. Adamson (2010:586) refers to a point of "post-disciplinarity" where the boundaries no longer exist, essentially putting an end to the craft versus art versus design debate. Authors contend that this can be explained by an ontological shift towards the process ontologies (Carr & Gibson, 2016; Wiberg, 2016; Cardoso, 2009). Process ontologies in this context refer to philosophical fundamental positions about the structure of the world made possible through recent scientific discoveries affecting every aspect of life on earth. In keeping with this approach, in this research, I argue for the use of Braidotti's nomadic theory as a theoretical framework with which to present an informed reading of some of the processes at play in the South African craft sector.

1.3 Craft Businesses

Stevens's (2007) utilisation of a historical model provides a framework of how successful South African craft business are operated. Stevens also identifies threats and challenges to this sector including: "responding to changing consumer markets and trends, staff turnover, withdrawal of the project leader, mass-market

imitations of craft products, uneven power relations and exploitative organisational structures promoting dependency" (Stevens 2007: 331). These challenges have since been corroborated by both the South African Department of Arts and Culture (2017) and Oyekunle and Sirayi (2018). The model proposed by Stevens (2007) remains the only academic model for craft businesses in South Africa.

Limitations of the Steven's research prominently speak to globalisation and its effects on local enterprises, the heterogeneity of contemporary markets, and the uneven power relations often appearing in craft enterprises. Stevens (2007:650) makes recommendations for further research around themes of training, commodification, commercialisation, authenticity, exploitation, and government and non-governmental interventions in this sector. In the democratic South Africa, these themes are inextricably linked to a localised and politicised South African condition in response to skills development and job creation. There has not been any further research in South Africa that speaks to these challenges or limitations and I have used this as a starting point for my own research in this field. This study's content and recommendations are particularly concerned with those craft practitioners not included in Stevens's (2007) model for thriving and profitable craft practitioners, and how they could be better supported, prompting the research sub question: *How are South African craft practitioners currently supported to mitigate the threats and challenges faced by this sector in a globalised economy?*

1.4 Design Studies

In this section I refer to literature in the field of design studies and offer a brief overview of the field as well as current discourse regarding the role of design in forging sustainable futures. Design is synonymous with innovation. Innovation is linked with value and in the twentieth century, its main aim was to allow for constant product development to keep generating a need for new products, in a consumerist cycle of supply and demand for profit underpinned by a capitalist economic model.

Rittel and Webber (1973) differentiate between practical, technical problems and "wicked" problems for which there are many variables and therefore no one - solution. Buchanan (1992:14-19) states that the indeterminacy of design problems implies that there are no conditions or limits to the problem and that the designer, in response has, to conceive that which does not yet exist, therefore design thinking is suited as a method for addressing such wicked problems.

Cross (2011) proposes that design uses certain cognitive skills that are separate to the linguistic, logical-mathematical, spacial, musical, bodily–kinaesthetic and personal ones previously identified. He recognises a "designerly way of knowing" or design way of thinking that involves:

- "operating seamlessly across different levels of detail, from high-level systemic goals to low-level physical principles,"
- "rather than solving merely the problem as given, they apply their intelligence to the wider context and suggest imaginative, apposite solutions that resolve conflicts and uncertainties,"
- having "cognitive skills of problem framing, of gathering and structuring problem data and creating coherent patterns from the data that indicate ways of resolving the issues and suggest possible solution concepts,"
- "an intense, reflective interaction with representations of problems and solutions,"
- "an ability to shift easily and rapidly between concrete representations and abstract thought, between doing and thinking,"
- applying "constructive thinking in individual work but also in collaboration" (Cross, 2011:135-136).

Due to awareness of the effects of consumerism on global sustainability there has been a shift towards using design methods not only for products, but also to solve other needs such as for services and systems. The associated skills-sets that used to be the domain of the designer to ideate and develop products to feed an ever-increasing appetite for new consumerist goods, have now found broader appeal

across many sectors in an attempt to respond to global expectations of sustainable practice. Numerous authors offer comprehensive overviews of the development of literature in the field of design studies illustrating the shift of design from a focus on product to process (Hernandez et al., 2017; Nelson and Stolterman, 2012; Verganti, 2009; Kimbell, 2009; Krippendorff, 2006 and Manzini & Vezzoli, 2003).

Interdisciplinary activity is very prevalent in digital culture, where most disciplines now operate. Interdisciplinary work requires that connections are followed and concepts are related in unexpected ways. Sanders and Stappers (2008) identify an evolution in design research from a user-centred approach to a system of co-designing that is changing the role of the designer, the researcher, and the end-user. Similarly, Ehn (2008) suggests viewing design as "participative, entangled, meaning-making design games." Following this line, participatory design becomes 'a project of entanglement" of varied design methods and the designer's role becomes that of a facilitator and collaborator in the construction of 'meaningful and potentially controversial assemblies" for and with other participants in projects. In this conceptual framework, the knowledge that depends on the designer's activity is the conception and implementation of the elements of these design methods that Ehn (2008) calls 'design devices'. These devices such as prototypes, mock-ups, design games, models and sketches are also referred to as toolkits and are used by designers to facilitate participatory design interactions.

These skills form the basis of what is generally described as Design Thinking. Curedale (2012: 3-4) presents an overview of the development of this field, and lists key authors including Brown and Katz (2009), Roger (2007), Buchanan (1992), Cross (1982) Florida, (2002) and Jones (1970). Curedale defines Design Thinking as "a methodology or approach that can be applied throughout the design process in order to: define the design intent, know the context, know the user, frame insights, explore concepts, make plans and deliver an offering".

A separate industry has thus emerged with specialist consultants that are well versed in these methods, facilitating workshops in various business situations with the aim of improving efficiencies and growing turnover through innovation. Reference books devoted to design thinking methods are published and toolkits are designed, patented, and sold to be applied by anyone needing to improve systems and processes, or ironically, to develop new products. The aim, however, remains that of increasing profitability and ensuring sustainability of globalised economies underpinned by advanced capitalism (Brasset 2015). This aspect of design has attracted critique from authors as far back as Papanek (1972).

Regarding design and innovation, Dong (2014) states that, design and innovation are linked in so far as they present design as a ‘deliberate set of activities to create new products, goods and services that are novel and significantly valuable.’ As noted by Brasset (2015) this association of value with innovation implies that for something to be innovative it must therefore also be profitable. Brasset (2015:34) argues that innovation as the exploitation (for profit) of new ideas and the resulting connotation of power points to Deleuze and Guattari’s (1987) critique of capitalism and design.

Hernandez at al. (2017) indicate that the association of design with innovation in business occurred due to the fast growth of design and its association with progressive, successful design driven organisations. They question the unclear relationship between design and innovation and the resultant assumption of design’s “ability to contribute to innovation as a given” (2017:691). Hernandez et al. found that companies have difficulty transferring the success of design driven organisations into their own context. Strangely, they found that companies said they followed the design process yet in their research there were few respondents that had any specific design training. They found that Design was valued by micro and small enterprises. The assumption between the value of design and innovation was confirmed yet on further analysis they found that this relationship was limited

to the “role of design in marketing innovation”. Companies tended not to register their designs but did register brands and patented technologies. This speaks to a disconnect regarding the perception or assumption about the role of design and the actual implementation amongst the participants of the study.

Nelson and Stolterman define design as “the ability to imagine that which does not yet exist, to make it appear in concrete form as a new, purposeful addition to the real world” (Nelson and Stolterman 2012:12). The design process therefore embodies huge potential but also carries the risk of unintended consequences that cannot be foreseen. Nelson and Stolterman (2012:29) concur that using design methods as a generalizable tool aimed at delivering an expected outcome has reduced these methods to rule-based algorithms, often not achieving the desired effect. Nelson and Stolterman (2012:29) argue that this is because design differs from other methods of inquiry by virtue of its intentionality; they describe the differences as follows:

- Methods and training are rule based and can be carried out by algorithms using routine expertise.
- Experiential training is based on trial and error and carried out by heuristics using adaptive expertise.
- Design learning is based on intention and is carried out by designing using design expertise.

They also define design as an intended action in a particular time and place and say that it is therefore an example of an “ultimate particular” (Nelson & Stolterman 2012:31). The outcome of a design process, where there is more than one possible way to accomplishing the same end, is something unique to that circumstance and is therefore not “a universal” but rather an “in-situ” response. Simonsen at al. (2014:1-15) also highlight the importance of situated responses in mitigation of “blindly” transferring inappropriate design solutions in complex social settings. A situated response also resonates with nomadic thought where local, positive alternatives are sought in response to present conditions (Braidotti, 2011:20). This

affirmative view is confirmed by (Nelson & Stolterman (2012:20) as they consider design as a positive force in response to challenges of the 21st century:

> *" We are pulled into design because it allows us to initiate intentional action out of strength, hope, passion, desire and love. It is a form of action that generates more energy than it consumes. It is innovative enquiry that creates more resources-of greater variety and potential- than are used. In this way design action is distinct from problem-based reaction, which is triggered by need, fear, weakness, hate and pain."*

By placing design on a continuum of artificiality, Krippendorff (2006) describes this evolution away from material artefacts to metaphoric artefacts such as services, interfaces, systems, and discourses. Along this continuum design becomes more concerned with man's relationship with machine, more immaterial and virtual but also more dependent on narrative and language and meaning. Krippendorff (2006:12) influenced by Wittgenstein's work on linguistic turn in philosophy refers to this as the "Semantic turn in Design".

Although not from the linguistic school of philosophy, Braidotti's nomadic theory offers a 'pragmatic and localized lens" with which to analyse the "posthuman" digitally mediated context between man and machine (Braidotti 2011:6). Nomadic theory replaces the metaphysics of "being" with a process ontology focused on 'becoming'. A nomadic position resonates with design studies' preoccupation with process and innovation which embodies potential for positive alternatives. This affinity with design has been identified by authors such as Marenko & Brasset (2015:10-25). Brasset (2015:33) notes that abductive reasoning frames design as a process of becoming which engages with possibilities and the complex ways that they may be actualized.

Braidotti (2011:14) however cautions against a metaphoric interpretation and that the becoming always favours the minority subject (historically othered due to

gender, race, ethnicity, and includes all non-human subjects). Based on my understanding of nomadic theory; design thinking, although nomadic in its process, differs from nomadic theory in the unforeseen consequence of its outcomes. Nomadic theory is concerned with ethics and the effects our actions have on all others (Braidotti, 2011:286). Design on the other hand is concerned with innovation and value (profit) and at times due to unforeseen circumstances can be at the cost of human and non-human others. The two need not be mutually exclusive, and if design is to be considered nomadic as indicated by Brasset (2015:33) then, in my opinion, relational factors need to be considered such as but not limited to "affect", "power", and "agency".

Design thinking is also questioned by authors such as Kimbell, (2011:285-306) who proposes more critical research in the field and rethinking design thinking as a more situated and embodied process. Tonkinwise (2011: 533-545) argues that design in management discourse neglects the aesthetic judgement of the expert designer, the attributes included in Cross' (2001) description of a designerly way of knowing.

Acklin et. al. (2013) consider challenges faced by small to medium companies when implementing design as a driver for innovation (Acklin et al., 2013:1-12). They found that companies with "little or no prior design knowledge are better able to make use of design thinking interventions if they themselves build up design management capabilities". These authors speak to gaining the skills developed through situated practice in design, and that these are specialised skills developed by practitioners over time. To my mind, this is reminiscent of Sennet's (2008) observation of craftsmanship being mastered through repetition over time, and in this light, I propose that for design skills to become effective they should be considered as a craft with expertise honed through practice over a period of time. As noted by Sennett (2008:25) craft is concerned with quality rather than open access, or in this context, the skill of the design practitioner as facilitator rather than a method applied by anyone with access to a toolkit or published book of

methods. The role of the designer is considered paramount in participatory processes. The designer's role is that of a specialist with strong communication skills in order to partner with social actors, to create shared scenarios, and co-design sophisticated systems of products, services, processes or information (Manzini & Vezzoli, 2008).

In response to the complexity of the 21st century, design methods are now used to solve business managerial problems and social problems as well as to keep feeding an ever-increasing demand for products, and waste. The difference lies in the intention and in this instance the designer carries a level of reasonability. Nelson and Stolterman (2012:21) propose "a design culture that embraces designers in social, economic, political and personal environments". The literature outlined here points to both localised and customised approaches to problems as means to finding sustainable solutions and alternatives as designers and design researchers question the constantly changing nature of design in the "posthuman" age.

1.5 Interdisciplinary post humanity

Globally, Thomas (2006) looks at sources of design in relation to poverty alleviation, sustainable development, and its longevity to economic, environmental, social, and institutional sustainability. Craft products were found to meet most of these criteria except for institutional sustainability where they were found to be vulnerable; research conducted by Stevens (2007) in South Africa resonates with Thomas's (2006) findings. Rhodes (2011) argues that "the South African government is placing huge emphasis on the ability of craft to transform the lives of South Africans, particularly those in marginalised areas of society through entrepreneurism" but cautions against a standardised solution particularly in the digitally mediated context of homecrafts and access to the market. Oyekunle and Sirayi (2018) confirm a trend in the global decline of traditional handicrafts, yet they are of the opinion that this sector still holds potential for sustainable

development and make recommendations for innovation through design (Oyekunle & Sirayi, 2018).

The examples cited here deal with the traditional model of craft practice. It is premised on the notion of the master crafts(man) and the apprentice, learning through repetition over time (Sennet, 2009). These scenarios refer to a typical twentieth-century consumerist society embracing the need to constantly supply the demand for products in exchange for economic profit. These authors (Stevens, 2007; Rhodes, 2011; Oyekunle & Sirayi, 2018), have thus not considered the shifting role of craft and design in a twenty-first century, digitally mediated post-consumer context.

As urbanisation increases, living environments get smaller, influencing the choices people make when purchasing. Internet access is constantly and dramatically increasing across all populations, offering unprecedented access to information and education. Climate change is an ever-increasing crisis for all countries because of carbon emissions, ecological disasters due to the overuse of finite natural resources, over-population and unmanageable quantities of consumer waste. With greater access to information comes greater awareness, which in turn is slowly impacting on consumer purchasing behaviour.

Klein (2019, 2014) eloquently elaborates on the effect of advanced capitalism on the sustainability of planet earth and it inhabitants. Klein (2019:85) makes an urgent call to action and lists the “end of cult shopping” as a critical step in the right direction. Shifts in consumer behaviour can offer opportunities for agile and responsive practitioners, and the craft sector could play a role in more sustainable production and job creation. It is however evident that the models that suited 20th century consumerism are no longer adequate. Greater awareness of exploitation, not only of resources, but also of all historically excluded “others” (all except

European "man") under Enlightenment thinking informs philosophical posthumanism. Posthuman theory considers what being human has meant at the cost of all others, including non-humans and the planet. This research is positioned in this context and guided by the posthuman philosophy of Braidotti (2013, 2011). Inspiration is taken from Haraway (2016:10) who looks not to the past for "reconciliation or restoration", but to a present "becoming-with each other in response-ability", in anticipation of a "still possible recuperation".

1.6 Problem statement

Although a model was proposed for successful South African Craft enterprises by Stevens (2007), reports published since then indicate that the industry remains vulnerable. Despite considerable investment and initial growth, the 2014 IPAP report from the Department of Trade and Industry (DTI, 2014) indicated that the craft sector was showing a decline in exports and craft practitioners face many challenges operating in an increasingly globalised digitally mediated economy. The 2017 IPAP report made no mention of the craft sector, indicating that government initiatives had shifted to other sectors and greater emphasis was being placed on the knowledge economies of the 4th Industrial Revolution (DTI 2017). Similarly, the Department of Arts and Culture website provides a historical overview of the initiatives implemented in this sector over the last fifteen (15) years, yet the sector is described as "still to a great extent informal, uncoordinated and its potential not fully maximised" (DAC 2017). An updated model is required which responds to the challenges faced by South African craft enterprises operating in a 21st century context.

1.7 Aims and objectives.

The aim of this research is to interpret the conditions under which threats, and challenges faced by South African craft enterprises could be mitigated.

The objectives of the research are to:

- Conduct a literature review as a baseline for research in the field.
- Describe the support currently offered to craft practitioners.
- Develop an updated model for South African craft practitioners.

1.8 Research question

The research question guiding this research is: *How could the threats and challenges experienced by South African craft practitioners operating in globalised digital economies be mitigated?*

Sub questions

- *What is the progress of research in the field of craft and design in globalised economies facilitated by digital technology?* To answer this question a literature review was conducted and constitutes Chapter two of this thesis.
- *How are South African craft practitioners currently supported to mitigate the threats and challenges faced by this sector in a globalised economy?* To answer this question two case studies were carried out. The findings are presented in Chapters four and five of this thesis.

1.9 Research method

The research design and method are described in Chapter three of this thesis. In summary, an initial literature review was conducted to establish existing research in the field, globally and locally. The literature informed the research design and A multi-case study method was used to collect data at two sites where support is offered to craft practitioners.

Data was collected from interviews, observations, published reports as well as openly accessible information on websites and in social media. The data was thematically analysed and mapped to highlight relationships and opportunities in keeping with a nomadic theoretical approach. The findings are presented as two narrative cartographies in Chapters four and five respectively.

An updated model is presented as an alternative approach in mitigation of the challenges faced by South African craft practitioners in fast changing contexts synonymous with the digital age.

The thesis was conceptualised and written as five separate articles, however for examination and archival purposes it is presented here as a linear thesis according to the university template.

1.10 Ethical considerations

The CPUT guidelines were observed regarding ethical research, resulting in the following consent being obtained.

- Consent was obtained from the CPUT Faculty on Informatics and Design Ethics Committee to undertake the research.
- Consent in principle was obtained from two institutions where data was to be collected.
- Individual consent was obtained prior to conducting any interviews.

Research ethics concerns more than obtaining consent, but also includes the intent of the researcher and the resulting outcomes of the research. Whilst I endeavour to present this layered narrative as accurately as possible, based on my observations, transcribed interviews, openly accessible publications, my photographs as well as posts from social media, I additionally acknowledge that this is only one interpretation and that many others are possible. My approach is motivated by a personal moral obligation to try to do no harm and is informed by posthuman theory (Braidotti, 2011) which has helped me make sense of our 21st century context and has provided me with a vocabulary with which to describe what I have found. Braidotti's Nomadic ethics stems from the line of Spinoza's ethics of understanding and is supported by cartographic methods which enable accuracy. Almost all the data used for this research is in the public domain and I have been careful to consider how this research could affect all others. A nomadic

position seeks to enable positive or affirmative alternatives as a response to present conditions, and this position is used as personal motivation for the research.

1.11 Study limitations

The research is focused on South African craft and although some of the results resonate with global literature in the field and are thus generalizable in so far as the overriding factors faced in a globalised context are broadly applicable. As data was collected at a certain time and place, some of the results are site-specific, arose from specific contextual factors and may therefore not be generalizable. The literature review presented in chapter 2 also brought to light other opportunities for further research which are not included in this study.

1.12 Chapter Outline

In this first chapter I have introduced the research context, stated the research problem, aims and objectives. The format of the thesis is further outlined in this section by describing the subsequent chapters.

1.12.1 Chapter 2: Literature review

Acknowledging the relationship between design and craft, this review is framed by the need to establish and synthesize existing academic discourse in the field, as a baseline for this research in mitigation of the challenges faced by South African craft practitioners. Following a comprehensive search in academic databases, using the keywords “design studies” and “craft” and “digital”, a two-stage screening process was used to select the literature for inclusion in this review. Academic articles published over a ten-year period prior to the writing of the review were considered. Articles that referred to at least two subjects out of *design studies, craft practice* and *making in the digital era* were included. A meta-ethnography method was used as a qualitative synthesis technique in which themes found in the literature are mapped to foreground relationships. The findings indicate the progress of academic literature in this field and recommendations are made as

evidence of the relevance of this research in mitigation of the challenges faced by South African craft practitioners operating in globalised digital economies.

An edited version of this review has been published in the South African Journal of Art History (Di Ruvo & Cronje, 2017). Three years have passed since the publication of this article and with the inclusion of the review in this thesis, reference is made to more recent literature where applicable in this, as well as in other chapters making up this body of work.

1.12.2 Chapter 3: Research design and method, nomadic cartographies

In this section, I build a case for a conceptual framework for research in the field of craft and design studies in the digital age through the lens of Braidotti's nomadic theory (2011). Research into the craft sector and the associated themes of training, commodification, commercialisation, authenticity, exploitation, and governmental and non-governmental interventions in this sector, are inextricably linked to a localised and politicised South African context. Literature consulted suggests that research in this field can be supported by process ontologies, and nomadic theory offers an appropriate theoretical lens for such research. The cartographic method is central to nomadic theory as a means of engaging with and seeking positive alternatives to present conditions. There is precedent for using cartographies in academic research supported by a rhizomatic ontology. This flat (non-hierarchical) ontology enables an open and flexible approach, allowing the research to grow and expand in all directions. Mapping methods also feature prominently as data analysis tools in design studies. A conceptual framework is presented as a methodological contribution to design research methods.

1.12.3 Chapter 4: Case Study 1, a stitch in time ...

The title of this chapter references the by-line, "stitching our lives together", used by a craft project initiated so that a small group of unemployed women could earn an income from sewing. The title also references the notion that a timely

intervention can reap rewards in times to come. In the field of South African craft and design, this research seeks to interpret the conditions under which threats and challenges faced by South African craft enterprises could be mitigated. Literature covers concerns regarding sustainable production of consumer goods, collaborations and the ethical concerns regarding craft projects, and the theories that underpin these narratives. Literature also shows that these practices are underpinned by a shift towards process ontologies and rhizomatic structures, expressing a distancing from modern capitalist paradigms to more resourceful and resilient alternatives. In this chapter, findings from collected empirical data are presented to offer insights into the many threats and challenges faced by craft practitioners. Findings indicate that there are touchpoints with principles of nomadic theory and broad concepts in African philosophy, which contribute to the sustainability of this craft enterprise in South Africa. Recommendations are offered which could be leveraged as alternative economic models for craft projects in South Africa.

1.12.4 Chapter 5: Case study 2; design thinking, snake oil or cure?

The Craft and Design Institute has been tasked with developing and implementing a design strategy for the Western Cape as a driver for economic growth (CCDI, 2014). Methods and tools have been developed in the field of design studies as guidelines for problem solving and engaging in participatory and collaborative processes. The associated skills-sets that used to be the domain of the designer to imagine and develop products to feed an ever-increasing appetite for new consumerist goods, have now found broader appeal across many sectors to respond to global expectations of sustainable practice. In keeping with this global trend, the South African government has invested in the implementation of a design strategy for economic growth and in so doing has tasked the Craft and Design Institute (CDI) with the implementation thereof. Located in the field of South African craft and design, in this research I explore the support offered to craft practitioners through the CDI based on academic literature, accessible documents in the public domain, and my observations as a participant in workshops. The

findings are presented and discussed in response to threats and challenges to the craft sector identified by Stevens (2007) and recommendations are made regarding inclusive and flexible approaches for the South African craft and design sectors.

1.12.5 Chapter 6: Conclusion and recommendations; somewhere in between design studies and craft practice

Research in the field of South African craft and design has provided an opportunity to respond with regards to the threats and challenges faced by SA craft practitioners in globalised economies. This chapter is written as a reflection on my own research undertaken in this field, including a literature review, observations from two cases; a craft project in Johannesburg and participant observation of the support given to craft practitioners in Cape Town. The findings are discussed and compared, and recommendations are made in support of alternative, resilient economic models for South African craft enterprises. Questions are raised regarding nomadic and care-full approaches to sustainable futures for South African craft practitioners. Findings could inform the support offered to craft and design students and practitioners through means and methods for *making-with* as an approach to resilience.

1.13 Summary

In this introductory chapter, I have outlined the context and intent of the thesis, which was written and conceptualized as 6 separate but interconnected articles. Dissemination of the research as an open and accessible digital artefact was personally important, hence the decision to use a website which can be openly accessed, read, and commented on. The research is presented here as a linear thesis for examination and university archiving purposes.

I am building on research in the field of South African craft and offer a 'design cartography' as an innovative and ethically motivated methodological approach that could be relevant to craft and design entrepreneurs and those providing training and support to practitioners in this field. The findings reported in this research may therefore be of specific interest to academics and students of craft

and / design, craft institutes, craft practitioners and government departments. It is anticipated that the recommendations made will facilitate further research and the development of creative alternative solutions. The research is specifically located in the South African context, although some findings may be generalisable in which case, it is hoped that this research could spur alternatives in other contexts.

2. CHAPTER TWO: LITERATURE REVIEW

Although there are compilations of academic publications in the field of craft (Adamson, 2010) and in the field of design studies (Clark & Brody, 2009) this review has primarily focused on the impact of digital technology in these areas. The progress of the discourse in this field is varied and well represented by authors publishing in design, craft and human-computer interaction journals which have been accessed and included in this review.

South Africa has a rich and diverse craft sector, showcased in exhibitions such as Collective Craft (held in Cape Town and Johannesburg) as well as in well-documented publications (Coetsee, 2015). Yet, none of the literature searches in academic databases resulted in finding local (South African) content. It is my opinion therefore that there exists room for more academic publication in this field. The need to establish a baseline for further research has contextualised this review in the fields of craft and design. The question guiding this review is therefore articulated as follows: What is the progress of research in the field of craft and design in globalised economies facilitated by digital technology?

2.1 Method

A preliminary online search was done by using academic databases available through the library of the Cape Peninsula University of Technology, which included Ebscohost, Worldcat and Google Scholar. The only keywords used were 'design studies', 'craft' and 'digital' to include only English, accessible, full texts published since 2007. Additional searches were conducted by means of Mendeley, ResearchGate and the Academia.edu online platforms. An initial and exploratory appraisal of titles was executed to eliminate articles outside the parameters of design studies and/or craft.

The resultant list was consequently converted into an Excel spreadsheet. This spreadsheet was applied to sort the articles for inclusion according to date of publication, title, keywords, methodology employed and the relevance of the

abstract. The remaining full texts were screened for inclusion or exclusion. For this review, academic literature refers to published conference proceedings, journal articles, chapters in edited books, and three master's-degree dissertations (Connor, 2011; Pfeiffer, 2009; Norton, 2014). To be included, articles had to refer to at least two of the three subjects in question, namely design studies, craft, and digital technology. Using a bibliographic snowballing technique, additional articles were sourced from references in the articles under review. However, these were included only if they met the predefined search and inclusion criteria.

Forty-nine (49) published articles were selected based on the described inclusion criteria and were subsequently reviewed. Of these, five (5) articles referred to design and craft, nine (9) to design and digital technology and twenty-six (26) to craft and digital technology, while the remaining nine examined topics relating to craft, design, and digital technology. All the chosen articles used qualitative research design and methodology. Design has always been closely associated with technology, and the increased interest substantiated by the number of articles dedicated to craft and digital technology is indicative of the impact of these technologies in this field.

A meta-ethnographical method, as described by Dixon-Woods *et al.* (2006), was used to qualitatively synthesise the selected articles. These articles were read and scrutinised in their entirety, after which the emergent themes were highlighted and assigned descriptive (open) codes.

In the next stage, the data and codes were revisited and grouped according to broad themes. These themes were mapped to foreground specific patterns and relationships. Mapping methods are used in design studies as data analysis tools (Curedale, 2013; Fendler, 2013). By creating visual diagrams, one can make connections that may not be immediately evident in audio or textual data.

2.2 Digital technologies

In the post-digital context, the internet and digital technology have democratised design, and larger percentages of the world's population can now have access to software and tools previously the sole domain of the designer (Fleischmann, 2015). Process-driven design methods have been appropriated in many other fields and inter-disciplinary collaboration has become the norm for design practitioners. Similarly, digital technology has affected the craft practitioner: globally, craft support is shifting online with connected and accessible repositories and support offered by NGOs, digital access to markets, and internet-based craft communities (Winge & Stalp, 2014; Norton, 2014; Hackney, 2013; Luckman, 2013; Connor, 2011, 2008).

Design thinking and its associated methods are increasingly being applied to a broader context to respond to so-called third millennium "wicked problems" through innovation (Rittel and Webber, 1973:160) for which there appear to be no immediate solutions. In Chapter one, I argue that this method has ironically, in its simplified and broad application, become a universal and all-purpose approach, often not yielding expected results.

Emerging themes in design discourses are concerned with design futures, speculative methods, and narratives, all underpinned by a notion of care. Nomadic theory (Braidotti, 2011) supports this ethical underpinning and is troubled by the emotional impact of all our actions on others (see also Chapter 3 of this thesis). Nomadic theory deliberately seeks local or situated responses to challenges. Haraway (2016:2) passionately argues for a response to challenges which is present, engaged, and responsible. She calls for "making kin" to survive and thrive in a troubled world, by people forming alliances and making- with all others.

> *"Making kin as oddkin rather than, or at least in addition to, godkin and genealogical and biogenetic family troubles important matters, like to whom one is actually responsible. Who lives and who dies, and how, in this kinship*

> *rather than that one? What shape is this kinship, where and whom do its lines connect and disconnect, and so what? What must be cut and what must be tied if multispecies flourishing on earth, including human and other-than-human beings in kinship, are to have a chance?"*

The abovementioned philosophers are relevant to this research because they provide an appropriate lens with which to consider opportunities to mitigate challenges and find alternative solutions in the post cyber context. The notion of making also resonates very strongly with craft and design that has always operated in this milieu.

2.3 Indigenous Knowledge

Craft falls under the disciplines included in the Indigenous Knowledge system. Indigenous Knowledge can contribute to a better understanding of sustainable development and recommendations have been made to find similarities with Eurocentric research to integrate indigenous knowledge with other forms of intelligence or wisdom (Ocholla, 2007; Battiste, 2002:10-11). In design studies, participatory methods are proposed as one way of merging the skills of the design professional (Eurocentric) with local knowledge to achieve sustainably responsible results (Manzini and Vezzoli, 2008).

In the field of Indigenous Knowledge, the term "indigenous ways of knowing" is used to refer to the expertise and wisdom held within contextually bound communities and passed down from one generation to the next. This matter is considered important in the era of globalisation where local knowledge is useful in solving complex problems in developed and developing countries (Interinstitutional Centre for Indigenous Knowledge, 2012).

Craft has traditionally been taught through doing or making; design is taught and practiced through doing (prototyping, making, evaluating, and testing). Modern design research includes methods such as design diaries, cultural probes, scenarios, role-play (acting), participant observation and writing of design fictions. Similarly, Indigenous Knowledge is learnt and disseminated through doing, dialogue, storytelling, participant observation, experiential learning, making, meditation, prayer and ceremonies (Battiste, 2002).

The mitigation of ethical concerns and the prevalence of participatory research methods during engagement with communities are highlighted by Cochran et al. (2008). Presently, strong community participation is favoured instead of token inclusion. Indigenous Knowledge is offered a voice by means of co-design in participatory environments, and the resulting artefacts also offer opportunities for ethical recording and dissemination of this type of wisdom and knowledge. With the use of participatory methods that align with traditional cultures, care needs to be exercised regarding concerns of intellectual property abuse, appropriation of knowledge and in the case of unequal power relations.

Analogous challenges are being experienced in other developing countries such as India. In this case, Chaudry (2014) considers community and development of participatory environments as problematic, and he states that progress has not been effective to date, particularly as a result of top-down approaches with little impact at grass roots level. Chaudry (2014) further proposes alternative sustainable conceptual alternatives for community and development in the Punjabi context and recommends looking towards Indigenous Knowledge systems for such options.

2.4 Becoming resilient.

In craft theory, Sennett (2008) refers to humankind's tendency towards doing a job well for its own sake. This ability to do a job well enables the craftsperson to reach high levels of skill and accomplishment by repeatedly doing something over a period. In design studies, Simon (1996:111) correspondingly defines design as 'courses of action aimed at changing existing situations into preferred ones. In both instances, there is an intrinsic motivation towards improvement; an attitude of not giving up, in which a degree of resilience is implied. In this instance I refer to 'becoming resilient', as a critical quality needed for South African craft practitioners to be sustainable in globalised digital economies. Nomadic theory supports the notion of "becoming" as having transformative potential, "from negative into positive relations, encounters and passions" (Braidotti, 2011:31).

2.5 Craft 3.0

The South African*, Revised white paper on arts culture and heritage (2017).* albeit in draft format, still refers to the creative sector as 'traditional and contemporary art, craft art, functional wares, and souvenirs' (DAC, 2017:35). For this paper, I instead used the categories proposed by Ferrara (2011). Although Ferrara's categories include all the above-mentioned ones, they shift away from old binaries of craft versus art and craft versus design to include the varied hybrids which now form part of this creative sector, namely:

- Do it yourself (DIY) craft includes not only recreational craft and craft carried out at home to earn income, but also craft that makes use of recycled and repurposed materials. This could also include the hacking of materials and technologies in order to produce and create new artefacts. An approach of 'mend and make do' is often accompanied by a resistance to consumerism and its associated environmental degradation (Carr & Gibson, 2016).
- Technological craft includes all forms of traditional crafts and can be material or process driven. These crafts require the skill obtained by

repetitive actions over a period (Sennett, 2008) and usually involve experimentation and a degree of risk (Pye, 1968).

- Electronic craft or digital craft is associated with the democratisation of design and includes all forms of digital technologies. These range from online platforms for the sharing of skills and techniques to digital printing processes and rapid manufacturing (Pfeiffer, 2009; Gershenfeld, 2012; Chen *et al.,* 2015). The maker movement is also represented in this category as an independent and interdisciplinary field (Richardson, 2016).

2.6 Digital effects and affects

The mass production of consumer goods in the mid-20th century saw the role of the designer surpassing that of a craftsperson for the manufacturing of functional objects. The conceptualisation or design on the one hand and the production of the artefact on the other were now separated in order for products to be manufactured cheaply and in large quantities for mass consumption (Sennett, 2008; Cardoso, 2009). Tasks of the mind (design) were therefore separated from tasks of the hand or body (production), resulting in a disembodied state synonymous with industrialisation. Cardoso (2009) attributes this to the Western, humanist tradition of elevating mind over matter. In this context it has been argued that this separation led to a conceptual 'othering' of craft, with craft considered to be 'lesser than' (Bean & Rosner, 2012) or 'in opposition to' design and manufacturing (Carr & Gibson, 2016). In nomadic theory, this mind/body dualism is rejected in favour of an 'embodied, embedded, relational and affective subjectivity' (Braidotti, 2017:18).

In a digitally mediated context, authors have started to reconsider the mind/body relationship and have argued that craft and design have been brought into closer proximity, and that the boundaries between these disciplines have therefore blurred. They contend that craft and design should be regarded as overlapping

practices (Kettley, 2016; Shiner, 2012; Cardoso, 2009). In this new paradigm it has been proposed that design could be viewed as a form of craft (Bean & Rosner, 2012). However, unlike previous craft movements, technology, including digital production, is no longer seen in opposition to craft and artisanal industry. Consequently, more pragmatic approaches are favoured today in which designs can be executed in alternative ways. Ferrara (2011) has considered this as an imperative if craft practitioners are to survive in globalised economies.

Bonnardel and Zenasni (2010) found that digital technologies embrace all stages of the iterative design process, thus enhancing this process. Whereas these technologies were earlier only accessible to a select group of design professionals, they are now freely available, and open-source software and digital platforms have played an important role in democratising design. 'Open design' refers to the collective design of software and products by sharing information openly online. These co-created designs are aimed at solving complex problems for various applications. These include design for communities in need, developing advanced solutions not possible without multidisciplinary collaboration, and the sharing of files for localised production. Closely aligned to this phenomenon is the maker movement, in which technological artefacts are made or improved through the application of post-production components as a sustainable practice (Ferrara, 2011).

The impact of digital technologies on production methods has not gone unnoticed by design educators and learning and teaching curricula have been adapted to incorporate this. The Future Craft Programme introduced at MIT addressed sustainability in product design through the employment of digital tools and processes to address public design, local design within communities, personal wearable technologies, and product ethnographies (Bonanni, Parkes & Ishii, 2008). At the University of Brighton in the United Kingdom, the previously distinct disciplines of craft and design have been merged in a post-disciplinary design and

craft curriculum that uses design thinking as the base for experimentation in shared collaborative processes (Kermik, 2012).

While the articles mentioned above present the benefits of digital technologies in the fields of craft and design, there are some demerits as well. Lindtner, Bardzell and Bardzell (2016), for example, caution against 'technosolutionism', whereby Western technology is considered as the solution for all difficult social problems. They consider this as a form of colonialism – and in its place, propose (digital) making rather as a process of 'global assemblage'. According to Deleuze and Guattari (1987), an assemblage indicates heterogeneity, contingency, instability, partiality and situatedness. Lindtner *et al.* (2016) argue for local approaches that are both technically relevant yet human-centred.

One example of such an approach is found in the work of Rosner and Ryokai (2008). By embedding technology into hand-knitted articles, it became possible to capture information about the process and embed narratives that strengthen the emotional connection with the handmade object, without changing the look and feel of the knitted artefact. This resulted in a blurring of boundaries between the knitted object, embedded digital information and the knitters' intentions (Rosner & Ryokai, 2009). The emotional connection associated with handcrafted artefacts is also acknowledged by other authors, such as Townsend and Niedderer (2016), Zoran (2013), Bratich (2010), Sennett (2009) and Treadaway (2007).

Digital technologies have supported a crafts revival as a response to mass production, mass consumption, environmental concerns and the economic downturn of 2008 followed by a series of global events increasing instability and volatility of global capitalist markets. The internet has enabled online virtual spaces where craft enthusiasts can meet, share practice, access information, and material, and gain access to marketing platforms for finished items to be sold online (Norton, 2014; Hackney, 2013; Luckman, 2013; Connor, 2008). Bratich (2010) discusses the role of craft in the development of values through practice by

referring to the connections made and opportunities for mentorship that occur within communities.

Online communities provide fertile ground for craft-based activism and political engagement through which social and environmental concerns can be expressed through blogging and craft-related websites (Hackney, 2013; Connor, 2008). This bourgeoning tendency towards activism has been solidified as anti-capitalism and anti-authoritarian craftivism, and includes practices of resourcefulness, local knowledge application and non-hierarchical organisational forms (Bratich, 2010). The value of craft lies in its ability to affect. This can be viewed as an alternative to capital as a maker of value. The value in craft can therefore be found through participation and bottom-up approaches such as the gift economy, small-scale production, circulation, and collaboration (Herrera, 2016). These alternative practices can simultaneously pave the way for new economic models (Bratich, 2010; Von Busch, 2010). Designers are no longer the only people who do designing, and users are no longer just consumers but productive 'prosumers' instead.

The ability of a body to affect is also considered important in the nomadic theory which, according to Braidotti, speaks to the Deleuzean notion of affect as a productive force or 'the processes of becoming-other, in the sense of relating, hence of affecting and being affected' (Braidotti, 2006: para.11).

Braidotti's (2011) nomadic theory provides a philosophical position which can be used to describe and engage with this context and frame responses which are not based on lack, but rather seek affirmative alternatives based on interdependence, ethics and understanding. Braidotti builds on the work of Deleuze and Guattari (1987) and puts forward a philosophy that enables mobility of thought appropriate to the speed of change in a technologically mediated, post-human age. Nomadic theory is based on a process ontology that privileges change and motion over stability (Braidotti, 2013). In terms of power relationships, this movement is

described as ‘becoming’ – it considers movement towards the minority subject from a position of the majority or dominant subject, which tends to remain static. This mobility of thought in turn enables a state of transformation which is referred to as a state of “becoming” and describes a position of all matter “in between”, but never binary or static.

Cartographic methods are central to nomadic theory:

> “A cartography is a theoretically-based and politically-informed account of the present that aims at tracking the production of knowledge and subjectivity (Braidotti, 1994, 2011a, 2011b) and to expose power both as entrapment “*potestas”* and as empowerment “*potential”* (Braidotti, 2018).

The term, “adequate cartography”, refers to an ethical position based on accuracy and accountability gained through understanding. An in-depth discussion is presented in the next chapter.

Although some communities currently remain outside or on the edge of digitally mediated technologies, the pace of change and increasing access to digital devices are set to rapidly increase rhizomatically, consequently facilitating access to new economic models and other creative possibilities. Technology as an enabler of access to information, markets and manufacturing has blurred the boundaries between design and craft and offers opportunities for collaborations and connections, localised solutions, and more sustainable practices. Ethical concerns can emerge regarding authorship and equity in collaborative practices. Alternative economic models are also required: if design is in the public domain, how does income generation take place on a day-to-day basis?

All these practices are underpinned by an ontological shift towards process ontologies and rhizomatic structures, which express a separation from the modern capitalist paradigm to more resourceful and resilient alternatives underpinned by

ethical practices (Carr & Gibson, 2016). In the field of human-computer interaction, Wiberg (2016) proposes a reframing of the current material turn so that the emphasis is not on the computer, but rather on the materiality of the interaction. The interaction of designer and computer as material: 'The computer is dead. Long live the interaction!' (Wiberg, 2016).

2.7 Virtual guilds

Online marketing sites such as Etsy have provided alternative economic models (Luckman, 2013; Norton, 2014). Etsy is an online community with no gatekeeping apart from access to a computer and the digital literacy to be able to upload images of products (Luckman, 2013). On these platforms, authenticity is accentuated, as crafts practitioners are offered the space in which to set up their own online personal profiles. The stories around products can now be told and there is a transparency surrounding the product, the materials used, and the labour practices involved to get the artefact to market.

The original artefact has essentially become a desired aesthetic. Previously disparaged women's craft practices have regained credibility and popularity. Virtual communities emerged as empowering spaces that challenged previous gender-based classifications of craft as inferior to other creative outlets, or merely as a hobby outside of commercial economies. Consumers of these products also feel that they have contributed in some way to a more ethical way of consumption by purchasing directly from the producer and being able to make informed decisions regarding their purchases. Norton (2014) explores notions of authenticity associated with the 'handmade', as it carries with it values based on skill and the time invested to execute each artefact.

Craft has traditionally been taught through doing; the apprentice learned from a master through observation and creating over a period, resulting in tacit knowledge that could then be passed down to others (Sennett, 2008). The medieval guild system was essentially based on this instructional relationship between the master

craftsman and the apprentice. As craft practitioners move out of rural environments into cities, many working independently, they are also able to connect and share work online. Bonanni and Parkes (2010) describe these online communities as virtual guilds. The apprenticeship model is imitated, but now the learning takes place online, facilitated by open access platforms. Craft practitioners meet in online communities where peer-to-peer engagement takes place. In these habitually gendered spaces, crafters swap information and knowledge – but they likewise swap stories and the online craft community functions as a support mechanism. Today one can learn ow to do almost anything online.

The feeling of well-being and connectedness which comes from community is well-known. Authors like Townsend and Niedderer (2016), Norton (2014), Zoran (2013) and Bean and Rosner (2012) all describe this emotional aspect of craft in their research. Whether craft is seen to embody history, culture, and memory through traces of location, time, and place, or whether it is a means to express the pleasure of making and happiness in our daily work, there is an intimate connection with the material artefact.

2.8 Authenticity

Authenticity is rooted in ideological values. What may be authentic to one group may not be considered so by another. In online craft communities, authenticity lies not only in craft as an activity but also in craft as a way of life. Notions of authenticity attributed to the qualities of handmade craft become less clear when digital manufacturing processes are employed. It is no longer obvious how something has been made and what it has been made from (Woolley & Niedderer, 2016). Loh, Burry and Wagenfeld (2016:15-16) suggest that with digital manufacturing, “the authenticity of craft lies within the deeper structure of the practice: a workflow developed over a period of time”. With continued repetition, the employed tools, materials, and technique all become a unique ‘repertoire’, which in itself, is authentic. Here we see a shift of focus from concept to process.

As craft practice becomes more collaborative and participatory, Kettley (2016) presents three frameworks for authenticity in response to these digitally mediated practices. Based on a relational ontology rather than the traditional notions of tacit ‘romantic’ and explicit ‘enlightenment’ views of authenticity, these frameworks consider individual, societal, and ecological authenticity in a non-hierarchical context.

2.9 Craft culture and heritage

Continuity of skill is often connected to intangible cultural heritage and can be regarded as vulnerable in a globalised world. Threats include access to funds for operational costs, access to markets and a lack of recognition. Niedderer and Townsend (2015) question the importance of the survival of a craft if it is no longer practical or appropriate. In mitigation of challenges faced by craft practitioners in globalised economies, Niedderer and Townsend (2015) also call for ‘resilient approaches’, meaning that craft itself has to adapt.

Blundel and Smith (2013) accentuate the fact that, over extended periods of time, craft practitioners have been resourceful and resilient and effect small transformations and innovations in response to changes in material availability or process or technologies. They argue that this may not always be obvious, but over time the craft develops and techniques and materials change to suit society. Just as design reflects the times, so does craft. Examples of this phenomenon have been well documented in South African craft by Sellschop, Goldblatt and Hemp, (2002).

In South African and South American countries (such as Chile, Brazil, and Peru) governments see craft as an economic and cultural activity, usually handmade, using locally available materials and therefore representative of a specific place. This ‘situatedness’ or localisation has lent itself to the craft sector catering for tourist markets. In the first 10 years of the dawning democratic South Africa, this sector was considered as a means of creating jobs and income generation

(Gaylard, 2004). Twenty-four years later, in the face of fast-changing globalised economies, one could, however, question the sustainability and relevance of these practices that were aimed at job creation.

In a globalised context, and in mitigation of dying skills, Vilbrandt, Vilbrandt, Pasko, Stamm and Pasko (2011) suggest the use of digital fabrication with open-source software to recreate traditional crafts, which can then be displayed as virtual models or utilised to produce three-dimensional physical artefacts on demand. They argue that they are preserving tradition and introducing it to a wider, new audience. This raises questions regarding authenticity and the connection to material, technique and skill traditionally associated with craft (Sennett, 2008). Nevertheless, this technology could be used as an interactive way for the public to engage with historic artefacts and therefore represents a record of past culture and heritage.

Myzelev (2016) contends that once artefacts are represented in the digital media, for example in an online exhibition such as those curated by museums, their authenticity becomes irrelevant. Once an object has been digitised, its qualities of physicality are lost, but are replaced with an understanding of its production and an ability to disseminate this information. Myzelev (2016) suggests that the change that an object has undergone when digitised becomes more important than the object's authentic provenance or original use. Digitally curated exhibits can highlight the hybridity of contemporary craft. In this context, curation becomes important and the ability to document the narrative pertaining to the history and changing context of the artefact is imperative. These narratives engage users and could foster participation from interested viewers.

As a response to the threats faced by some craft practitioners, various authors put forward proposals based on collaborative multidisciplinary practices to support rural craft practitioners. Padovani and Whittaker (2015) propose that the maintenance of local knowledge and enhancement of traditional skills can

contribute to sustainable business. Through collaboration, the value of social capital and the benefits of using local networks can be benefited from. The typically high-end products generated through these collaborations allow the consumer to make choices regarding provenance of the object purchased. In such an instance, the narrative supporting the article becomes a vital factor. The three following global examples describe successful interventions of this nature.

- In India, a network of easily accessible resource centres serve as repositories for physical artefacts and digital archives of embroidery and needlecraft. This provides an interesting approach to the curation of archives, while preserving and disseminating knowledge. Fashion designers and craft practitioners access these archives, and connections for collaborations are made through these platforms. Kumar and Dutta (2011) describe a symbiotic relationship in which traditional craft brings originality and authenticity to fashion designers' work, and the designer brings sustainability to the rural craft practitioner.

- A project implemented in Western Australia, based on cluster theory, built capacity in the craft and design sector. The project focused on foundational design skills, processes from concept to production, and business skills. Challenges were also identified regarding craft practitioners accessing capital for growth and the capacity to build networks to sustain growth (Lommerse, Eggleston & Brankovic, 2011). A similar model has been applied through the CDI in the Western Cape in South Africa.

- Herrera (2016) describes a successful intervention to present local origin to global markets in Brazil where artisanal craft holds strong cultural capital. By keeping to traditional materials, they were able to produce original innovative work, restore identity and maintain cultural tradition while embracing technology-scripting and digital fabrication methods.

While online platforms offer ease of access to global markets, rural and underdeveloped communities are still limited in terms of access to technology and the digital literacies to be able to engage on these platforms (Herrera, 2016). In these communities, traditional craft forms are still practised to earn sufficient income to survive. Herrera (2016) notes that in Brazil, craft offers a means with which to cope with adverse conditions. This holds true in many South African rural communities.

2.10 Ethics

One advantage of these collaborations is the continuity of craft skills, albeit in new and modernised ways. This has been effective in the mitigation of changing consumer trends by progressing craft in innovative ways in response to the tastes of consumers. The disadvantages of these collaborations lie in the lack of frameworks for co-creation and the long-term benefits for producers and designers. Collaborations between differently resourced participants raise questions about intellectual property and ownership of the work both for the maker and the designer. Sometimes these relationships can be precarious, and even exploitive (Murray, 2010).

Murray (2010) further raises questions of equity and risk: by exploring the collaborative relationships between designers and craft practitioners, a case is made for creative partnerships based on equity. Research undertaken in Istanbul showed craft/design collaboration to be beneficial if it is conditional on a blend of practical exchange of knowledge, experience, and resources (Kaya & Yagis, 2011). In this research, they recommend obtaining clarity regarding responsibilities for the respective scopes of work up front. The authors note that new ways of communicating design ideas need to be found and negotiated in some cases, thus forming new hybrid craft/design practices. Success therefore relies on negotiation, problem-solving skills, and respective responsibilities for scope of work, leaving no room for the marginalisation of either party.

New modes of production naturally bring about deeper questions relating to ethics and empathetic practices when reimagining sustainable, post-Fordist and post-consumer economies. Examples of these open design and manufacturing networks include: Open source sharing of design ideas for common good and communities such as the Design for the common good network/s (http://www.designforcommongood.net/) and sustainable manufacturing networks such as the maker movement. Hatch defines makers to include crafters, hackers, and tinkerers in his 2014 manifesto (Hatch, 2014).

Products, in this instance, are no longer designed as finished articles but are constantly being improved upon and updated with each intervention or innovation cycle which due to digital technology are now openly accessible by anyone. Products no longer need to be produced in large quantities by manufacturers for mass consumption but can be designed and produced to varying degrees by the consumer, in which case the intellectual property is no longer owned by a single entity.

2.11 Practice

Authors who describe the role of technology in their own practices clearly integrate technology to varying degrees. The following examples fluctuate from the use of technology as an aid to the use thereof to replace the handmade. In the first instance, technology supports the creative process while emphasis is still placed on the handcrafted aspect of the final product, and so informing the perceived emotional content of the artefact (Cheatle & Jackson, 2015; Treadaway, 2007). In the work of Zoran (2013) and Zoran and Buechley (2013), however, digital fabrication is merged with traditional craft within one artefact, resulting in a hybrid assemblage that acknowledges the transitory aspect of time. The unified or fused digital fabrication onto and with traditional objects respects both, and the resultant transformed object is loaded with meaning. Devendorf and Ryokai (2015) also

consider hybrid (physical/digital) fabrication to reflect alternative everyday materials as part of fabrication activity. The last example pivots around a new aesthetic that emerges from digitally mediated manufacturing that would not otherwise be possible through the mere use of traditional methods and materials. Digital technology is therefore seen to augment creative possibilities, as there are no moulds – no two objects ever need to be the same (Eden, 2012; Harris, 2012).

2.12 Sustainability

Sustainability relies on meeting the needs of the present while ensuring the ability to meet future needs, it is measured against three pillars, namely economic, environmental, and social needs. Design by extension is linked to all three of these pillars in that everything artificial has been designed. Design impacts on what gets made and at what cost to the available natural resources and environment. Design has an impact on economic growth through innovation of products and design impacts society through improvement of products and services. Economics, advanced capitalism and sustainable design and production are therefore inextricably linked (Dresner, 2012).

Sklair (2002) argues that globalisation and mobility of capital have manifested in the ecological crises as well as in a crisis of class polarisation through the accumulation of wealth at the cost of others. He makes a case for an alternative "socialist globalisation" which forefronts human rights as an organic project, as opposed to current capitalist globalisation. Similarly, the environmentalist, Jonathon Porrit (2005:65-66), does not view capitalism and sustainability as mutually exclusive and proposes sustainable capitalism premised on production for human needs instead of production for profit and accumulation. In support of sustainable natural systems, Porrit (2005:151-153) mentions the importance of a sense of community and the leveraging of social capital to facilitate higher GDP, improve job markets, increase educational attainment, lower crime, improve health and improve government institutions.

Klein (2015) writes extensively in the field of sustainability and critiques advanced capitalism in the context of global warming. Klein makes a strong case for an alternative to advanced capitalism as an economic model (Klein, 2019). Increasingly across all sectors, authors support the global movement that acknowledges that alternative economic models are necessary these authors include economists such as Beeson (2019) Stensrud & Eriksen (2019) Oberoi & Halsall (2019) and Martin (2016).

Braidottis nomadic theory offers an appropriate lens for research in this context through its critique of advanced capitalism at the cost of all others, including non-humans. Nomadic theory, as further explained in the next chapter, is underpinned by an awareness of process and ethical relations with all others in a forward-thinking manner to find alternative solutions to present challenges. As the realisation that the environment and life on earth is at risk is becoming increasingly mainstream the market for sustainably and ethically sourced and produced products is increasing and it is hoped that through this research alternative solutions for the craft industries are enabled which could offer resilience against the challenges faced operating in digitally mediated globalised economies.

2.13 Summary

In response to the question posed at the beginning of this chapter*: What is the progress of research in the field of craft and design in globalised economies facilitated by digital technology?* The predominant discussions and their possible implications for this research are indicated in the table included below. In consideration of the challenges faced by South African craft practitioners, in this research I will use these themes to guide the discussion of the findings.

TABLE 2 SUMMARY OF THE LITERATURE

Theme	Implication for the sustainability of craft businesses
The democratisation of craft and design through online communities (Norton, 2014; Hackney, 2013; Luckman, 2013; Connor, 2008).	This has implications on how support is offered and how products can be marketed. Access to the internet, to devices and digital skills training should be considered.
The integration of technology with traditional practice (Cheatle and Jackson, 2015; Devendorf and Ryokai, 2015; Taylor and Townsend, 2014; Zoran, 2013; Zoran and Buechley, 2013; Eden, 2012; Harris, 2012; Treadaway, 2007).	Access to Fab-labs or similar facilities or outsourcing to fabricators for prototyping, and using new technologies as part of the design and making process are becoming increasingly accessible, opening up opportunities for practitioners to remain relevant and increase efficiencies.
The role of technology with accent on authenticity and innovation (Kettley, 2016; Woolley and Niederer, 2016, Loh et al., 2016).	The importance of authenticity and innovation in digitally mediated contexts.
Responses to concerns regarding the sustainable production of consumer goods (Klein 2019;Padovani and Wittaker, 2015; Lommerse et al., 2011,).	The implications refer to what is being made and why. A greater awareness of sustainable materials and practices, such as but not limited to using local, renewable materials, on demand production, alternatives to products.
Collaborations and the ethical concerns raised (Herrera, 2016; Padovani and Wittaker, 2015; Lommerse, Eggleston & Brankovic, 2011; Kaya and Yagis, 2011; Kumar and Dutta, 2009).	Collaborating through local networks. Frameworks for Ethical collaborations are needed. Support platforms to teach "21st century skills". to facilitate access to information and opportunities for collaboration.
Theoretical shift away from a modernist capitalist paradigm towards process ontologies and rhizomatic structures, (Carr & Gibson, 2016; Wiberg, 2016; Cardoso, 2009; Lindner et al., 2006).	This has implications for the relevant and appropriate theoretical positioning of the research.

2.13.1 Limitations

The review also indicates other areas for possible research in the field which are not included in this research, and as such can be considered here as limitations to this research. There are existing opportunities for transdisciplinary collaborations between designers and students of design, and craft practitioners as catalysts for experimentation with materials, processes, and technologies. The literature indicates that frameworks are required for ethical collaborations and empathic

research practices, especially between differently resourced participants. Local replication studies based on interventions to support craft enterprises in the form of ‘virtual guilds’, open-source marketing platforms and virtual repositories for the preservation of culture and identity could be undertaken. The question of appropriate curation and the authority of large institutions versus bottom-up approaches should be elevated. Increasing research could be done on the provision of alternative sustainable economic models in support of craft practitioners in South Africa. Lastly, there is always scope in the creative industries for disseminating practice-led research initiatives and showcasing local new technologies and practice.

CHAPTER THREE: RESEARCH DESIGN AND METHOD

In chapter two, an overview of the literature in the field of craft and design in digitally mediated contexts is presented. Themes that have emerged in the literature are listed and provide a baseline for this research. In this chapter, I describe the theoretical underpinning for the research followed by the research design and method used.

3.1 Becoming nomadic, a theoretical position

The Steven's model for Successful South African Craft enterprises was based on the historical model of William Morris. Critique of Morris's arts and craft movement at the beginning of the 20th century argued that it was idealistic, and in a way contradictory to its ideal of "art for the people by the people", in that it ended up being so expensive that it catered to an elite few that could afford it and was not appropriate to the living conditions of the majority of the population the time (Muthesius, 1902:112). This phenomenon is also noticeable in the South African craft sector in the sense that high-quality craft items, often made of expensive materials, are designed for and marketed to the affluent consumer or collector and usually out of reach for the majority of the population. Access to expensive materials to service this market is also prohibitive for most South African craft practitioners.

Cooke critiques Morris by referring to Lyotard's view that the postmodern era is characterised by a breakaway from the metanarratives of modernity aimed at establishing homogenous societies underpinned by Marxist Theory (Cooke, 2009:228). Ganon and Davies (2007:72) also critique modernity by stating that *"such grand narratives exclude other ways of seeing, privilege accounts from those with power, and promote falsely linear versions of history" (Gannon & Davies, 2007:72).* Within 20th century postmodern thought, traditional Western positions are questioned in favour of multiplicity and difference. Imposed order, social

coherence and the predictability of hierarchical categories and dialectic thinking are rejected (Gannon & Davies, 2007; Sarup,1993).

In the French School of Post-structuralist thought, Deleuze and Guattari (1987) introduce the concept of the nomad in the seminal book, *A thousand plateaus, capitalism and schizophrenia.* They introduce the notion of the nomad as always being in position of flux, moving toward alternatives to the present condition. Their nomadism is not concerned with physical travel but rather on the nomadic nature of knowledge in resistance to established conventions and power structures. knowledge is never static.

> *Nomadism is "a way of being. Breaking from hierarchical structures it is driven by a desire to experiment and explore, to learn, grow, and boldly venture forth on creative lines of flight (Philosophy for Change, 2013).*

Braidotti's nomadic theory builds on this foundation and considers mobility of thought in the fast-changing technologically mediated context of the third millennium. In the field of contemporary feminist philosophy, agency and the possibilities for action are emphasised. The subject exists in a specific time and place which is always positioned historically and politically and, as this is not static, it can, therefore, be questioned and changed (Gannon and Davies, 2007:83). The following concepts, as described by Braidotti (2011), have informed my position for this research:

3.1.1 Situated responses

In a globalised context advanced capitalism is creating an ever-increasing economic divide and power relations are "more ruthless than ever" (Braidotti, 2011:25). In response, Braidotti proposes that we "need to think global but act local in the situated here and now of our lived experience" (Braidotti, 2011:20, 216). Nomadism provides an experimental, grassroots approach to changing our "environments, cultural norms, values, our bodies and ourselves" (2011: 269). Similarly, design researchers consider that current complex global problems cannot be solved with large scale interventions, but rather with multiple small-scale

local interventions collectively working towards a common objective (Manzini & Rizzo, 2011:199-215). Design is a process that "takes place in particular situations and is carried out from embedded positions", and therefore requires situated methods to respond appropriately (Simonsen et al., 2014:1-2). A situated response is applicable to research in the field of South African craft as it is focused on specific interventions and local conditions which could even differ from region to region.

3.1.2 Power

In nomadic theory power is seen both as a productive, creative force "*potentia"* (Braidotti, 2011:95) and a restrictive, negative force "*potestas*".

> *A statement or expression of shared desire in the sense of potential … an act of faith in our capacity to make a difference ... an expression of generosity and love for the world" (Braidotti, 2011:362).*

This potential embodies mobility of thought by connecting thinking and critique and creating. Critique is not necessarily a negative force but rather seen as an effort to generate sustainable (positive) alternatives. The vision of nomadic politics always equals positive affirmation and the construction of alternatives*, and "... seeks for sustainable alternatives and affirmative modes of engagement in the present by linking acts of thinking to the creation of new concepts" (Braidotti, 2011:8).*

The desire to improve the "status quo" is the motivating force in the field of design studies. *"The urge to design – to consider a situation, imagine a better situation, and act to create that improved situation- goes back to our pre-human ancestors" (Friedman & Stolterman, 2014:ix).* In participatory design, Simonsen et al. (2014:52) point out that there is always a forward-looking perspective to shape possible futures. Although Deleuze and Guattari (1987:10) provide a philosophy in support of "creative lines of flight" and innovation, they also criticize the field of design as a "shameful moment": when the "disciplines of communication" such as design, marketing, computer science and advertising appropriate the word

‘concept’ as part of their exclusive scope of work. Brasset (2015:34) explains Deleuze and Guattari’s critique of capitalism, design and innovation as a “capitalist machine” through which the production of new products for consumption is merely repeated and not new in the sense that they do not challenge the exploitative machine of advanced capitalism itself.

A Nomadic position takes these factors into consideration and considers the affect that all our actions have on other, human, and non-humans and provides a vehicle with which to enable new alternatives, all relations are underpinned by nomadic ethics of understanding achieved through accuracy and the cartographic method.

3.1.3 Cartographies

Cartographies and the cartographic method are central to nomadic theory. A cartography indicates a narrative map aimed at highlighting power differences, not only amongst humans, but also all non-human subjects. Braidotti (2002; 2006:7) presents narratives, mythologies and fictions as “figurations” or “cartographies” of the present.

> *A cartography is a theoretically based and politically informed reading of the present (Braidotti, 2011:216).*

For this exploratory research, a cartographic method is considered, as it offers a vehicle through which to provide a multi-perspectival view of context and dynamics taking place, bringing forward power relations not merely as critique, but to enable possible positive alternatives.

3.1.4 Difference

Difference is not neutral. Based on Spinoza’s ethics of affirmation and becoming, nomadism questions how differences can be viewed as a positive contribution in opposition to historic, dualistic, humanist and Cartesian thought. In the humanities, the ideal “man” is considered to be “white, masculine, adult, heterosexual, urban-dwelling, and property-owning” and difference was seen to exclude all *others*

(2011: 6,131,210). Braidotti (2011:17) thus proposes difference as a “nomadic, non-hierarchical, multidirectional social and discursive practice of multiplicity”.

> *The relocation of difference and self-other relationships from anthropological difference to include posthuman, the biogenetic and biopolitical relevance of “life itself as a non-human force” (2011:16).*

3.1.5 Becoming

In nomadic theory, becoming is a way of destabilising the status quo, it is a way of becoming other, where the other is the minority subject (i.e. all others as opposed to “man”) fast-changing environments necessitate mobility of thought, always in a process of becoming. Braidotti, 2011:122) explains:

> *Becomings are unprogrammed as mutations, disruptions, and points of resistance. Their time frame is always the future anterior, that is to say, a linkage across present and past in the act of constructing and actualising possible futures”.*

The object of ethics is not the individual subject or subjects, but “the effects of truth and power that actions are likely to have upon all others” (Braidotti, 2006:14; 2011:300). This position speaks to the responsibility towards all human and non-human others; to achieve this, “accountability, ‘situatedness’ and cartographic accuracy” are required (Braidotti, 2011:300). Nomadic ethics also acknowledges a co-presence or interdependence (Braidotti,2011:53), which demands accountability based on a strong sense of community; a sense that in a globalised world of feeling “*we* are indeed in *this* together” (2006:93; 2011:218). Braidotti expands on this and explains that ethics in the post-structuralist French School of Philosophy is not confined to rights, justice and law, but to notions of political agency, freedom, power relations and responsibility concerning alterity (Braidotti, 2011:300).

Braidotti argues that this communitarianism finds some alliance with non-Western humanist postcolonial perspectives (2011:131). Similarly, feminist and post-humanist, Haraway (2016:102) calls for making “kin” as a means of multi-species

cohabitation on a damaged planet. Haraway does not look to the past for retribution, but rather to still-possible futures in “sympoiesis” (2016:125) as a “becoming-with each other in response-ability” as a means for resilient living and recuperation from inherited “colonial, postcolonial, and natural cultural histories”. In each of these cases, the sense of community is extended to include non-human subjects, animals, plants, cells, bacteria and earth (Braidotti, 2006:57).

The above concepts (situatedness, power, cartographies, difference and becoming) all speak to resilient approaches to interrogating, understanding and living in the technologically mediated digital age. Nomadic theory offers a mobile and open framework which is suitable for inclusive and ethical research in the creative fields of craft and design.

Advanced capitalism, involving the increasing reliance on artificial intelligence, is impacting on social, economic and political aspects of our daily existence. In the South African context, unequal access to resources and technology are factors which speak directly to some of the challenges experienced by craft (and design) practitioners. Successful craft practices operate within a 20th-century model – yet in a globalised, digitally mediated context, other inclusive alternatives are possible. If I am to build on the research conducted by Stevens (2007) by responding to the challenges and threats identified in this sector, nomadic theory could offer a suitable lens with which to probe the effects of potential, affect, power and agency.

Grellier (2013) generates a rhizomatic text by writing the nodes and allowing the reader to construct the connections, instead in this research I have chosen to write the in-between, the relational connection between literature and lived experience, between theory and practice, between the digital and the analogue. By acknowledging that there is no one truth or absolute position but that experience, and knowledge is in a constant state of flux on a continuum between two points. My interpretation is therefore one possible representation of the case studies intended to facilitate movement. In this instance in mitigation of the challenges experienced by craft practitioners in South Africa.

In this brief overview, I have highlighted points that, in my reading of nomadic theory, have resonated with my personal ontological (non-hierarchical, rhizomatic), epistemological (nomadic, feminist), and axiological (exploratory, creative) position toward this research. I propose that nomadic theory offers a "pragmatic and localised set of tools of analysis" (Braidotti, 2011:6) with which to view the context of South African craft.

With this research, I seek to enable favourable alternatives, not in opposition to existing models, but rather in degrees of resonance and dissonance, always in a process of becoming-resilient.

3.2 Maps

> "If I am not really going anywhere, then travel by map of course provides the only possible route – to everywhere, to nowhere in particular, to the folds of the human genome, the summit of Everest, the paths of future transits of Venus for the next three thousand years. Even buried treasure, lost continents and phantom islands are all accessible by map" – Dava Sobel

In South Africa, craft has played an important role in the definition of a democratic identity based on diversity and cultural heritage. The democratically elected South African government invested in this sector as a means of skills development and job creation in the decade following their election (Gaylard, 2004). This investment in the craft sector in the period after 1994 resulted in growth, which also benefitted the tourism industry. Well-documented books, craft itineraries and guidebooks were published, the most comprehensive being the Eskom-funded *Due South Project* (Eskom, 2006). This guidebook – originally published in 2004, with a second, more comprehensive edition in 2006 – is distinctly different from other publications documenting the South African craft sector in the sense that it is essentially a map. Organised by geographical region, each double page spread includes:

i) A navigation strip.

ii) A narrative description of craft practitioners and destinations to visit in the area.

iii) Photographs highlighting the type of product for each site, complete with a short description, address, telephone, and email contact details.
iv) Pages of interspersed geographical maps.
v) Sections of photographs of local people.
vi) Quotations and photographic documentation of craft manufacturing processes.
vii) Pictograms indicating the available facilities and operating hours at each site.

The instant accessibility of a large amount of information was made possible by combining narratives with other visual mapping methods to simultaneously convey very detailed yet varied interconnected information.

Premised on the tendency of all matter to never remain static, nomadic theory (Braidotti, 2011) is characterised by mobility of thought appropriate to the fast-changing complexities of the digitally mediated 21st century. Central to nomadic theory is the cartographic method.

Braidotti (2011:216) describes a cartography as a 'theoretically based and politically informed reading of the present' as a means of interrogating power relations and seeking positive alternatives. Simultaneously, mapping methods feature prominently as data analysis tools in design studies, and in the inter-, multi-, and transdisciplinary design processes employed to respond to the complex problems of the third millennium. The guiding research question for the following section asks how cartographic methods can be employed to support a conceptual framework for research in the field of South African craft and design in the digital age.

3.3 Literature

A review of literature was undertaken with an initial search in academic databases, using the keywords 'rhizomatic research'. Numerous articles in the field of education and e-learning were found. These were then excluded and only articles

relating to rhizome theory, research methods and/or design studies were retained and focused on in the study. The search was subsequently expanded to include the terms 'cartography' and 'mapping', and in this case, articles referring exclusively to geographical cartography were once again excluded, while articles relating to nomadic theory, research methods and design studies were once again incorporated.

Literature with a focus on cartographic research methods indicates that there is a precedent and strong argument for using cartographies supported by a rhizomatic ontology in academic research (Charteris, 2014; Clarke & Parsons, 2013; Martin & Kamberelis, 2013; Fendler, 2013; St. Pierre, 1997). Other examples found in design studies, and summarised by Curedale (2013) are presented in Table 3 below. From the literature consulted, it can be concluded that mapping methods are inextricably linked to the design process.

Table 3. Research mapping methods

AUTHOR	METHOD	FIELD AND RELEVANCE
Walt Disney Corporation, 1928	Activity maps	Business tool for mapping activities across individuals, teams or departments in a group or community.
Kawakita, 1960	Affinity diagram	Management and planning tool used to organise large amounts of data, bring forward relationships (Curedale, 2013:202)
Becker, 1962	Behavioural maps	Design Studies. Recording participant behaviours and/or movement within a space. Map intent of design intent versus actual usage. (Curedale, 2013:206)
Curedale 2013	Benefits map	Interpret and synthesise (Curedale, 2013:274).

Lynch,1960 Tolman, 1948	Cognitive mapping	Social and behavioural research. Represents perceptions about relationships between space, place, social and physical features of physical and built environment.
Powell, 2010 Prosser and Loxely, 2008 Novack & Gowan, 1996	Concept mapping	Design Studies. Elicits connections between previous current and concurrent ideas. Develops thoughts about concepts and highlights social relationships, 'potential to provide agency where none existed for those on the periphery of society' (Prosser & Loxley, 2008:28)
Whiteside, Bennet and Holtzblatt, 1988	Contextual enquiry	User-centred design research method. Interview-based and uses affinity mapping to create models of users' context.
Gee, 2011, cited in Ulmer and Koro-Ljungberg, 2015	Discourse maps	How participants, through data, were informing, acting, beginning to connote senses of identity, agency, power, and knowledge.
Mathews and Gray, 2010	Empathy map	Design Studies. To know people and context, this tool helps designers to empathise with the people they are designing for. Can be used for a group or a persona. (Curedale, 2013:224)
De Freitas, 2012	Knot diagrams	Nomadic pedagogy. 'Diagramming as creative force rather than a reductive one. Knot diagrams lend themselves to the study of complex linked networks because they break with Cartesian measure and honor the topological connectedness of the network' (De Freitas, 2012:557).

Seyer-Ochi, 2006	Lived landscapes	To make sense of the built and historic layers in relation to the natural landscape and the lives that are made possible by such a landscape.
Collins 1960 Buzan & Buzan, 1993	Mind maps	Used to organise data around a central key point. Mind maps are hierarchical and show relationships between elements (Curedale, 2013:282).
Conran, 1991 (Curedale, 2013:6)	Mood boards	Design visual communication method. A visual collection of images, words, and objects to convey a mood or idea about a topic.
Unknown, in Curedale, 2013	Onion map	Design Studies. Hierarchical map indicating dependencies of a system (Curedale, 2013:300)
Unknown in Curedale, 2013	Perceptual map	Design Studies. To interpret and synthesise data, particularly comparison of perceptions of competing parties.
Lynn Shostack 1983	Process map	Document activities over time (Curedale, 2013:210)
Fendler, 2013	Social cartography	'This generative, performative quality is implicit, where mapping learning is not merely an exercise in representation but, rather, involves developing an awareness of one's identity as a learner' (Fendler, 2013:599).
Serriere, 2010 Cairns *et. al*., 1995.	Social mapping	Document and analyse the nature of relationships between people and their social networks.
Mitchell *et. al.,* 1997	Stakeholder maps	Design Studies. To document stakeholders and their relationships. Map affect and power relations (Curedale, 2013:266)

3.4 Rhizomes and nomads

Deleuze and Guattari (1987) introduce the rhizome as a flat (non-hierarchical) ontology that enables an open and flexible approach, allowing research to grow and expand in all directions. 'It has neither beginning nor end, but always a middle (milieu) from which it grows and which it overspills' (Ibid, 1987:21). According to Deleuze and Guattari (1987), this philosophy can be described as having the characteristics of a rhizome made up of plateaus.

Plateaus, in turn, are multiplicities connected to other multiplicities by stems to form or extend a rhizome. Deleuze and Guattari (1987:21) describe the six characteristics of the rhizome as follows:

- Connectivity 'between semiotic chains, organisations of power and circumstances relative to arts, sciences and social struggles' .
- Heterogeneity.
- Multiplicity, as 'the rhizome is reducible neither to the One nor to the multiple ... It is composed not of units but of dimensions or rather directions in motion'.
- A signifying rupture: a rhizome may be broken yet it will start to grow again at another point and form a new line.
- Cartography, the rhizome's unbound ever-growing structure is best represented as a map that can spread outwards.
- Decalcomania, where a rhizome is not governed by a structural or generative model (there is no pattern), and as such it is a 'map and not a tracing' (Deleuze & Guattari, 1987:21).

Deleuze and Guattari (1987) introduce the nomad as a conceptual and social manifestation that resists and challenges established power and knowledge structures, which they refer to as 'tracings':

> "In linguistics as in psychoanalysis, its object is an unconscious that is itself representative, crystallized into codified complexes, laid out along a genetic axis and distributed within a syntagmatic structure. Its goal is to describe a

> de facto state, to maintain a balance in intersubjective relations or to explore an unconscious that is already there from the start lurking in the dark recesses of memory and language. It consists of a tracing, based on an overcoding structure or supporting axis, something that comes readymade" (Deleuze & Guattari, 1987:12).

Clarke and Parsons (2013) consider this position regarding research and provide their guidelines for rhizomatic research. Starting in the middle, these authors suggest that 'rhizome researchers' should:

> ... recognize their embeddedness, allow the research to lead them, accept that attempts to synthesize are never finished, listen to those before them and on the margins, and give themselves to a life of becoming, thus 'breaking' the binaries that can capture or stifle their attempts to be educational researchers ... (Clarke & Parsons, 2013:35).

Informed by the philosophy of Deleuze and Guattari (1987), Braidotti's nomadic theory (2011) is based on the transformative potential of matter, always in a state of mobility between points, and always in a process of 'becoming', which embodies affirmative creative potential. Nomadic theory is not about literal travel, but about the actions that defy or resist convention. Movement or mobility of thought is embodied in the change incurred when entering new territory, and alternative ways of thinking and being. Nomadic theory is therefore characterised by the potential it has to evoke change. In this context, Braidotti (2011:4) presents a cartography as an accurate reading of the 'present politics and power relations at play' aimed at actualising new possibilities.

Cartographies are central to nomadic thought and Braidotti (2011) argues that critical cartographies are not negative, but also entail creativity: they assist us in the process of learning to think differently about ourselves, particularly in response to the complexity of our times. Similarly, Haraway (2016:5) refers to the creativity of people who 'care and act' as a means of dealing with complex and troubled times.

The nomadic theory is concerned with the effect and affect of actions with respect to others. Alternative figurations (cartographies) are living maps of situated embedded and embodied positions; they provide 'alternative representations for the kind of nomadic subjects we are becoming' (Braidotti, 2011:13). Importantly, they are not metaphors for a generalised 'human or posthuman condition' (Braidotti, 2011:14).

The social anthropologist Tim Ingold considers maps in relation to the narrative and its association with mobility, asserting that '… places do not have locations but histories. Bound together by the itineraries of their inhabitants, places exist not in space but as nodes in a matrix of movement' (Ingold, 2002:219).

> It is the knowledge of the region, and with it the ability to situate one's current position within the historical context of journeys previously made – journeys to, from and around places – that distinguishes the countryman from the stranger. Ordinary wayfinding, then, more closely resembles storytelling than map-using (Ingold, 2002:219).

Literature discussed so far, indicates that there is a precedent for using cartographies in academic research supported by a rhizomatic ontology. In the next section, I build a case for a conceptual framework for research in the field of craft and design studies in the digital age through the lens of Braidotti's nomadic theory (2011). This flat (non-hierarchical) ontology enables an open and flexible approach, allowing the research to grow and expand in all directions. Mapping methods also feature prominently as data analysis tools in design studies. A conceptual framework is presented as a methodological contribution to design research methods.

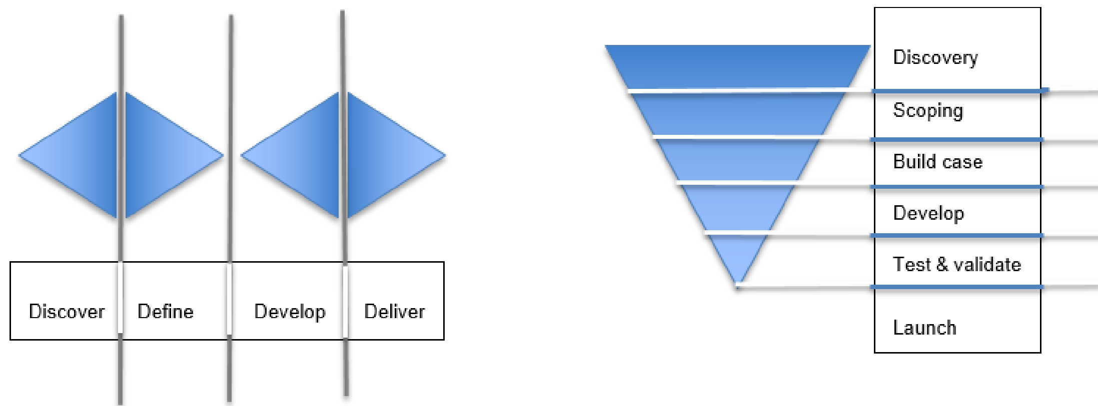

Figure 3.1: Double Diamond (British Design Council, 2005) and Innovation Funnel (Benkenstein, 1998).

De Freitas (2012) notes that diagrams do not have to be reductive but should rather be productive, operating through potentiality and possibility. In Deleuze's terms, 'the essential thing about the diagram is that it is made in order for something to *emerge* from it, and if nothing emerges from it, it fails' (Deleuze, 1994:102).

A map best describes a rhizome, but on a conventional map the focus is invariably on the destination. By virtue of the naming of it, the attention shifts to the destination or outcome rather than the process. Similarly, on a network diagram, it is usually the nodes that are named. Once a point or node has been named, then, it cannot be new. Deleuze and Guattari (1987:8) assert that '... there are no points or positions in a rhizome, such as those found in a structure, tree or root. There are only lines'.

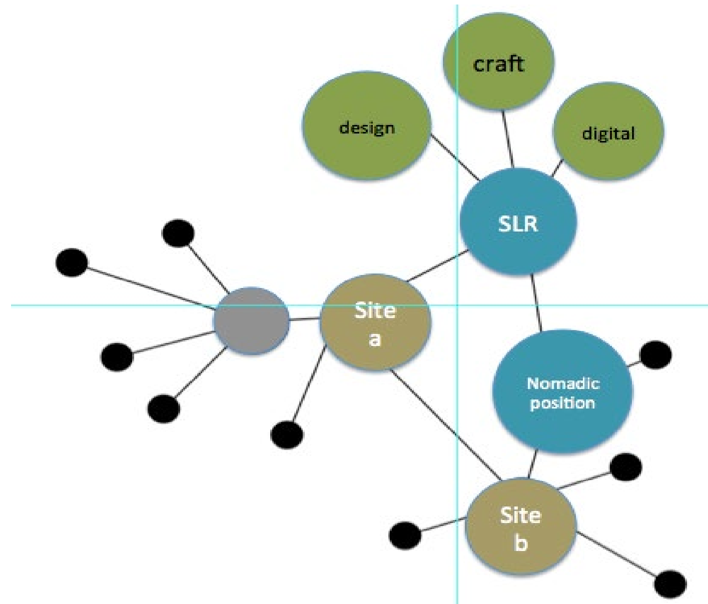

Figure 3.2 A map as a conceptual framework

Faced by the challenge of how to graphically represent a nomadic cartography, in keeping with the literature presented in this paper, I concur that by adopting a nomadic position, synthesis and integration are not possible and an open flat ontology is required. I also acknowledge that complexity cannot be represented in bound, linear process diagrams and that by reducing the complexity through integration or synthesis, inherent characteristics are altered and processes are undermined by outcomes. By using the image of a line with no beginning or end but a middle milieu (Deleuze & Guattari, 1987), emphasis returns to the process rather than the outcome. It can extend outwards in all directions, but it can also be considered in relation to others – its neighbours.

In cartography lines represent paths and roads. In this instance, each line represents a process or becoming. When lines intersect, spaces are created in between. These interstitial spaces are the holders of relational situations, which can be explored. This representation also enables more than two dimensions and, once points are shifted off the x:y plane, the potentialities are limitless – this way of depicting my understanding of a nomadic cartography is illustrated in the simplified diagram below:

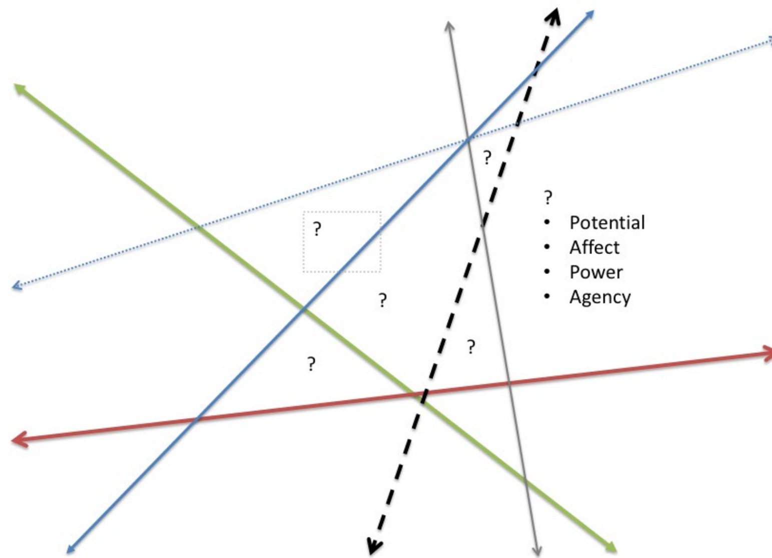

Figure 3.3: Nomadic relational cartography as a conceptual framework.

The diagram can be used to visually guide the narrative by highlighting the intermezzo as discussed by Deleuze and Guattari (1987). If the lines are envisioned as processes, then the spaces in between are the relational situations – such as, but not limited to:

- Power
- Agency
- Potential
- Affect
- Values
- Location

Nomadic theory supports a relational ontology and therefore the spaces created in between the lines need to be considered. In the arts, the concept of 'interstitial' refers to work whose nature falls between accepted genres and categories. It is the art made in the space between different disciplines, mediums, and cultures, and free of the constraints of category labels (Denham, 2014), thus resonating with the trans-disciplinarity evident in the digital age.

3.5 Ethical considerations

A map always has some degree of distortion or representation to portray information or data onto a flat page, and that content is selected and curated to fit that page. In the field of cartography, Wood (2007) considers the representation of three-dimensionality and the subsequent relationship with representation in the artwork of LoCurto and Outcault. Maps are perceived as though they are 'views taken from a single vantage point overhead' (Wood, 2007:88), whereas the topographic view means that 'maps are seen literally from an infinity of vantage points, each precisely overhead every point on the map' (Wood, 2007:88), thus offering a multi-perspectival view. Deliberated like this, infinite readings of maps are also possible.

Wood (1993:4) states that 'cartographic values are unavoidably relative' – they vary according to society, class, generation, politics – and a map therefore exists only in its inscription. Wood (2006:7) considers maps and art as constructs intended to affect behaviour, and as such they can be professed to be social but also political constructs. Artists use maps descriptively and critically. Similarly, Braidotti's cartographies are figurations of inclusive alternatives, combining critical elements with creative ones (Braidotti, 2011:219). Maps 'reflect discovery, curiosity, conflict, destruction, and they chart our transitions of power' (Garfield, 2013:18).

Qualitative research rightly speculates whether we can speak on behalf of others at all. And if so, how? Downton (2013) lists self-awareness, situatedness and reflective evaluation as ethical practices for designers and researchers alike. This subjectivity is acknowledged, yet the page (map) itself offers alternative ways of looking at information. Placed on a flat (non-hierarchical) plateau, relationships can be foregrounded, and new connections made by the viewer.

3.5.1 Nomadic ethics of affirmation

Moving beyond the classifications of postmodernism and poststructuralism, nomadic theory is based on a monistic view of matter that opposes dualistic understanding of nature versus culture in favour of the self-organising force of

living matter (Braidotti, 2011). In philosophical nomadism the object of ethical inquiry is the 'effect of truth and power that the subject's actions are likely to have upon others' (Braidotti, 2011:300). This is linked to Spinoza's classical ethics of affirmation originating in 1677, which is gained through understanding, and Deleuze's (1994) rejection of moral judgment in favour of 'ethics as the practice that cultivates affirmative modes of relation, active forces, and values' (Braidotti, 2011:300).

Braidotti's reference to a 'nomadic ethics of affirmation' relies on accountability, 'situatedness' and cartographic accuracy. Arguing back to Spinoza, this ethical position is not based on a vulnerability or lack, but rather on assets and empowerment gained through understanding. Nomadic thought considers the 'effects of truth and power that actions are likely to have upon others including external and non-human forces' (Braidotti, 2011:300). The emphasis therefore clearly lies not on the individual, but on relationships between individuals, and not in the dualistic mode of self and 'other', but as an integral part of a mutual specification and co-dependency.

The notion of co-dependency resonates with Haraway (2016), who uses the metaphor of string figures to represent the multiple (hi)stories for participants to inhabit as a means for multispecies cohabitation. Here, Haraway introduces the concept of '*sympoiesis'* as 'making-with' as a means for resilient cohabitation with 'response-ability' on a planet damaged by the 'achievements of colonial and postcolonial histories' (Haraway, 2016:10). This is an empathic approach, based on affinity but not sentimentality, as was noted by Braidotti (2006).

The notion of co-dependency is appropriate in research about craft enterprises in South Africa. A complex context in which craft enterprises could offer a means of skills development and job creation but also vulnerable to exploitation. Even though ethics consent was obtained from the two projects used as case studies in this research, most of the data collected is in the public domain. In trying to enable future possible affirmative solutions, the intention of the research is forward looking. I have endeavoured to present the material accurately and to consider

the role of power, agency, potential, affect, values, and location in the analysis, not only in the presentation of the findings, but also in terms of my position as researcher and cartographer.
Haraway aptly summarises my ethical position towards this research project:

> *It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties (Haraway, 2016:12).*

3.6 Research design.

The aim of this research was to interpret the conditions under which threats, and challenges faced by South African craft enterprises could be mitigated. To do this, a literature review was conducted in the fields of craft and design using the keywords, “craft”, “design”, and “digital” to establish a response to the research sub question: *What is the progress of research in the field of craft and design in globalised economies facilitated by digital technology?* The method used to undertake the review has been described in chapter two of this thesis. The literature review also helped identify themes pertinent to the research.

The context of the 21st century was explored through the relevant philosophy of Deleuze and Guattari and the subsequent posthuman philosophy of Braidotti’s nomadic thinking. This philosophy underpinned the conceptual framework for the research. This is discussed in the previous section of this chapter.

To answer the second sub question: *How are South African craft practitioners currently supported to mitigate the threats and challenges faced by this sector in a globalised economy?* two projects were used as case studies. The findings are presented in Chapters four and five of this thesis. A multiple (two or more) case

study is appropriate to provide “wider understandings about a phenomenon” (Bishop, 2012:589).

Two cases were used as examples to describe the support currently offered to craft practitioners. For the information to be useful the examples selected needed to be offering support to craft practitioners and should be viable operating concerns. Data was collected at the two sites purposefully selected because they both offer training and support to craft practitioners, both were started in 2001 and both could be considered as sustainable as they had been in operation for 20 years at the time of data collection. They both service large cities, namely Johannesburg and Cape Town. Data was collected from accessible and published annual reports, from my personal observation of training offered at the Johannesburg craft project’s premises, and as a participant observer in the Cape Town case.

For the personal observations, a qualitative observation schedule was used (McKechnie, 2012) to guide my observations and included headings such as the participants, the setting, the activities against which I recorded my notes,

Data was transcribed and mapped to make connections and highlight opportunities. Thematic analysis appropriate to narrative research has been used to analyse the data; however, I have not attempted to code or re-format the information presented, but rather endeavoured to map and describe, as accurately as possible, the processes as they present themselves in the data. I also tried to emphasise the power relations at play and to question the interstitial spaces created between these processes and the relationships. Quotations from participants are included to present a multi-layered account in which I do not synthesise the words of others or attempt to speak on their behalf. As I encountered these, I have mapped them. The quotations are indicated in coloured, italic text and were transcribed from interviews held, as well as from published reports and social media.

The main research question guiding this research is: *How could the threats and challenges experienced by South African craft practitioners operating in globalised digital economies be mitigated?* The findings are presented as dated narrative cartographies in keeping with a nomadic approach and constitute chapters four and five of the thesis. The findings were then mapped against the Steven's model for successful craft enterprises. An open and flexible framework is presented in mitigation of the challenges faced by South African Craft practitioners operating in globalized digital economies in the last chapter of the thesis.

3.7 Summary

In this chapter I have described examples and extracts from literature indicating that there is a strong precedent for using cartographies as research methods in design studies. By employing nomadic theory as a lens, I argued that narrative and visual cartographies are appropriate for research in complex, digitally mediated contexts like those experienced by South African craft practitioners.

A conceptual framework is hence proposed, which shifts the focus from linear outcomes-driven design processes to multi-perspectival cartographical approaches. As this is an open and flexible framework it can be used to analyse data in various contexts and as a tool to interrogate relational aspects and enable possible alternatives.

I introduce a relational cartography as a contribution to design research methods that could be used to guide the creativity inherent in design processes – while still acknowledging that multiple simultaneous alternatives are possible. This method is characterised by engaging with the notions of power, agency, potential and affect that (design) actions have on all others including non-humans.

A shift in focus from (product-based) outcomes to processes and the relational consequences thereof constitutes an ethical position that takes resilience and sustainability as its points of reference. By critically questioning motives, relationships, positions and privileges, a nomadic position is concerned with human and non-human affectivity and alterity because of relations that are empowering to 'subjects, projects, and communities' (Braidotti, 2011:304). From a lived experience point of view, this position has shaped my approach to the research as I was able to pose questions during the analysis and mapping of the data and then include the resultant possibilities (cartographies) which I present in the in the narrative.

CHAPTER 4 : FINDINGS – Case study 1, a stitch in time…

In the previous chapter I explained the research design and method as well as the philosophical approach I am using to frame this research. In this chapter I present the findings from my observations of a craft project that has been operating since 2001 in Johannesburg offering training and support to craft practitioners. The following sewing project was purposefully selected for this research as it already provides training and support to craft practitioners in South Africa. The project presented an opportunity to research South African craft enterprises in today's heterogeneous context and could be considered as a sustainable enterprise in that it has been running since 2001. Data collected at this site could offer insights to answer the research sub questions: *How are South African craft practitioners currently supported to mitigate the threats and challenges faced by this sector in a globalised economy?*

The data presented here has been collected from accessible and published annual reports, from my personal observation of training offered at the craft project's premises as well as from a series of interviews with the creative director that has been with the project since its inception. Thematic analysis appropriate to narrative research has been used to analyse the data; however, I have not attempted to code or re-format the information presented, but rather endeavoured to map and describe, as accurately as possible, the processes as they present themselves in the data. I also tried to emphasise the power relations at play and to question the interstitial spaces created between these processes and the relationships. Quotations from participants are included to present a multi-layered account in which I do not synthesise the words of others or attempt to speak on their behalf. The quotations are indicated in green italics and were transcribed from the personal interviews held with the creative director, as well as from published reports and social media.

4.1 Emerging cartography (2015 – 2018)

The project used for case study one is located on the premises of a church (Hillbrow Lutheran Church) in Hillbrow, Johannesburg, and is currently operating as one of seven programmes offered by a non-governmental organisation (NGO) supporting its immediate community. According to their website, the NGO, Outreach Foundation, is committed to offering a safe space for youth and adults in the community. Their mission includes the following objectives:

- to uplift people and address social inequality through seven support and enrichment programmes,
- a youth programme offering homework assistance, facilitated dialogue and life skills sessions,
- a computer centre offering computer literacy, software training and internet access,
- a counselling centre offering entry-level counselling and support initiatives.
- a theatre project running drama workshops for participation in productions and festivals,
- a music centre offering music tuition, theory classes and opportunities for participation in performances,
- a children's week programme, hosting recreational activities for children three times a year, and
- a craft project, which forms the selected site for this research (Outreach Foundation, 2016).

The craft project started in 2001 as a direct response to a need for job creation. The NGO offered unemployed women the opportunity to use their sewing skills to earn money. Using donated sewing machines and fabrics, a group of women started making placemats and bags at the premises of Hillbrow Lutheran Church. In this initial phase, products were not selling. Creative input was therefore sought and a consultant with a visual arts background was brought in to carry out creative

training and assist the project. These early experiences were remembered and described by one of the staff in the quotations included below:

> *The lady arrived, she was white; we were hesitant … and then she would make us draw and most of us hated it, we didn't want to draw … (Outreach Foundation, 2016).*

Initially the training took place on a weekly basis by exploring themes from daily life through conversations and drawing. These themes became subject matter for embroideries which were later sewn onto bags and cushion covers for sale at markets.

> *We had a table; we exhibited some of our bags. There were tourists who kept coming and buying our bags and cushions... Then we realised we can make a living from this (Outreach Foundation, 2016).*

It is evident from these quotations that in the beginning there was an element of distrust. The initial approach to use design and visual arts training methods (such as drawing as a basis for developing subject matter), was met with resistance. In addition, there was distrust on racial grounds due to political, historical lack of access to education and training. Only after the benefits were made visible and tangible by the positive response from the public to the products, was this process embraced. As these products became sought-after, a part of the income generated was used to purchase more materials and the balance of the proceeds went to the women who crafted them – and the sewing project was born.

Eighteen years later, the craft project employs five staff members consisting of a creative director (the same facilitator that was originally brought in to assist with product ideation) two coordinators that have been part of the project since its

inception, and three facilitators. The craft project continues to run from the same premises as in the beginning, enabling crafters to access materials so that they can make objects for sale at markets and in retail outlets. Basic craft skills are taught to cohorts of youth wanting to learn creative skills. The project also undertakes commissioned pieces for which craft practitioners (mostly alumni) are invited to participate according to their expertise.

4.2 Skills development

The project contributes to skills development by offering arts and craft training at no cost to groups of up to 20 students wanting to join. Most students are young and of school-leaving age and have either had no exposure to arts training in the education system or have no prospects of further study. Refugees from neighbouring countries and street children who desire to access skills training but lack the funding or secondary education to enter mainstream tertiary education, are also accommodated. These attendees can be as young as fourteen (14) and sometimes have little or no formal schooling.

> *Some have never been to school, either refugee kids or street children, so with no school training, there is a huge gap in their education on all levels. A lot of fine motor skills are completely missing (Luttich, 2015).*

The training runs on a six-month programme and covers various craft skills such as, but not limited to basic hand sewing, quilting and embroidery, machine-sewing, knitting, crocheting, weaving, screen printing and mosaic work. Training starts with each participant making themselves some small items such as a needle-book, a pincushion, an apron, and a bag using recycled materials. Students are encouraged to look to their daily lives and immediate surroundings to explore themes which can be used in their crafts. Initial training is based on storytelling and learning to visually express their thoughts and ideas.

The first month is about creative thinking: How do you start? What do you draw your stories from? Just to encourage people to think about their journey into Hillbrow, or how did they arrive in Hillbrow, why are they there? Also, about creative writing skills, (we) create mind maps, exchange stories with each other and these stories sometimes become really incredible embroideries. We try and encourage a lot of oral history or oral storytelling techniques, the moment we insist on writing skills it is more difficult as people don't have writing skills (Luttich, 2015).

As the training progresses, different crafts are being explored in project-based format. These projects are often centred around a theme: it could be an event in the community in the news, or themes which the students bring with them into the studio. At times the projects are based on commissioned pieces from clients.

They each do their own design and choice of colour. We guide, there is peer evaluation and everyone has to sew up their bag, it is time-consuming (Luttich, 2015).

At the time of data collection, the training program employed a year-long curriculum which is reviewed annually. Table 1 below indicates the content of the 2015 actual curriculum, incorporating basic skills with commissions or special theme projects. (I have added the column on the right indicating the skill or process associated with the activities). In 2015, the "Karros vir die Karoo" was one such special project that centred on the creation of awareness about fracking in the Karoo. The blankets were then exhibited and sold.

Table 4: Curriculum outline, 2015. (Outreach Foundation, Hillbrow)

	Craft	Project Description	Crafted Product	Skill/Process
1	Embroidery Basic Sewing Skills	Introduce hand embroidery Sewing machine use, cleaning and care	1. Pincushion 2. Sewing booklet for needles 3. Quilted Cushion 4. Table Mats/Cloths	Hand sewing/storytelling Machine sewing/trial and error
2	Weaving Tie Dye Cushions and Bags	Make weaving frame Weaving with waste material (plastic waste) Tie Dye to create fabrics Mapping home	1. Cushion Covers 2. Create fabric for tablecloths and shoe-bags 3. Mapping Home Workshop	Reuse Recycle Mapping Reflection Recollection Storytelling
3	Knitting Crochet	Scarves Crochet small bags/blankets/small flowers	1. Scarves 2. Small bags/blankets/small flowers	Knitting / productivity / team work Creativity
4	Sewing Quilting	Complete embroideries, bags, skirts and aprons	1. Bags 2. Skirts 3. Aprons	Hand and machine sewing / Fine motor skills, Planning
5	Waste material	Create product Make art from found objects	Traditional Outfit for Heritage Day	Reuse Recycle Repair / Innovate
6	Blankets	*Karros vir die Karoo* Group project	Quilted blankets	Visualisation Teamwork
7	Product development Product manufacture	Produce for the months of November/December	Attend Markets	Preparation Planning Inventory Communication

				Productivity
8	Marketing	Understand clients, Relationships and define boundaries	Attend Markets	Sales Networking Negotiation Display
9	Certificates	Ceremony	Dates to be confirmed	

The crafts taught during the training are neither traditional nor cultural; the students coming to the centre have never been exposed to crafts, and their parents in turn also have not been craft practitioners. In this instance, the craft is seen is a way of earning an income, using skills that are relatively easy to learn, although they take a lot of time to master and execute to a high standard required to be able to sell them.

> *They have no (craft) skills, students are taught from scratch, the work is contemporary and related to events from daily life and culture (Luttich, 2015).*

Time during the week is allowed for students to take part in computer training, which is offered by another programme on the premises.

> *Because we have a computer school on the premises, we insist that they have to do three months basic Microsoft skills, to set up a CV, write an email (Luttich, 2015).*

On one of the days that I observed the training, embroidery was being taught. What follows is an excerpt from my observation notes:

> After a short discussion, photocopies of printed instructions of embroidery stitches were passed around and participants started to embroider. The objective for the day was that each participant was to learn and practice one new stitch and then embroider the image of a teacup onto a piece of fabric provided. Everyone worked, some sat in smaller groups and conversation flowed while they were sewing. At one point, a younger member of the group was sent on an errand to buy ingredients and then prepared food that was shared amongst the students at lunchtime. After lunch everyone carried on working and by the afternoon each of the participants had produced one "sampler", an embroidered teacup on a piece of fabric. Some participants worked faster than others and although some participants might have finished quickly, each person only made one teacup sampler today (Di Ruvo, 2015).

Each participant started with a similar picture as per the one indicated in the photograph below, yet it can be noted that the finished products are different and have an individual character that could appeal to the buyer of a handmade product.

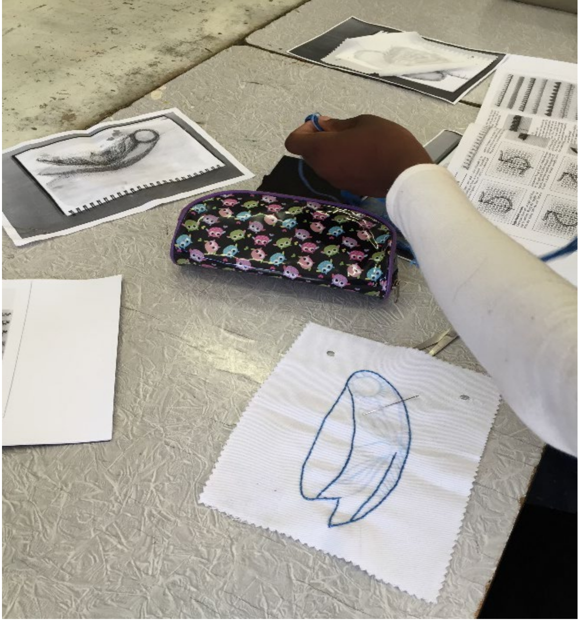

Figure 4.1: Teacups embroidered by the students based on a drawing (Photographs Di Ruvo, 2015).

Nothing goes to waste and all the work gets utilised towards other products, for example, these squares could in future become part of a quilt or a placemat to be sold at a market. In addition to the training of skills the project also provides access to market and materials for practising craft practitioners and project alumni, undertakes commissions for clients and participates in community workshops.

Figure 4.2: Samplers used as part of a quilt for sale at a market (Photograph Luttich, 2015).

The training is hands-on and learning occurs through observation, following the example of skilled practitioners through trial and error. The learning is also project-based and workshops are held to teach a specific craft skill around an underpinning theme, or to complete a commission, or around an intervention in a community. Other skills are also taught through the project-based approach, such as teamwork and marketing skills for selling products to members of the public at market stalls.

> *The themes sometimes occur as reactions to what people come to the project with. Sometimes it's a bit of a knee jerk response to their social environment, so for instance when the xenophobic attacks took place in 2008 there was a lot of anger and resentment from South Africans towards*

the foreigners and it was growing as Boitumelo was having a huge influx of foreigners desperately seeking anything (Luttich, 2015).

The reality of dealing with difficult circumstances in daily life, once again came to the fore in September 2019 when these messages were posted on Facebook in response to the ongoing xenophobic attacks:

Figure 4.3: Facebook, Erica Luttich.

At times, pre-ordered commissioned pieces will form the basis for the training to take place. Over the years there have been numerous commissions ranging from mosaic panels commissioned by architects and designers for use in parks or buildings to the sewing of fabrics and tapestries, quilts, knitting and weaving. For these projects experienced crafters are called in to work on these projects with the students. The projects are quoted for and once approved, the practitioners of the craft are remunerated from the income generated by the project. This creates an opportunity for students to learn from the more experienced craft practitioners.

I like that the crafters come into the projects, peer teaching (Luttich, 2015).

Figure 4.4: Experienced knitter working on commissioned knitwear seen here on a ramp model (Photographs Luttich, 2017).

Over the years the project has developed, and the role of the creative director has been to secure commissions for work but also to make applications for funded

projects in communities. These projects, usually taking the format of participatory workshops and differ from the traditional model of the craft enterprise as presented by Stevens (2007). The workshops focus primarily on the process. The outcome may not necessarily be an immediately sellable artefact, but could be an installation raising awareness, however the methods and images generated could possibly inform products in future. Another outcome of these workshops are connections made with people in other communities and potential transfer of skills either way made possible during these inter-actions. For example, the image included below is from a weaving workshop done with school children as an activity for the Josi Book Fair, the artefact was collaboratively woven by the children and then displayed.

Figure 4.5: Weaving stories for the Jozi Book Fair 2019 (Photograph Luttich, 2019).

A project done in Matjiesfontein in 2015 is an example of a participatory project within a community. These workshops are usually facilitated around a theme and include collaborations with other multidisciplinary artists. Participatory design

processes are used to encourage ideation and future implementation and often more than one workshop will take place with a certain group to ensure continuity. As the projects are externally funded, reports are kept on the work done and the level of participation as well as the outcomes reached.

> *All participants in the Matjiesfontein workshops were coloured or Khoi San descendants comprising 55 women, 48 children, 32 young men and 11 male artists (Outreach Foundation, 2015).*

4.3 Access to market

Students are expected to attend markets, set up and oversee the stands to sell products. In this way, trainees are exposed to other products that are being made and sold by competitors, they learn to respond to clients and gain experience in aspects of professional practice such as negotiation skills, taking orders and doing monetary transactions.

> *They have to attend 5 events a year. They have to merchandise, run the float, and then see why people buy and why not? Why people walk passed (Luttich, 2016)?*

Once the period of training is complete, a product exhibition is held, serving not only as an opportunity to present the students with certificates but also to market and sell products. On completion, students' will have a portfolio of work, which they can use to access other educational programmes or in some instances, the students continue with their own craft production facilitated by the project.

Alumni make use of this opportunity and continue to visit the project on an ad-hoc basis. Anyone can work on products by requesting materials, which usually consist of a piece of pre-cut fabric and some embroidery cotton, fabric for quilts or wool for knitted blankets. Alumni also develop their personal areas of interest and then make products for sale through the project. The products produced at the project are sold at markets and exhibitions as well as in retail outlets. Once the goods are

sold, a portion of the proceeds are kept to purchase more materials and pay for market stalls etc., the balance is paid over to the craft practitioners.

> *They get two thirds and the project gets one-third of the proceeds of the sale of the goods. This is generous as most projects work the other way. That makes more business sense (Luttich, 2015).*

The model described in the quotation above is only viable as the project receives some funding from the Government and mostly from private institutions. Crafters receive a fixed price for certain of the standard items such as a cushion cover or an A5 flat embroidered image. The crafters only get paid when the product is sold, as the project does not have the funds to buy the completed products upfront. The craftsperson does therefore not receive payment for the product until such product is sold. In doing so, there is no financial risk for the craftsperson who can access materials upfront or the project, as they only pay for the workmanship once the product is sold.

Emphasis is placed on the emotional support and wellbeing of the individual group members as many of the participants are from a financially disadvantaged backgrounds and could be considered as vulnerable individuals. The support offered to craft practitioners participating in the program extends beyond providing access to materials, assisting them to face their daily challenges in survival. This support remains long after participants have finished their training.

> *Women (in the group) struggle a lot – they often sleep without eating, but they feel free to talk when they are here at the project. The women help each other where they can. Once a month we have a bring and share so that those without food can eat. We contribute R10 when there is a death in the family for funeral costs etc. and as support (Boitumelo, a participant at Outreach Foundation, 2015).*

Figure 4.6: Stitching Stories (Photograph Luttich, 2019).

This quotation speaks to the support offered to each other through the culture of African communitarianism or “ubuntu”, which is premised on the contemporaneity of the individual within the community and therefore the individual’s subjectivity is co-substantively constituted (Eze, 2008). Although the two philosophies are different, there is some alignment in the acknowledgement of the individual as part of a community and a mutually beneficial relationship. Braidotti (2010) explains this as follows:

> The nomadic vision of the subject as a time continuum and a collective assemblage implies a double commitment, on the one hand to processes of change and the other to a strong sense of community – of our being in *this* together. Our co-presence, that is to say, the simultaneity of our being in the world together sets the tune for the ethics of our interaction. Our ethical relation requires us to synchronize the perception and

> anticipation of our shared, common condition. A collectively distributed consciousness emerges from this i.e., a transversal form of non-synthetic understanding of the relational bond that connects us. This places the relation at the centre of both the ethics and the epistemic structures and strategies of the subject (Braidotti, 2010:210).

4.4 Business model

The business model is tiered, as there are different streams within the project. The project is primarily funded to offer training and support; the students can attend at no cost, they are, however, expected to see the training through. The Lutheran Church provides the premises and private funding is applied for on a three-year (3) cycle to cover operational costs. The project also obtains local funding specifically for arts, education and environmental projects. These projects benefit the sewing project but also the participating communities. In 2017, funding received from the Department of Arts and Culture (DAC) was used to build a studio/workroom for the project (Luttich, 2017). Products are made for distribution and sale by the participants at local markets and the proceeds are divided. When the project started, 60% went to the craftsperson and 40% to the project. This has since changed and crafts-people receive 30% of the proceeds.

> *We do a formal application (for funding) every three years. At the end of every year, there is a qualitative and quantitative report, we focus on demographics, how many participants, how many school children and age groups (Luttich, 2015).*

Annual reports are prepared by the creative director of the programme and the project is expected to report to the funders regarding participant numbers, demographics, creative outcomes and stakeholder impact.

All our participants hailed from this continent and many from north of our borders – 37 participants, of whom 33 were women and four men, and our 18 crafters were all women. Group of Hope – four young girls who joined us from House of Hope in Hillbrow/Berea are part of a partnership we agreed upon some years ago. These girls have little or no contact with their families and have not been able to complete formal schooling. By being part of the Boitumelo team, they learn skills, have access to mother figures, especially from the female crafters, and learn not only art/craft skills, but most importantly life skills, self-esteem and establish connectivity to others. Women from Tswelopelo Frail Care Centre (two white, three coloured and one black) also participated in our programme (Outreach Foundation, 2015).

Money and access to funding emerged as the most challenging factors for the sustainability and viability of this community-based project. Participants face further challenges such as time to dedicate to the craft and money for transport costs to attend the workshops. At the project meetings and workshops, tea and coffee are provided, and on certain workshop days' food is also prepared for consumption by the participants. On occasion, participants will also contribute towards buying and preparing food to share, which shows the social commitment favouring this project.

Survival is just such an issue, people have incredibly complicated lives and the demands of husbands and families are huge (Luttich, 2015).

In contrast to the examples in literature that focus on developed markets, craft practitioners as hobbyists or as master crafters with an economic focus, this particular project focusses on community upliftment and subsistence crafters. The support offered to craft practitioners extends beyond the provision of access to

materials and markets, but also includes emotional support through the group. It is this social aspect that sets this project apart. In global literature, a trend toward digitally-mediated platforms fulfilling this support role in craft communities has been identified; regardless, at this project this still remains a physical interaction.

> *Even the crafters that have the skills (that can go home and work for weeks on their own and only need to come in to use the machine) yet they come in on a Saturday because they like to come in. It becomes the "old place for collecting the water" where ideas are shared…The social need never goes, but on a work level, I think people can get to a level where they don't need to come in for the material if they start selling enough product. (Luttich, 2017).*

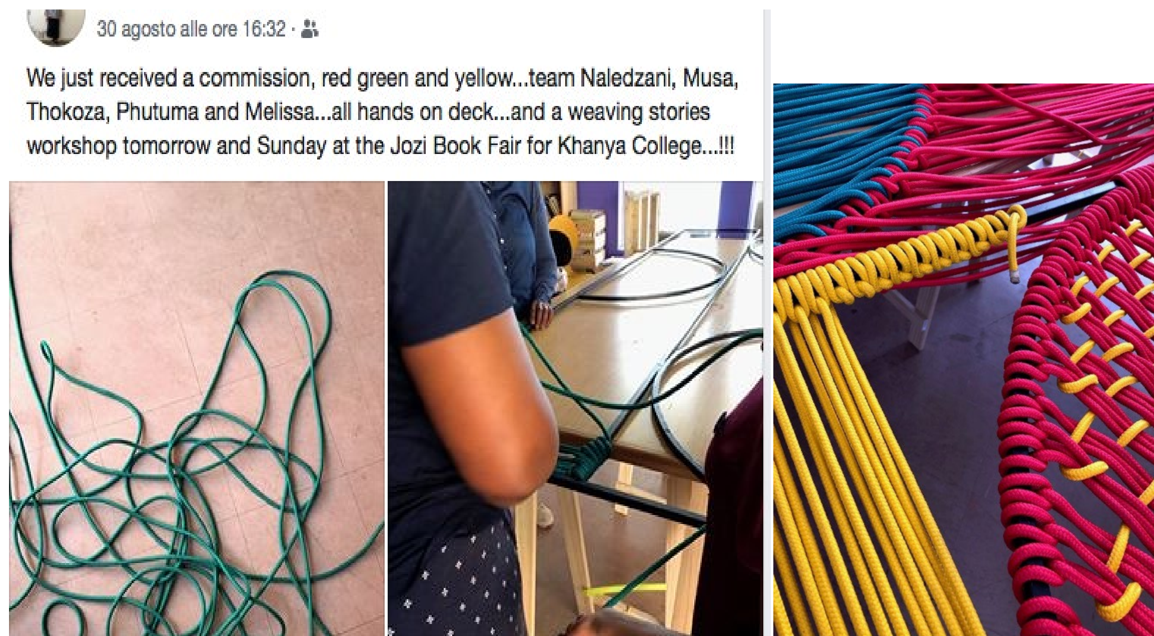

Figure 4.7: Weaving commission for a client (Photographs Luttich, 2019).

4.5 Becoming resilient

Based on the cartography presented of this craft enterprise, in the next section, I discuss the findings according to the threats and challenges identified by Stevens (2007)

4.5.1 Withdrawal of the project leader, despite succession plans the current model places most of the authority with one or two individuals (Stevens, 2007:331).

In this project, the creative director was brought into the project to assist with the ideation of products. The members in the project were initially hesitant; this could have been due to historical racial bias, exacerbated by an imbalance of access to knowledge, formal art training and the implied position of privilege. Storytelling provides the opportunity for sharing of stories, not privileging the written, and acknowledging that each participant has a story to tell and an opinion to share, could have mitigated this initial hesitation. In this instance, although there was a person brought in into a position of power, this was assuaged through an open process giving each participant agency in exploring their own designs and enabling each participant to have a voice. In turn, this unlocked potential for innovation.

Using storytelling and drawing as a means of conceptualising new subject matter, a range of products was started to which customers responded positively. In this instance, the focus of the training was on the development of a process through storytelling and drawing, rather than on focussing on the final artefact. This approach provides the project with a process to ensure the authenticity of the subject matter and by extension, innovative products. By learning the process, the craft practitioner should be able to apply this in future, even if the creative director is no longer there. Having some training in this method is important for the products to remain up to date and relevant and someone with these skills would always be required.

In a similar vein, the workshops taking place in communities focus on participatory processes rather than on a specific outcome. In these examples, we have seen the role of the creative director shift from that of designer of artefacts to be manufactured by others as per the traditional craft model, to that of a facilitator engaging participants in a generative (productive) process. This process-driven approach enables flexibility and resilience appropriate to fast-changing contexts. The shift in role of the creative director resonates with literature confirming that in a technologically mediated world, the boundaries between artist, craftsman, maker, and designer have blurred (Shiner, 2012). Once again, this does not however remove the need for the facilitator in the process.

Due to daily difficult circumstances, not all people are able to spend years developing creative skills and a more pragmatic approach is to work with a creatively trained person in an inclusive participatory way. Through collaborations with multidisciplinary artists, the ideation of new products can occur with more than one person at a time, and the creative director can gradually step back and mentor new facilitators to take over the role. The shift plays out in the role of the creative director being responsible for ideation of products, to that of a creative facilitator, fostering and enabling creative collaboration. An alternative is therefore possible; if the creative director leaves, the project could seek to collaborate with other skilled visual artists. In this model, there would no longer be one creative director but infinite possibilities for collaboration in mutually beneficial projects. This resonates with Haraway's notion of sympoiesis or "making - with" (Haraway, 2016 :58).

The project facilitates digital skills so that participants can access the internet and gain awareness of products, technology, and access online craft communities. This resonates with literature regarding the role of technology and online platforms that now serve as "virtual guilds" (Bonnani, 2010).

Should the creative director leave, the project would certainly be more vulnerable, but if the processes are upheld by management, the ideation of authentic material should still be able to continue. The creative director's networking skills and the ability to make contacts and maintain strategic relationships emerge as a focus area for development and improvement. Unlike the traditional craft master leading by example, more resilient and empowered craftspeople could continue to seek authentic work through their practice, experience, and future face-to-face as well as online (digitally mediated) collaborations.

4.5.3 Responding to changing consumer markets and trends (Stevens, 2007:331).

The project has a degree of flexibility in its approach to products made for sale: these are informed by the daily lifestyle of the participants, topics are informed by social concerns in communities which are used as themes around which the training will take place, through themes emerging from commissioned pieces or in response to public reaction at markets. The diversity of the interactions between the project and its clients ensures variety in the types of outcomes even though some of the techniques remain the same.

Product ranges are constantly changing and updated as the subject matter is informed by trending social themes and the daily experiences of the participants. The types of manufactured products also change, although not as frequently; when the project started in 2001, placemats were made; when I visited the project in 2015, cell phone and tablet covers were part of the range of standard products being made. Apart from the acknowledgement that students need to be able to use computers for basic communication and research purposes, digital technology is not yet utilised as a part of "making" in this project. As access to affordable mobile technologies increases, so too will the access to global visual content increase with platforms such as Pinterest and Instagram gaining popularity amongst creative practitioners.

The success of this project is based on everyday objects being made and interpreted in an authentic way rather than on innovation of new products. This resonates with literature indicating that in the digital age, authenticity can take on different dimensions and is process-driven rather than artefact focussed (Loh, Burry & Wagenfeld, 2016). This authenticity is based on what participants bring with them in terms of their personal stories, experiences and daily circumstances rather than responding only to consumer trends.

4.5.4 Staff turnover, empowered craft workers may seek alternate employment or develop their enterprises (Stevens, 2007:331).

This specific project differs from craft enterprises in the sense that it does not only produce products for sale. The project focusses on offering skills training to people unable to access formal or similar training elsewhere – therefore, in this model, craft workers are encouraged to seek employment or to be empowered to become independent craft practitioners.

The diversified model with more than one revenue stream offers the project a degree of resilience. The same three staff members have formed the core staff since its inception; should a member leave, it is hoped that the others would remain and ensure some continuity. New staff members emerge from the alumni and sometimes work as facilitators. Alumni also return to the project on a Saturday, offering peer support to other members in the project and leading by example. In return, they are offered support with access to materials and to markets. Once again, there is a reciprocal relationship that takes place between the project and the participants. The sustainability of the project is ensured, as there are always new trainees in the project who can produce articles for sale at markets.

4.5.5 Mass market imitations of craft products (Stevens, 2007:341).

This is a significant challenge and the project mitigates against this by changing their product lines, but some signature products have been in demand for years and continue to be good sellers, such as scatter cushion-covers and fabric shopping-bags. The project is not able to compete on price, and therefore products need to stand out and be perceived by the purchaser as being desirable, either because of the provenance, being handmade or through technical proficiency. This resonates with the findings by Stevens (2007).

5.5.6 Business skills shortages (Stevens, 2007:341).

In a capitalist market, there is an expectation for a project to be financially viable (profitable) or at the very least, self-sustaining. The Hillbrow case study under discussion, however, is an example of a project that is not financially self-sufficient and yet has been sustainable since 2001. The funding model does not fall directly into the return on investment model of a successful business, the project is also not likely to become self-sustaining as property and operating costs are subsidised.

Companies fund the project as part of their community engagement portfolio as a contribution to skills development: an investment which can be claimed back or written off against taxes. In this instance, there is a degree of indirect government subsidisation. It could be argued that this causes dependency, yet there is a mutual benefit in such a symbiotic relationship which allows the craft practitioners to earn a small income whilst benefactors gain benefits and credibility in other ways. The project operates according to a value system other than that of mere accumulation of money as capital and acknowledges social capital as part of its operating model. In globalised digital economies, networking and the ability to form links, to negotiate and to maintain relationships are all important. The project's relational

business model relies on different skillsets from the business skills mentioned in the Steven’s (2017) model – yet this would still pose a threat if these new skills are not upheld.

One prominent observation emerging from the observation and interviews is that there is a tendency for the group to work to the speed of the slowest person in the group. This tendency to work to the [s]lowest denominator could be attributed to the principle that by working to the level of the weakest member of the group, no member feels inadequate or is denied the opportunity to contribute. Therefore, by protecting the group as a whole, the interests of each individual are protected. Interestingly, this does not seem to apply to very strong craftspeople who tend to leave the group and work from home, visiting the project to obtain materials and hand in completed work for sale at markets.

The protection of the individual within the group speaks to the African notion of “Ubuntu”, and it also references the reciprocity between the project and the community that supports it. In advanced capitalism, this could be perceived as being counter-intuitive: why not make more units and increase the potential for profit in the same amount of time? Yet in this instance, the protection of the group as a whole takes precedence, as without the group there would be no project. This is a philosophical position strongly embedded in African tradition and resonates with a nomadic ethical position.

4.5.7 Organisational structures can be seen as exploitative, stereotyping as craft as other than art (Stevens, 2007:331).

The format of the training, although relaxed and collegial, was still hierarchical. The facilitators are looked up to for guidance and older, more experienced practitioners are seen to give instructions to the junior craft trainees. This could be equated to the traditional model of the craft master and the apprentice.

Evident in this project are the ongoing workshops and exposure to communities and artists. The organizational structures in such craft enterprises may in future be seen as the exploitation of the craft workers by the leaders, buyers and even tourists. For example, the stereotyping of the craft of the ‘other’ as spectacle may be seen as a continuing form of racism. It may also be seen to promote continuing dependency. Social businesses such as these, and in fact all developmental work, are complex in their uneven power relations and roles. The creative director who is responsible for conceptualizing the projects and for obtaining donor funding and responding to calls for commissioned orders is a visual artist with formal training in the arts and there is an imbalance with regard to educational background in relation to the other staff on the project. This is alleviated through peer-to-peer teaching by alumni of the project; opportunities for training which are offered to staff, to a degree with the collaborations with other artists; and with the participatory workshops which take place in communities, often in collaboration with other creative parties.

4.6 Summary

Traditional craft projects are undoubtedly vulnerable in a globalised world. Niedderer and Townsend (2015) call for resilient approaches, meaning that craft must adapt to a context that is changing fast; one in which people’s relationships with objects and experiences are also changing. In South Africa, there is still subsistence craft and less access to the digital platforms which globally act as “virtual guilds” for training as well as access to markets.

The notion of intangible cultural heritage has also changed – as craft skills and as heritage are no longer passed down from generation to generation, interested students come with no skills or arts background. At this project, this is viewed as an opportunity to develop creative skill, personal expression, creative exploration

and a means of accessing further creative higher education or generating some income in the absence of formal employment.

Based on the cartography presented here, a nomadic approach to the support was noted. The craft practitioner is always on a continuum of becoming craftsperson; as the project becomes sustainable, it is always in flux as projects are undertaken and while students enter and leave as their needs demand. The project is dependent on the connections and symbiotic relationships forged between participants, with clients and sponsors. This process is underpinned by the ethical position of communitarian "Ubuntu" in African philosophy which resonates with nomadic ethics of difference (Braidotti, 2011), in that "we are one, but we are not the same", acknowledging the individual but always remaining a part of a larger network.

The findings resonate with the literature in respect to alternative approaches that can mitigate the challenges faced by craft practitioners. There is potential for this project to develop an alternative offering to the normative economic business models underpinned by Western advanced capitalism. Outreach projects in communities that are currently externally funded, offer alternative kinds of training opportunities, and are aligned to the development of creative and problem-solving skills through community participatory workshops and other design thinking methods could assist to mitigate challenges as and when they arise.

> Western culture needs to listen to indigenous people – in their ideas of cyclical time, time is constantly restored, nature sustained, and sustaining others. These are the very ideas the world needs most (Griffiths, 2005).

5. Chapter five: Case Study 2- Design Thinking, snake oil or cure?

"The real voyage of discovery consists not in seeing new landscapes, but in having new eyes." — *Marcel Proust*

In Chapter four, I present the findings from my observations of a craft project that has been operating since 2001 in Johannesburg offering training and support to craft practitioners. Similarly in this chapter, I present findings from the second case study, purposefully selected because it has remained operational over an extended period of time. Data collected at this site could offer insights to answer the research sub questions: *How are South African craft practitioners currently supported to mitigate the threats and challenges faced by this sector in a globalised economy?*

The title of this chapter references the critique regarding blanket approaches to problem solving by using design methods as a "cure-all". The study of craft and design has been closely associated since the inception of Design Studies in the mid twentieth century. A literature review in the fields of craft and design (Di Ruvo & Cronje, 2017) indicates that due to technological advancements, the boundaries between these two fields have blurred. Globally there has been a documented trend towards smaller scale production in response to the environmental crisis. Moritsch (2018: 8-11) points out that the group of entrepreneur designer-makers that has emerged are skilled to operate equally across the "threefold role of designer, manufacturer and marketer". In this context, apart from "implicit practical knowledge in the handling of materials" the maker is expected to be proficient in self-presentation and networking across numerous digital platforms (Wanka & Pintsuk-Christof, 2018: 17). By the same token, the craftsperson operating in a post digital context is expected to be able to do the same. Digitalization has transformed not only techniques and manufacturing processes but also access to market and dissemination of products.

In the South African craft sector, although digital technologies and design methods are becoming increasingly available there is still broad disparity regarding access-to and making-with technology. There are still many craft practitioners operating at a survivalist level to eke out a living. In this chapter, I describe research that was initiated by asking - how are South African craft practitioners currently supported to mitigate the threats and challenges faced by this sector in a globalised digital economy?

5.1 The CDI

Research in the field of SA craft and design would not be complete without looking to the work of the Craft and Design Institute (CDI). The Western Cape Craft Audit (2000) was commissioned as a baseline from which government, NGOs and other development organisations could stimulate and promote the craft sector. The report indicated potential for growth aligned to demand for local products aimed at the tourism industry, it was found that the sector was racially divided, highlighting difference in access to materials, public transport infrastructure and marketing. Weaknesses in production including product development, design and manufacture were also identified.

A craft development strategy was thus proposed which sought to address the co-ordination of training, product development, market access and business support. This informed the founding of the Cape Craft and Design Institute (CCDI) in November 2001 on the premises of the Cape Peninsula University of Technology with start-up funding from the Department of Arts and Culture in support of government's investment into skills development and job creation as a means to poverty alleviation (CCDI, 2011:8).

The proceeding years were marked by growth in membership, visibility of the sector through exhibitions and the number of retail outlets stocking locally made products, but challenges such as access to materials and access to capital for growth and competition from cheap imports remained a concern for craft

practitioners (CCDI, 2011:9). These challenges were also documented by authors such as Gaylard (2004) and Stevens (2007). Gaylard (2004: 29) cautioned against the reduction of craft to “money and work” by privileging an economic bottom line in the government's thinking and assuming that investment must translate into self-sustaining businesses. He called for the “emergence of a more nuanced and context sensitive framework.” Stevens identified threats and challenges to this sector listed below and which are used as headings for discussion later in this paper (Stevens, 2007:331):

- Withdrawal of the project leader, despite succession plans the current model places most of the authority with one or two individuals.
- Staff turnover, empowered craft workers may seek alternate employment or develop their enterprises.
- Responding to changing consumer markets and trends.
- Mass market imitations of craft products.
- Business skills shortages.
- Organisational structures can be seen as exploitative, stereotyping of craft as other than art.
- Lack of innovation.
- Mass market imitations.

At the CCDI, pilot projects were used to test a “business focused, market driven” approach with which to “unlock sustainability”, this still forms the basis of the training and support offered to craft enterprises (CCDI, 2011: 16). The pilot projects undertaken indicated that strong leadership in addition to skills and resources was critical to a successful craft enterprise. Business principles such as a marketable product, accurate pricing, targeted marketing, and effective distribution were also found to be indispensable.

The CCDI developed a three-pronged approach to supporting craft enterprises, based on product, business and market support that continues to the present day. This approach resonates with the model presented by Stevens (2007) for

successful craft enterprises in South Africa. Stevens developed this model by looking to the historic practice of William Morris, this model focuses on design, labour, and business.

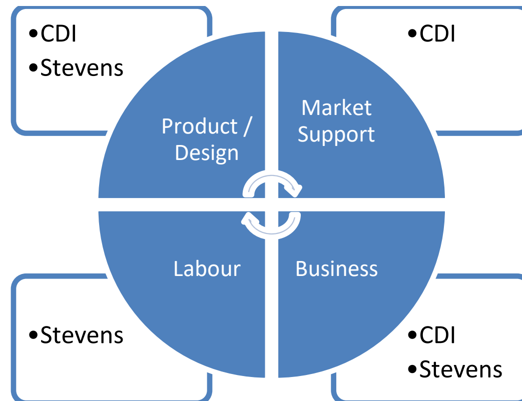

FIGURE 5. 2 MAPPING THE CDI FRAMEWORK TO THE STEVEN'S (2007) MODEL

In 2006, product development was further facilitated by the opening of a “Fab lab” funded by the Department of Science and Technology in collaboration with the Centre for Bits and Atoms at the Massachusetts Institute of Technology. Fab Labs were conceived as spaces where community members could have free access to computer-controlled machines using open access software to be able to make their own technology enabled products or artefacts. Computerised numerically controlled machines such as a flat-bed laser cutter, a milling machine, and 3D printers were made available to the public by appointment. The CCDI found that not all the equipment was fully utilised by its members and that some of the equipment was “difficult to engage with” and “too far removed from their daily experience” (CCDI, 2011:98). The product development facility has since been adapted to incorporate other tools and equipment for craft practitioners to use for prototyping and product development. Here members can access computers, software and specialized machinery with which to develop and prototype ideas

using various equipment, including but not limited to: sewing machines, mould-making and casting equipment, wood working as well as a metal working tools.

At the CCDI Marketing opportunities were facilitated where craft practitioners could exhibit products at craft markets, exhibitions, and trade fairs both locally and internationally under the South African Handmade collection brand. (CCDI, 2011:26-27). Training was offered to assist small enterprises in scaling up their production so that they could meet the demand if orders were secured.

By 2010 the CCDI had developed training modules grouped according to themes of business, product, and market support as opposed to the longer, less flexible SETA aligned skills training courses developed at inception. A workshop format allowed for flexibility, so that practitioners could choose which areas of their business they would like to develop. The shorter format made it easier for people to attend whilst still working or running their businesses (CCDI, 2011: 36-37).

In 2013, in keeping with the Department of Arts and Culture (DAC) Strategic Plan for 2011-2016 (DAC 2010:36-27) the link between craft and design is further acknowledged by the Western Cape government as focus shifted towards design as a driver for social and economic change (de Lille, 2015). The CCDI was tasked with the implementation of a design strategy for the province using design as a driver for economic growth. This led to the commissioning of the following reports by the CCDI: Analysis of the Western Cape design industry (CCDIa, 2014), Design as an enabler of economic development (CCDIb, 2014), Design: driving competitive advantage in the Western Cape (CCDIc, 2014) and the Western Cape Design strategy (CCDId, 2014).

In 2017 the name was changed to the Craft and Design Institute (CDI), dropping the “Cape” from the title as the institute would be implementing a design strategy nationally. Current services include product, marketing, and business support workshops, talks, special projects, seed funding opportunities, and online resources. All services are accessible via the website available at

www.thecdi.org.za. To avoid confusion in the rest of this article I only refer to the old name (CCDI) when referencing data collected prior to the name change.

The Stevens' (2007) model and the one used by the CDI, have essentially remained unchanged since the onset of the industrial age and, although not originally intended as such, in practice respond well to a capitalist market of supply and demand for profit. Stevens concedes that the Victorian model of Morris and Co. offers no guidelines for enterprises operating in a globalised economy (2007:649); and in response, in this research I explore alternative approaches towards resilience in South African craft enterprises in this context.

5.2 Method

To explore the support offered to South African craft practitioners in mitigation of the threats and challenges faced by this sector, a review of literature in the field of design studies is discussed with findings of data collected. Using a purposive sample, data was collected though participant observation and analysis of textual data available in published reports and on online sources. Consent was obtained to collect data from then CCDI and all of the data presented here is in the public domain and is openly accessible. In keeping with nomadic theory, the resultant data was mapped to forefront relationships, including but not limited to power, agency, potential and affect as explained in Chapter three..

In the following section I describe observations made as a participant observer at eight workshops I attended at the CCDI in Cape Town. Some notes from my journals, and sketches made as part of the workshops are also included here and highlighted in coloured font.

5.3 Emergent cartography 2015 - 2019

The bag lady and the one+1 label.

> *"The bag lady"- a nickname I was given by colleagues as I was always carrying bags of work around to fulfil the work roles I was engaged in at the time. Always carrying sketchbooks, notebooks, lists, and planners resulted in a not too modest collection of handbags. The bag lady is also a lady that*

> *makes bags, or rather would like to make bags, ideas, and sketches that I have been working on for a few years and perhaps are now worth exploring… If only I had the time. (Journal entry. Di Ruvo, 2015).*

The excerpt from the first entry in my research journal included above indicates my intentions regarding data collection, first hand, as a participant observer I would use the opportunity to develop a product that I had been thinking about for some time. An opportunity to observe and document the journey of a crafts practitioner and what better way than through the eyes, hands, and heart of "the bag lady".

The CCDI was accessible by visiting the premises which at the time were located in Harrington Street and making a booking, now this process takes place online. Anyone can access training workshops by first registering as a member. Membership is free. Personal data is captured via the website and then invitations to workshops and newsletters are emailed to members. In 2015 the average price of a workshop was R30, in 2019 the cost of workshops ranged from R100 to R250 (www.the cdi.org,za) although the cost can be subsidised upon request for those that cannot afford to pay the fee.

I went to the then CCDI premises, and obtained a programme of available training opportunities and upcoming events. An initial consultation was recommended and, using the "CCDI business consultation tool" consisting of a wheel printed on a sheet of paper to guide the conversation with a facilitator, the craftsperson can assess where they would require assistance, guidance, or mentoring. The CCDI business consultation tool works as an aid to reflection and discussion based on the following headings: individual capacity, strategic vision, production capacity, sales distribution and marketing, business systems and HR, financial management, and communication (CCDI 2014). Based on the personal assessment and consultation, certain workshops are recommended to support the enterprise in any or all these areas.

I attended 8 workshops: as indicated in the table of available training workshops included below. For each of the workshops attended, I have mapped the design methods used.

Table 5.1 Workshops attended (https://www.thecdi.org.za/page/training)

Support offered	Methods used	Design process	Design Methods (Curedale: 2012)
Product support			
Brand identity and logo development workshop	10 x 10 sketch method	Explore ideas	Generate many quick ideas to select best ones for further development and exploration.
Creative problem solving 05.05.2015 (design thinking)	Associations Scamper Mirror image HIT heuristic ideation technique Mind map	Ideation	Tools to generate ideas in different or unexpected ways in the ideation phase of the double diamond.
Design Thinking 17.03.2015 Facilitated by Design Thinkers Academy	Customer journey mapping Cultural probes Personas	Describe	Methods used to Describe context Understand the user Determine needs
Product support introduction	Prototype	Develop and test	Quick methods to make and test ideas so that feedback can be obtained.
Business support			
Personal development for better business 28.11.2014	Lecture / seminar style		Conversation, question, and answers
The best game – intro to Managing my money 12,13.05.2015 (finished prototype product recommended)	Role play	Custom designed game (licensed tool).	Learn by enacting scenarios

Managing my money			
Intellectual property workshop 20.02 2015	Lecture / seminar style		Conversation, question, and answers
Human Capital management	Lecture / seminar style		Conversation, question, and answers

The first two workshops I attended fell into the business support category. Thereafter, I attended a design-thinking workshop which was hosted by specialist facilitators and, as a sponsored event, was offered at no cost.

There were three guest facilitators. they represented an international consultancy with a local office that offers design thinking training and boot camps. They explained that they work as consultants for corporate and government organisations.

The workshop was an introduction to design thinking, and the use of a design thinking tool called “customer journey mapping”. They mentioned that the setting up and the design of the venue is very important as the space needs to be fit for purpose allowing people to feel comfortable enough to engage in collaborative work. It was noted that the acoustics in the space we were occupying did not lend themselves to this type of workshop, and that it becomes very tiring for the facilitators. On this day, the room was centrally located with no external windows and the air-conditioning was very noisy or not working so in addition there was a portable conditioner and some fans, all of which added to the noise in the room. As the workshop progressed, the space became increasingly noisy and we could not hear each other. Some people lost interest and started reading messages on their phones.

> *The facilitator once again noted that the room we were in was very challenging due to poor acoustics and lack of fresh air. At one point he resorted to whistling to get everyone’s attention, some people reacted*

negatively to this even though it had been suggested earlier by one participant as we could not hear the facilitator otherwise.

There were eleven tables spread around the room with 4 chairs each. On a centrally located table lay plastic pouches containing whiteboard markers and many post-it stickers in various colours. There were some pre-printed A0 sheets of paper and some A0 sheets of blank paper.

After a round of introductions, we were randomly divided into 5 groups of 7 participants. Once seated at tables, we were introduced to a design thinking method called “customer journey mapping”. This is a tool used for storytelling and describing a context. It was noted that this is not a new method but can be applied to a new problem to create innovative solutions. The selection of participants is important, and it was recommended that this tool is used by two parties that usually don’t have a lot of direct communication with each other to foster communication and collaboration and gain insights from each other.

The first exercise was done individually; each group member had an A4 piece of blank paper on which to explain the process they undertake when going to buy clothes. Once this was done each group member had to present this to the rest of the group for discussion. One spokesperson for each group then reported back to the rest. Similarities and differences were pointed out. The facilitator noted that although we were asked to describe a process, many of the responses were emotional. “we all don’t like shopping” and that each story was about a personal experience that had taken place.

The facilitator then briefly discussed “cultural probes’ and how these are used to collect personal narratives to collect data about the customer. This information is used to create “personas”. It was noted that behaviours differ according to context.

We were then introduced to the first tool for design thinking. The large A0 pre-printed sheets 3 per group were placed on the wall nearby so that we could see

the three sheets which had a table running across the sheets. There were guiding headings on the far left and far right-hand columns

Each participant had a set of Post-it notes, and a felt-tip marker, thoughts, ideas and comments are written individually on Post-it notes and placed on the table. This allows all individuals to "voice" their opinions and ideas. ("creating ownership"). The facilitator did mention that post-its can also become a reason for disconnection within the group and seeing these notes as just a series of coloured notes on a wall, and this needs to be managed by the facilitator by initiating conversations. The chart is merely a tool to start the process and help manage conversation. The Post- it notes can then, in discussion, be shifted accordingly on the pages in order to offer a clear description of a situation. The tool, once populated, becomes a map of qualitative data offering insights, and reasons why certain behaviours take place.

> *In my group, we found that the tool was a bit confusing, the order of the headings did not seem to make sense to us, so we started and then when the facilitator came around, he asked questions that we had already discussed, going back to the beginning, so some members of our group got bored. We could not hear him very well. We ended up re-arranging our stickers according to his layout (the confusing headings were now clear) and we completed the exercise.*

We were required to select one issue to explore, our group selected service in restaurants. First, we needed to develop a persona (who's viewpoint we would use for the exercise), we decided on a vegetarian woman, an accomplished cook with a family that was working, and therefore could afford to eat out.

Figure 5.2. Customer Journey Map. Photograph Di Ruvo, 2015

> *I noticed that the terminology used may be familiar to designers, but considering the multi-disciplinary audience, a bit longer could have been spent explaining these terms. As we were not given a starting point, and could choose anything, two of the 5 groups spent a lot of time deciding on a topic. They also did not understand the idea of creating a "persona" and did the exercise from the point of view of the service provider instead of from that of the customer.*

> One participant in my group mentioned that this exercise takes very long and if she had to do this for her business it would not be practical. Later she admitted in seeing value in the exercise but would only do it once in a while to evaluate service within her business. The facilitator said that in a large corporation they group similar personas in order to start to train people into this way of thinking.

5.3.1 Brand identity workshop

The workshop took place in a comfortable, large room with white training tables arranged in u-shape facing one wall, which was also used to project onto. There was a white flip chart, a selection of A4 white paper and A1 newsprint paper as well as markers, felt-tipped pens and post-it notes in various colours. There was a

storeroom where materials were kept, which had shelves with magazines and small collection of books on various topics relating to craft, art, and design.

On this day, here were 10 attendees excluding me, seven women and three men. One attendee was in the 20 to 30 age group all the rest were above 30 years of age. As we introduced ourselves, I made a note of everyone's background and these notes are presented here as an indication of the diversity of attendees on that day.

Introductions were made and the participants included came from a variety of backgrounds:

- *The facilitator was a self-trained 'industrial designer & entrepreneur.'*
- *A business owner, who practices surface decoration, mostly on ceramics, and wood but also footwear…any surface.*
- *Two craftsmen earning a living from crochet shoes as well as hats and handbags. (Started with a green hat that was purchased, when it got caught and started to unravel, he looked carefully at how it was made and taught himself to crochet, bought green wool and made a matching jersey). In Cape Town he sources the soles and then crochets the shoes onto the soles, with leather inserts which he custom makes. Clients choose the style and colours and the shoes are usually made to order.*
- *A stylist doing make up and styling for the fashion industry. Makes unusual decorative, wearable pieces made using found objects and items sourced at hardware stores. (started by making pieces to use on photoshoots, then people started asking about them and buying them. Makes custom pieces for DJ's and celebrities).*
- *An entrepreneur, playing with ideas, developing a range of bags, calls herself "the bag lady". (Currently working from home, hope to be able to expand and employ people to work, currently experimenting with designs and looking at ideas.)*
- *A retired Graphic designer starting a new business. (Changing career after successful career in graphic design stating that "I am past my sell by date"*

and that there is a perception that designers need to be young. Started making men's shirts, Has a range of shirts made from "shwe-shwe" fabric. Has prototypes and is going to do a photo shoot. Is applying for a stall at the watershed). Also specialising in corporate identity, and was participating in the workshop to assist CCDI members with their logo designs.

- *An entrepreneur who makes beaded jewellery and key rings as affordable gifts, sells at markets. (Early days started making beaded accessories in `November, affordable costume jewellery. Sold in JHB by word of mouth, want to start selling at craft markets, tourist shops, bookshops, boutiques, accessory stores, and as corporate gifts).*
- *An entrepreneur who runs a wellness studio and specialising in active ageing, wants to launch a new branch of her business and requires a brand identity. (Active aging product, looking to form partnerships and needs identity for brochures, training manuals, marketing materials. Wants to branch into speaking at conferences, writing a blog, and becoming a healthy ageing activist.*
- *A textile designer launching a range of designer piñatas for celebrations. Time consuming to make, wants to use re-cycled material or waste materials to make piñatas. Started out by making one for her sister's wedding, then started getting enquiries.*
- *An entrepreneur who would like to launch a range of fashion accessories, currently started at CCDI prototyping scarves based on digital photographs. (Out of necessity started making postcards for sale to tourists from his own photography. Joined CCDI and took a drawing class and has been developing his product since).*
- *A business owner running a photography and video / film production business, looking to relaunch and rebrand her business.*
- *As the "bag lady" had already introduced herself, I Introduced myself, as a design educator, also with a range of handbags and needing to come up with a name and a brand.*

The workshop started with a slide presentation, the style was informal and conversational with everyone adding comments as the slides came up, types of logo were discussed, and one participant kept adding information, or mentioning examples, and at times disagreeing with the facilitator. I found this very disruptive and could sense that we would run behind time. (We found out after the tea break that this person is an industry expert taking part in the workshop to assist us with our logo designs).

After tea, we discussed the use of colour and the symbolic value of different colours, current trends in logo designs and then mission statements. The then CCDI mission statement was presented as follows:

> *"The CCDI is a craft and design sector development agency with a mission to develop capable people and build responsible creative enterprises trading within local and international markets" Mission statement, 2015.*

As logos convey meaning, we were all encouraged to elaborate on our stories to be able to design a logo that is representative of the product and the story behind it.

At this point, an introduction to design thinking was presented on slides, and the Double Diamond diagram me was explained. Then we were introduced to seven exercises aimed at organising these thoughts and assisting the participants through the phases of the design process.

Exercises 1 and 2

We were all given a white page with three coloured splotches on it and we were encouraged to draw / doodle whatever came to mind based on each of the coloured splotches. Using association of ideas, prompted by colour and form.
For this exercise the Design Thinking tool is the piece of paper pre-printed with the shapes. I noticed that participants found this quite difficult to do, but those with design training found it much easier having practiced this type of thinking many times before, despite this, everyone was able to present and speak about their ideas and all commented in a brief discussion. The second exercise was the same

as exercise one, but this time using secondary colours. The same process was followed.

Exercise 3

A pre-printed piece of paper with symbols printed on it was passed around. Interestingly no one in our group could see the image. The aim was “seeing the mirror image”, to learn to look at things differently, to find the unexpected. The Design tool used in this instance was the pre- printed page with the mirror images drawn on it.

Exercise 4

The word “handmade” was written by the facilitator onto the flipchart, we were all given white paper and asked to select any one letter and to design as many symbols or logos based on that letter as we could, using elements such as repetition, scale, shading, mirror image, positive and negative shape.

These were then presented to the group and discussed. Once again those with previous design training found this easier.

Exercise 5

On a new blank sheet of paper, we were all asked to design 10 options for a new symbol for the Facebook brand. These were presented individually to the group and discussed. The design method used in this instance is called the 10 x 10 method.

Exercise 6

On a large sheet of newsprint paper we were given felt-tipped markers and asked to develop mind maps for our business / product. This method was demonstrated on the flipchart and explained as a visual way of making a list, or of setting out interconnected ideas. Developing thoughts around a central idea and is a good way to brainstorm and generate new ideas.

These were all presented, this took long, but what I found intriguing, was that as the stories developed, the products took on a deeper meaning and became more interesting. The design method used in this exercise is known as a mind map.

Exercise 7

On a second piece of newsprint paper, we were all asked to draw a table with four columns indicating:

- what it is that we are doing?
- why we are doing this, does it serve a need?
- Who is the target market?
- Are there any other overriding needs that are met by doing this?

Then we were encouraged to write as many possible answers for each of these headings, individually on post-it notes. The workshop for day 1 ended and we could work on this at home for the next day. All participants were asked to bring an example or sample of products with them on the next day.

Figure 5.3 My desk with mapping tools and journal (Photograph Di Ruvo, 2015).

On the second day of the workshop, everyone brought their products to the workshop. I brought some sketches of a range I had been working on. Based on

the concept of collaboration, a basic bag, made by me with the possibility of adding on an additional one when needed. The second bag, slips over like a sleeve and it could be plain but it could also be adorned with other craft techniques such as embroidery, beading or even laser-cut textile or other flexible material, hence the opportunity for working collaboratively with other craft practitioners. The additional part (the plus one) is secured to the bag with an engraved lock, in this way also attaching the strap, the bags can be made and used separately or together.

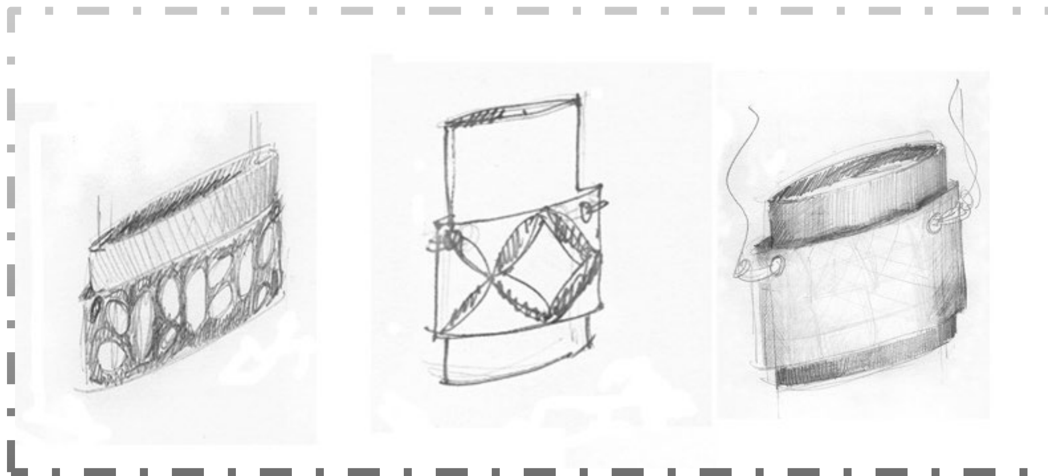

Figure 5.4 Concept sketches, Di Ruvo 12.03.2015

After hearing about the products on the previous day, it was so interesting to see the examples, all so beautifully made. I noticed that many of the participants were very skilled but some lacked the verbal and writing skills to produce effective marketing materials without some guidance.

Using the post-it notes and the grid, we were asked to write out three versions of your mission statement by shifting the post it notes around each time. Then after a brief explanation by the facilitator regarding the importance of a mission statement, each participant presented their three versions for discussion and feedback. In each instance, everyone contributed to achieve clear mission statements. Having the prototypes in the room was very useful. Solutions were found through conversation with peers.

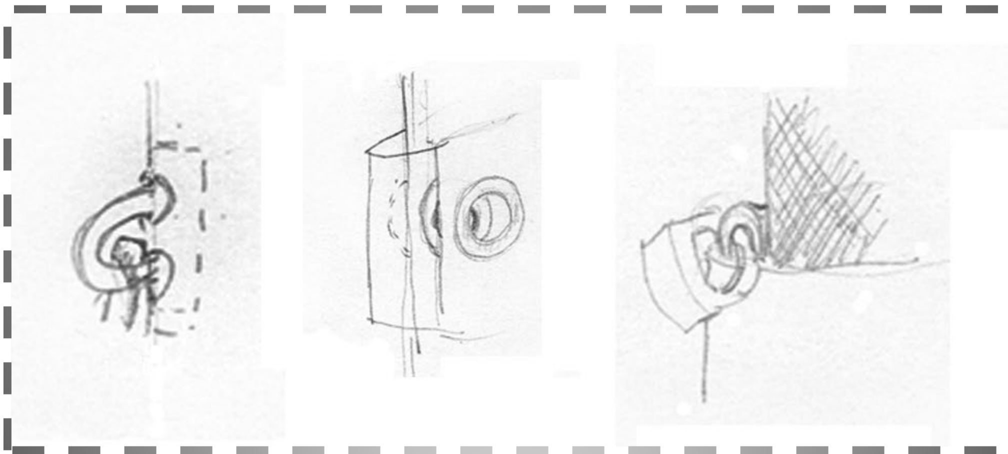

Figure 5.5 Detail sketches, Di Ruvo 12.03.2015

Today I attended my third workshop entitled "identity and branding" and there I met another lady calling herself "the bag lady", hence I have, during the course of the workshop, come up with a more appropriate product name, brand, logo and mission statement for my product. The "bag lady" is now trading as ***one+1.*** *The brand evolving from the "luchetti d'amore" symbols of love I had seen so often on the balustrades of walkways in Italy (Journal entry. Di Ruvo, March 2015).*

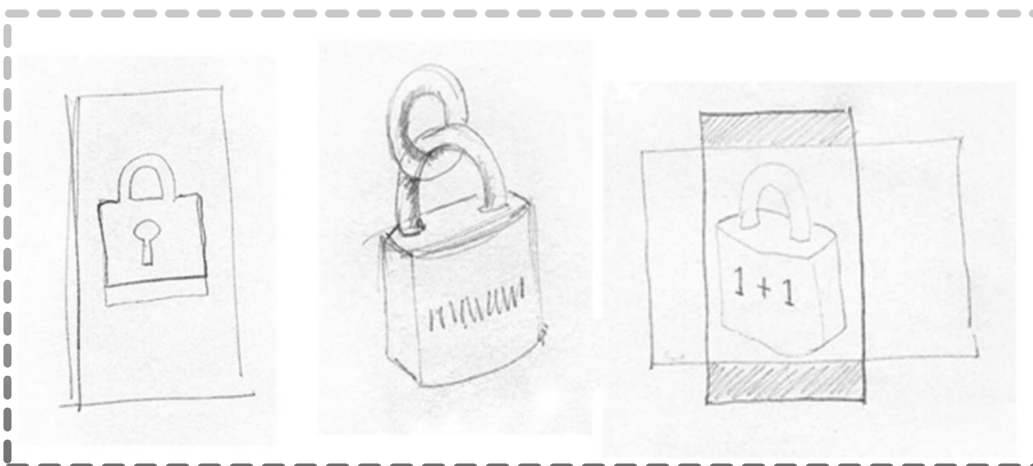

Figure 5.6 Concept sketches- logo and brand ideas

The design of a bag now called "one+1" is born; a tool for making connections and fostering craft and making-with others. A portable repository for material objects required for me to carry my work with me…not necessarily to work on but as a carrier for thoughts and ideas, notebooks, lists, and lists of lists; lists of ideas for future projects, shopping lists, lists of things I don't feel like doing (Journal entry. Di Ruvo, March 2015).

Most of the workshops I attended were hands- on and the learning took place through doing, and using participants own businesses and craft practice as the foundation. The law related workshops I attended took the format of verbal presentations with slides or notes followed by discussion and questions based on participants own experiences. Mentors can be contacted for one on one sessions.

No craft skills are taught but design training and methods are used for ideation and product development. By using each practitioners' own products and businesses as the starting point, the support offered, although predefined, is flexible for attendees and is experienced as a customised approach which is offered in support of craft enterprises, as well as business training.

In each case I experienced the training to be informative, the content was well prepared and presented and pitched at people running their own businesses. The workshops were practically orientated and participants were able to ask questions pertaining to their own situations, if they could not be answered within the workshop, then participants were advised to make an appointment for a one-on - one consultation with a specialist consultant contracted to the CDI.

I have not been working on my product for a while, as with other craft practitioners attending the workshops at the CCDI, the need to be working and earning enough money until you are able to earn a living from your craft is a challenge, yet it appears that passion for craft is a driving factor, and I have a deep respect for those that pursue their ideas (Journal entry. Di Ruvo, April 2015).

Apart from the training, the CDI also runs special projects, such as the Better Living Challenge which ran between 2016 to 2018. This project followed a design thinking approach towards incremental improvement of living conditions in low-income communities. The project was divided according to design thinking process phases as described in the literature. To respond to actual needs a series of engagements took place with end users. Three opportunity areas were identified:

- Information, networking to upgrade planning, process, and practice.
- Access to finance for procurement, upgrading and home maintenance
- Land ownership, user rights and policy reform (CCDI, 2017).

The public were invited to join collaborative activities such as, co-design workshops, design-build labs, solution showcases, entrepreneurial development and enterprise support programmes, knowledge sharing, skills transfer and capacity building activities.

As part of these activities, I had the opportunity to serve on a judging panel in 2014 for proposals centred around the design of innovative products for use to improve living conditions in low-income communities. In this context I was able to see the impact of adopting design thinking processes to large scale problems. My observation was that due to the number of trained design participants it was easier to obtain solutions. Whereas in the workshops I noticed that participants with no previous design training had difficulty in drawing and ideating and communicating their ideas through drawing and prototyping (design methods). This refers to the role of the designer as facilitator and skilled expert to engage with design thinking effectively.

The table included below lists the support offered to craft practitioners. Since I participate in the workshops, Design support has not been added as a fourth category for support.

Table 5.2 Overview of the support offered (www.thecdi.org.za)

Business support	Business skills development	• Introductory workshop • Bizz Buzz you and your product in the market (marketing and selling level 1) • Business to customer selling (marketing and selling level 2) • Marketing and brand strategy (marketing and selling level 3) • Business Vision (Business management level 1) • Business map (setting up my business: business orientation (Business management level 2) • Market ready get your systems ready to facilitate sales (Business management level 2) • The Best Game – intro to money management (Financial management level 1) • Managing my money (Financial management level 2) • Understanding my financial statements • (Financial management level 3) • DIY Product photography • Business administration • Tax • Social media • Closing the deal • E-commerce
	Downloadable resources	DAC. Growing creative businesses guide Boxcutter (a guide for facilitators)
	Creative development	• Design cluster series (principles of design) • Creative problem solving – Design Thinking • Drawing cluster

		• Drawing intensive • Product innovation workshop • Logo Design and development • Creative exploration workshop
	Personal development	Personal development for better business
	Coaching and mentoring	By appointment after completion of training modules if trading as a fully operational business for at least a year. Recommended: Understand the basics of Business (all eight areas), have a finished product, a marketing plan and financial management in place.
	Business and creativity workshop schedule Online learning Funding for SME's CDI Capital	Calendar of events Entry level business training is available online SMME development programmes, grants, loans, and equity
Product support	Overview of equipment tools and processes	Access to the use of these tools by appointment
	Tools: Research and design	• Research computers • Design and Fabrication computers • Surface Design computers • 3D Design computer • Document and Film scanners • Graphics tablet • Inkjet printer
	Tools: 3D fabrication and scanning	• 3D Printer • 3D Scanner • 2.5D Scanner • 3D Milling machine
	Tools: Fabric processes and paper	• Vinyl cutter • Embroidery machine • Sublimation printer • Fabric transfer printer

		• Thermal transfer press • Craft cutting plotter
	Tools: Laser cutting and engraving	• Laser cutter • CNC Engraving machine
	Tools: Mould making	• Mould making • Vacuum chamber
	Tools: Thermoforming	• Vacuum former • Line bender • Hot wire cutter
	Tools: Welding, bending, and heating	• Spot welder • Metal bending kit • Wood burning kit • Heat cutting kit • Heat gun and flame torch • Glue guns • Bench grinder • Hand tools: pliers and shearing
	Tools: Sawing and cutting	• Band saw • Scroll saw • Wood lathe • Mitre Saw (electric) • Mitre saw (hand) • Routers • Rotary multi-tool • Jig saw • Circular saw • Hand tools: cutting and sawing
	Tools: Electronics	• Soldering Irons • Power supply and Oscilloscope • Hand tools: electronics
	Tools: sanding and finishing	• Belt and disk sander • Electric hand sander • Hand tools: rasps and files

	Tools: drilling, punching, tapping, and fastening	• Drill press • Hand drills (electric and hand) • Tap and die set • Hand tools: punching • Assorted hand tools
Market support	Targeting the correct market	
	Export: Market your products	Downloadable document: Exploring new markets
	Matchmaking	By appointment
	CDI's market access platform: PEEK	www.peek.org.za showcase of products with contact details
Design support	Education	Online Information about careers in design Descriptions of different types of designers
	Design Interventions	Promoting design through interventions such as but not limited to competition, invitations to participate.
	Better living Challenge	Project to improve living conditions in lower income households including a design Competition 2014-2017.
	How do I become a designer?	Downloadable information and list of tertiary education institutions.

Digitally mediated support

The website functions as the main line of communication with members. It is here that all news, activities, and links to opportunities for funding and competitions are disseminated. Training is arranged by the type of support offered. There are also downloadable resources. As actual craft skills are not taught, most of the people accessing these support opportunities are already producing products or have some craft skills and would like to start up, improve or grow their enterprise.

Since 2017 the CDI has been developing an online learning platform with support from the The *Council for Scientific and Industrial Research* (*CSIR*), thus allowing more people access to training remotely. The learning platform was launched in April 2020 the table below indicates the modules available on the website (CDI, 2020):

Table 5.3 Online learning platform available to members at https://www.learn.thecdi.org.za/

Online learning platform: Business Modules	
Strategic vision and business plan	• Strategic vision and business plan start up
Product	• Product idea
	• Materials
	• Prototyping and sampling
	• Packaging and packing
Production capacity	• Production start up
Sales marketing and distribution	• Marketing
	• Selling
	• Distribution
Financial Management	• Financial Management
Business systems and HR	• Business systems and HR
Communication	• Communication
Individual capacity	• Individual capacity

The online modality offers flexibility which supports life-long learning and practitioners can obtain the support they require, as and when they need it. This is in keeping with global trends identified in design education (Moritsch, 2018).

The CDI also curates an online showcase of South African craft products, first launched in 2017, the platform hosts over 600 producers and 4400 products (CDI, 2020a). This platform allows crafts practitioners to access a larger market base. Products are not sold on the platform, but contact details are provided for direct purchase of goods from producers. CDI members can upload images and descriptions of their products.

The COVID-19 pandemic and the associated lockdown period occurred after this chapter was written but before inclusion onto the website and deserves mention here. The global pandemic and the imposed lockdown experienced in 2020 to contain it has had a devastating impact on all businesses globally, not least the thousands of South African craft practitioners. During lockdown all activities were suspended and to date all CDI functions are still occurring online for the balance of 2020 as the country struggles to contain second-wave infections.

During this period The CDI has sent emailed newsletters to members with information of opportunities to access COVID relief funding, the use of the online learning platforms and registration details for free webinars, some of the topics covered in the webinars, (recordings of which are also available at https://www.youtube.com/playlist?list=PLiu5cDANvUaxuxkfcLyy77zDUGeHAe6W1) include:

- Business model canvas (3 webinars)
  - Managing costs
  - Budgets and cash flow
  - Updating your marketing strategy
- Managing communication in challenging times
- Sustaining your creativity under lockdown (5 x 1-hour sessions)
- Taking stock of different priorities and creating goals and actions
- Creating an engaging operating environment and an engaged team
- Social media in the time OF COVID-19: Maximising your sales and exposure
- Social media trends
- Building a successful brand
- The online shop series
- Quality – an untapped source of competitive advantage

5.4 Discussion

The CDI has been providing training and support to craft practitioners for 20 years, and the training as well as the mechanisms for support have evolved and changed over this period and noticeably over the period of this research. In this section I

discuss the findings using the headings identified by Stevens (2007) as threats and challenges to the craft sector.

5.4.1 Withdrawal of the project leader, despite succession plans the current model places most of the authority with one or two individuals (Stevens, 2007:331).

Based on the workshops I attended, many of the participants were single person enterprises or small businesses and the authority does lie with one or two individuals. For a business to be considered economically successful and profitable, production needs to be scaled up and this usually entails employing crafts practitioners to make items for sale, usually to the specification of the project leader or business owner.

In community craft projects and larger enterprises, the design is often conceived by a project leader or creative director and then implemented by crafts practitioners to be able to keep up with demand and to generate enough profit. The contact with retailers and the administration of the business are often dealt with by the project leaders as well, these projects are therefore vulnerable if the project leader leaves and there are no succession plans in place, in this instance the CDI can assist projects with training so that staff can be empowered to start taking more responsibility for the ideation as well as the marketing of products.

Although the training is available to anyone able to register and attend, the power dynamic between the project leader and or the business owner and the staff would determine whether staff is given the opportunity to gain design skills and could progress to ideate products. The training offered could help business owners to upskill their staff at relatively low cost to grow and learn skills for future succession planning provided they can take the time off work to attend and that they are able to get to the workshops which occur in Cape Town.

The Human Capital Management workshop offered at the CDI could assist with training on good labour practice.

5.4.2 Staff turnover, empowered craft workers may seek alternate employment or develop their own enterprises (Stevens, 2007:331).

The CDI does not teach craft skills, so once staff become skilled through doing and working in an enterprise, they might wish to leave to start their own business. Staff satisfaction and remuneration commensurate with skills forms part of labour practice. The CDI labour practice workshops cover legalities of employing and retaining staff and compliance with labour and tax laws. The training offered assists anyone wanting to start a business or wanting to improve or grow their business. Good labour practice would assist business to retain staff and possibly mitigate against this challenge.

Historically the exploitation of craft practitioners in under-resourced contexts has been prevalent. In South Africa due to racial division, there has been an imbalance in the accessibility of funds, access to materials and markets for many craft practitioners. Globally and locally, instances of designers and business entrepreneurs exploiting craft practitioners in rural areas have been documented, there is however greater awareness due to the work of authors such as Murray, (2020 and Kaya & Yagis (2011). Digital platforms and the availability of information have contributed to bringing these injustices into the public domain and purchasers of handcrafted products are increasingly questioning the source and practices behind objects purchased. In this context the narrative behind the product becomes a selling point.

5.4.3 Responding to changing consumer markets and trends (Stevens, 2007:331).

The creative development training offered by the CDI speaks directly to these challenges:

- Design cluster series (principles of design)
- Creative problem solving – Design Thinking
- Drawing cluster
- Drawing intensive
- Product innovation workshop
- Logo Design and development

- Creative exploration workshop

In addition, the following Online business modules could also assist craft practitioners to position their products effectively.

- Strategic vision and business plan start up.
- Product Idea
- Product materials
- Product prototyping and sampling
- Product packaging and packing

These workshops are aimed at providing skills and methods used by designers to conceptualise and ideate and creatively develop new ideas and imagery for use in innovative product ranges. Once the methods are learnt, new content can be generated in response to changing consumer needs and trends. The CDI also hosts guest speakers and trend presentations to raise awareness of global trends in the craft and design sectors.

Design thinking methods are introduced in the workshops. I noticed that in some of the workshops and presentations I attended, at times the participants were not fully engaged with the design activities. This could be due to historical disenfranchisement; it could also be that some of these activities require considerable amount of time to be invested upfront, often with no immediately noticeable financial benefit, as noted by one of the business owners in a workshop I attended.

In some instances, there is a wish to preserve either for cultural or historic reasons the production of an artefact with minimal change to the design but executed to a high level of quality. An example of this can be found in the production of traditional ceramic bowls, their beauty lies in the simplicity of form and quality of surface finish. These remain desirable to consumers by virtue of their timeless elegance, or desirability as examples from a renowned maker.

Another example of this could be artefacts produced for tourists interested in purchasing mementos, which embody a certain culture and place. In this instance

authenticity of the product, the material or the narrative attached to the artefact could be a mitigating factor.

5.4.4 Mass market imitations of craft products (Stevens, 2007).

Stevens (2007) points out that, traditional products generated for cultural or historical meaning with time have become copied and mass produced at very competitive prices. In mitigation of this craft products either must adapt to meet current market tastes and trends or they need of be of exceptional quality and then sold as collector's pieces.

The mass market imitations of craft products has become increasingly prevalent due to digital technologies, and global access to ideas and images on social media and other online marketing platforms. To remain financially viable, scaling up of production is encouraged and generating new products through innovation is recommended. Once mass market imitations at a competitive price are available craft practitioners must adapt their products to sustain demand for their products, unless they have reached a level of where they are sought after as collectors' items as discussed in the preceding paragraph.

This is where design methods have a big role to play. Craft practitioners with no formal design training can access these workshops and learn design processes which can assist with ideation and creativity. The CDI identifies design as the driver for innovation and economic growth and the support offered is aimed at enabling businesses to grow and be able to become economically competitive.

The CDI assists producers to exhibit locally and internationally, on the one hand this can help practitioners access new markets but it could also exacerbate the problem of other manufacturers copying designs and mass-producing them for global distribution.

Craft practitioners with no formal design training can access creative training workshops and learn design processes which can assist with ideation and creativity. A skilled designer might be able to attend a workshop and generate a

range of products, but without previous design training or practice this could still pose a challenge. The ability to draw, ideate, visualise and prototype are skills that are learnt through doing over a period and it may take time for craft practitioners to keep innovating their product ranges. Ongoing access to workshops or online classes is needed to help craft practitioners to develop creative ideas.

5.4.5 Business skills shortages (Stevens, 2007:331).

Business skills form one of the three focus areas for training and support offered by the CDI. Craft practitioners, entrepreneurs and small business owners can attend workshops and learn how to manage the financial aspects relating to running a business. Once practitioners have attended all the business workshops, they can also make an appointment with a business coach. The CDI also offers opportunities for members to apply for seed funding and other funded opportunities. Whilst attending these sessions, opportunity is created for meeting like-minded peers facing similar challenges, thus promoting networking and collaboration. These training workshops address this challenge:

5.4.6 Organisational structures can be seen as exploitative, stereotyping of craft as other than art (Stevens, 2007).

Access to the CDI training and support is almost exclusively via the new website at www.thecdi.org to attend training, one needs to register on the website and access to some of the services offered is limited only to registered business owners. The CDI provides access to computers at their premises but small practitioners especially in rural areas could be excluded as they may not have access to online resources, the skills to use them or the means to travel into town for training.

The training is aimed at improving profitability of the individual person or craft enterprise and is therefore based on individualism and creating competitive advantage through innovation. Business people employing staff to manufacture goods may exploit workers in an attempt to generate as much profit as possible. The very high unemployment rates in South Africa especially amongst the youth

means that unskilled workers wanting to earn a living by learning craft skills are vulnerable to possible exploitation.

The training is offered in three different focus areas and in short manageable workshop format so that it is reasonable accessible and manageable for people to attend. The flexibility of this workshop model allows for lifelong learning and practitioners can obtain the support they require at the time they need it. This is in keeping with trends identified in design education (Moritsch, 2018).

5.5 Summary

In the field of South African craft, Stevens (2007) noted that successful South African Craft enterprises operate according to the Victorian model of Morris & Co. The CDI has contributed to the body of research in the field through a series of commissioned reports, and through the implementation of strategic objectives and trial and error to deliver a framework for supporting craft enterprises to become sustainable. Both these models are based on a consumerist approach of creating demand for products and the manufacture and distribution of these wares; and the scaling up of production to create employment and generate profits.

Despite global shifts in design studies towards services and more sustainable approaches, in South Africa there is still disparity between subsistence craft practitioners, small craft enterprises and the successful craft enterprises that meet the criteria of the Steven's model. In response to the question - *how are South African craft practitioners currently supported to mitigate the threats and challenges faced by this sector in a globalised digital economy?* The CDI plays a role in supporting small craft practices to overcome the challenges faced by this sector to operate in globalised digital economies. Access to support by practitioners in remote areas has been increased through the website and online learning platform but access to devices, data and digital literacies remains a barrier for the most vulnerable segment of the population. The role of community centres and other NGO's becomes important in these areas and opportunities for

collaborations and alternative mutually beneficial relationships offer opportunity for further research.

Gaylard (2004: 29) cautioned against the reduction of craft to “money and work” by privileging an economic bottom line in the government's thinking and assuming that investment must translate into self-sustaining businesses. He called for the “emergence of a more nuanced and context sensitive framework.” The adoption of a design strategy by the CDI has provided such a framework but based on my observations and some of the literature presented in this paper it is not a “cure-all” that can be practiced or applied by anyone.

My observations indicate that design methods for ideation and innovation are effective if practiced over time and that attendees without any previous design experience found it difficult to generate ideas during the limited time frame of a workshop. This resonates with literature cautioning blanket approaches to the application of design thinking and the need for skilled design practitioners as facilitators (Kimbell, 2011). From the literature it is evident that the facilitator needs to be a specialist designer to be able to apply design-thinking methods effectively. Blanket approaches can me misunderstood or if not engaged with meaningfully by all participants can prove to be time consuming and costly for little benefit.

In the South African context, support is needed at different levels, from grass roots skills development and job creation to online support groups underpinning maker movements. The support offered by the CDI occupies this space with flexible training aimed at fostering entrepreneurship and building capacity through opportunities for life long digitally mediated learning.

The support offered by the CDI does not respond to skill training in craft techniques nor do they offer support to craft practitioners in rural areas except online. There is still a need for community centres, and NGO’s to offer support in these communities and there are opportunities for forming collaborations with such groups using technology to bridge the gaps.

More research is needed regarding the funding of these types of design thinking approaches and interventions which require time if they are to have any meaningful impact. Does this remain the domain of funded organisations, NGO's, researchers, student volunteers and the unemployed in communities who are able to engage with these methods sometimes spanning several months or years?

Chapter 6: Conclusion and recommendations, Somewhere in between.

You can never be a nomad; you can only go on trying to become nomadic (Braidotti, 2011:43).

In closing, this chapter is written as reflections on the research undertaken in this field, The findings are discussed according to themes suggested by Stevens (2007) and recommendations are offered in support of alternative, more resilient models for South African craft enterprises. Pertinent questions are raised regarding nomadic and 'care-full' approaches to enhance sustainable futures for South African craft practitioners. These findings can ideally inform the support offered to craft and design students and practitioners through means and methods for *making-with* the future as an approach to resilience. In framing this conversation, inspiration is taken from Haraway (2016:10) who looks not to the past for "reconciliation or restoration" but to a present "becoming-with each other in response-ability", in anticipation of a "still possible recuperation".

Research in the fields of South African craft and design has provided an opportunity to respond with regards to the threats and challenges faced by SA craft practitioners in globalised economies. In Chapter one a case was made for further research guided by the research question: *How could the threats and challenges experienced by South African craft practitioners operating in globalised digital economies be mitigated?*

Literature in Chapter two provided a baseline for the research and themes emerge from academic discourse in this field, which are used to prompt the discussions of the findings in subsequent chapters.

In Chapter three I proposed a relevant lens for this research that speaks to the digital age of constant change. Underpinned by Braidotti's nomadic theory, two cartographies were drawn up, not as a means of comparison, but rather as a way of engaging with the processes and to foreground possible opportunities for sustainable alternatives. If the only constant in the third millennium is change, says

Braidotti (2011:15), then the challenge lies in how we think about processes rather than concepts. A case is then made for a framework for this research, based on this nomadic theoretical position.

Two examples of craft projects were purposefully selected, both offering training and support to craft practitioners. Both projects were started at the same time and have been operational for the past twenty years.

- For Case Study one, data was collected through observations of a craft project and the findings presented in Chapter 4 of this thesis.
- For Case Study two, data was collected as a participant observer, the findings resulting in Chapter 5.

By presenting these two papers separately-but-together, I have endeavoured not to synthesise or code and recode (Deleuze & Guattari, 1987) the information, but rather to present an accurate "cartography" (Braidotti, 2011) of both of the examples studied. A brief summary of the support offered is mapped out in the table below.

TABLE 6. MAPPING SUPPORT OFFERED IN MITIGATION OF CHALLENGES.

Challenges: **Stevens, 2007:647**	**Challenges:** **DAC, 2017:23**	**Case Study 1**	**Case study 2**
	Lack of working spaces and access to funding coupled with the high cost of materials.	Space to work Access to materials Payment for work sold	Access to seed funding, government relief funding, competitions – all facilitated online
	Small domestic markets, difficulties in accessing international markets.	Sell at local markets and retail outlets. Undertake commissions.	Access to international markets through trade fairs.
	Inadequate promotion of the sector by government, compounded by insufficient exhibition, display and marketing opportunities.		Online product showcasing. Trade fairs and curated exhibitions offer access to national and global markets.

	Few opportunities for training and skills development.	Skills development training.	Business training. Marketing training. Product development support.
	Low presence in the print, digital and broadcasting media.	Facebook.	Website.
	The high commissions and fees taken by galleries and craft markets.	The project is funded by sponsors and donors. Income generated from sales is paid to the crafts practitioners, and a percentage is held back to purchase more materials.	No work is sold on behalf of craft enter-prises. Training is available at a small fee or for free is available online.
Staff turnover. As craft workers become truly empowered, they may become discontented with the hierarchical power structures in such enterprises.	The precarious status and rights of arts, crafters and designers.	Entrepreneurship encouraged. Support alumni with access to materials and markets.	Business support. Human resources. Support craft entrepreneurs. Design support.
Withdrawal of project leader		Collaborations. Guest facilitation.	Product support. Design training.
Markets and the tastes of consumers may change radically.		Authenticity. Traditional skills subject matter updated through storytelling, lived experience responding to current themes.	Trend analysis, trend awareness.
Uneven power relationships and roles. Organisational structures in such craft enterprises may come to be seen as the exploitation of the craft workers by the leaders, buyers and even tourists.		Financial management. Audited reports to funders. Annual reports. Craft practitioners go to markets and witness sales process.	Institute provides service to the sector, does not directly employ craft practitioners or sell products on their behalf.

		Workshops created around processes not always artefacts; transfer of skills not always monetary. Communitarian way of "Ubuntu"	

In the discussions in Chapters four and five, I refer to the themes underpinned by nomadic theory and consider the effects of power, agency, potential, affect, values and location as these have surfaced in the research. I have pertinently tried not to speak for or on behalf of others, but to focus on published data and my own primary observations and experiences. This is therefore only one perspective, situated in a certain time and place. Lastly, I speculate on possible alternatives as a way of unlocking potential (Braidotti, 2011).

In the following section, I discuss my findings using the headings and prompts recommended by Stevens (2007:648-650) as they were excluded in her model. These headings guided my personal reflections and realisations during my research in this field. Stevens underlines the following aspects for consideration (2007:648-650):

- Micro and one-person craft enterprises;
- the investigation of training offered in crafts as well as interventions by governmental and non-governmental organisations in this sector;
- investigations of notions of commodification, commercialisation, authenticity and exploitation as they pertain to the notion of the vernacular; and
- the consideration of terms such as 'craft', 'art', 'tourist art' and 'indigenous' or 'ethnic' arts in relation to each other.

6.1 Micro and one-person craft enterprises

The Stevens model (2007) is usually not the best fit for successful micro and one-person craft enterprises in South Africa, because of lack of access to capital,

access to markets, scale-ability and meeting production requirements. In local South Africa, such enterprises rather fall into one of two categories. The first includes highly skilled accomplished crafts practitioners, producing specialist bespoke items at a high price in order to be profitable. The second category includes subsistence craft practitioners who use their craft skills as an entry point into the workplace and economy. In South Africa such enterprises are mostly supported by NGOs and other funded community-based projects such as the one I have used as an example in the earlier chapter 4.

With access to education, digital literacy and a mobile device, these crafts entrepreneurs can gain further support offered by the CDI as described in Case Study two, as well as other online opportunities, for example:

- online free and commission-based marketplaces such as peek.co.za and etsy.com;
- online free and subscription-based learning websites for craft skills training such as thecdi.org.za, craftsy.com and LinkedIn Learning anf Youtube;
- the usual banking and payment systems presenting challenges for micro and one-person enterprises, although and once again, access to digital technology and payment options such as Snapscan could mitigate this particular obstacle.

In the current globalised digitally mediated context, agency comes with access to education and the acquisition of digital and professional literacies. This varies according to location as well as age groups. It is easier in cities to access community centres, computers and the internet as indicated in example one. Data still remains unaffordable for many South Africans and more work is needed in addressing the requirements of the most vulnerable members of the craft and design sectors.

There is potential for co-ordinated network-linking community projects, NGOs and Government-funded institutions, so that practitioners in rural areas can gain access to the resources that are increasingly available online. By forming alliances

with educational institutions or existing community centres, nationally distributed maker-spaces could be co-ordinated and made available to nearby communities in mutually beneficial relationships. These initiatives could also be partly funded by industry partners.

The possibilities of access to fab-labs, community facilities, libraries, social initiatives driven by large corporations can be utilised in exchange for other forms of capital. Different economic models are also possible and further research could build on developing frameworks for such symbiotic engagements.

As people move towards towns or busier urban spaces, access to community centres increases. So too would the need for skilled designers who can act as facilitators to negotiate collaborations and facilitate skills transfer. The affect and effects of symbiotic relationships between communities, artist, crafts practitioners and makers in ethical frameworks should be prioritised, as these aspects are accountable for the effects and emotional impacts on all participants and non-human others. This finding resonates with findings in other countries (Murray, 2010; Kaya & Yagis, 2011).

6.2 The investigation of training offered in crafts as well as interventions by governmental and non-governmental organisations in this sector.

Since 1994, the South African Government has continuously invested in this sector, initially as a means for skills development and job creation, and more recently by investing in design as a driver for economic growth. Although the research is limited to two examples, initial findings indicate that it is undeniably and increasingly difficult for any practitioner to access available support without access to digital literacies and technology. This includes (but is not limited) to social media skills and the internet. With the fast pace of technological change this challenge is expected to escalate.

Craft projects such as the one in Case Study 1, could act as intermediaries with trained staff as facilitators in order to provide training and skills whilst providing physical access to computers in strategically located community centres.

The potentially troubling power dynamics that emerge when facilitators as trained designers and artists are commissioned to lead projects, make the connections and facilitate the training, needs attention. This obstacle can be mitigated with adequate facilitation training if it is acknowledged as such by all participants, and if they are given equal consideration and equitable remuneration. It is at this point that participatory design processes can assist in mutually beneficial “Sympoiesis” (Haraway, 2016: 125).

The findings speak to resilience in diversified models and multiple concurrent approaches. Both the examples that were discussed have been in business for twenty years. Both, in their own unique approaches while serving different needs, have so far proven to be sustainable.

Investment and training is required with regard to what are broadly referred to as ‘twenty first century skills’. These include computer and negotiation skills, the ability to curate information, and life-long learning skills required over and above craft skills in order to navigate the digitally mediated context of business.

6.3 Investigations of notions of commodification, commercialisation, authenticity and exploitation as they pertain to the notion of the vernacular.

The commodification and commercialisation of craft have transpired in South Africa due to the critical need for skills development and job creation. The production of handcrafted items has allowed entry into the economy for many subsistence crafts producers unable to obtain other work. This condition is likely to persist due to the economic recession and loss of jobs caused by the COVID-19 pandemic, and is likely to have a lasting impact not only on the South African craft sector but on local and global economies.

The importance of strong design skills is recognised in the Steven’s model (2007), in which the design is conceptualised by one or two designers prior to being executed by a team of trained crafts people, either at appropriate premises or at home. The completed artefacts are consequently delivered to the craft enterprise where they are marketed and sold, and the craftsperson is remunerated on a

percentage basis. This model is broadly utilised by community craft projects in South Africa and offer opportunities for job creation and development – but conversely this system is also vulnerable as there is opportunity for exploitation when the rewards are not equitably shared.

This business model could be considered as a “top-down” approach in terms where the design originates from one or two individuals holding the highest rank. Historically, due to unequal access to art and design education, large percentages of the South African population were disadvantaged. Although this hindrance is being addressed with access to government funding for students through the National Student Financial Aid Scheme (NSFAS), there are still many young South Africans on grass-roots level with little potential access to higher education. This is valid both in terms of the creative fields and the skills required in order to apply for work in this sector. The project in example one responds to this need.

The diversified activities and support offered (as mentioned above) help aspiring creative practitioners to develop skills in their areas of interest. Some of the alumni are enabled to become facilitators and in so doing capacity is built for future leadership. Collaborations with artists and other creatives allow ideation to shift from one person as the creative director for all the work. The creative process which focusses on narratives and story-telling as a starting point for the subject matter allows each participant to bring their own voice into their work. Thus, authenticity is embodied in each artefact. The use of narrative is deeply embedded in South African culture and has always formed an integral part of the capturing of indigenous South African knowledge. In this particular case, the narratives are not traditional though, and are rather centred around the daily lived experience of the participants.

6.4 The consideration of terms such as 'craft', 'art', 'tourist art' and 'indigenous' or 'ethnic' arts in relation to each other.

Literature indicates that the boundaries between these concepts have blurred and that the traditional concept of craft versus art versus design is rather fluid, partly due to access to information and technology, but also because of digital technologies that allow for scanning and manufacturing in manners that were previously not possible (Cardoso, 2009).

Combinations of traditional and new technologies are redefining the concept of authenticity beyond the notion of handmade to include hybrid combinations of style, material and technique. In this context the process in itself becomes unique and authentic to that artifact. Digital technology furthermore allows for customisation so that no two pieces ever need to be the same. In this way, the traditional connotations of "unique" and "bespoke" have also shifted.

Decolonisation must be taken into account in the democratic South Africa. Nomadic theory shares a strong critique with African philosophy of Universalism's vision of European man as the "knowing subject" and thus omitting all "others". Nomadic theory "rejects moral and cognitive universalism" but offers instead a strong ethical sense of collective and relational accountability. This finds strong resonance with postcolonial, race and feminist theorists including the critical notion of "African humanism" or "Ubuntu" (Braidotti, 2011:211-218).

It was noted in Case Study 1 how crafts practitioners tended to work to the s[lowest] denominator in this project. This reminded me of how not one-person was allowed to outperform the rest of the group; by the same token, the weakest members were protected as part of the collective. This outcome may change according to the task and the individual's personal circumstances on a given day.

This notion of Ubuntu does not speak to the work itself, but rather accounts for a degree of resilience within the organisational heart of the project.

6.5 Conclusion and recommendations

The previous section discussed the findings from two Case Studies of projects that offer support to craft practitioners in South Africa, in response to the themes identified for further research by Stevens (2007).

The findings suggest that the support offered by the CDI is in keeping with the Stevens (2007) model for successful craft enterprises. The CDI has training in place which has been developed over the years to meet the needs of craft enterprises. Increasingly, this support is moving to an online platform from which all training and other support is co-ordinated.

In order to broaden access there is critical need for support with regard to access to devices, data and digital literacy training. This can be offered in a co-ordinated and networked manner although further research is required in order to develop a suitable financial framework which could be beneficial for various stakeholders.

The findings from Case Study one indicate that craft skills and support can be sustainably offered to more vulnerable craft practitioners, by forging alliances and using alternative forms of capital such as sponsorships and skills transfer to best advantage. This research responds to the need identified in the literature to develop frameworks for ethical collaborations which could be used by other craft projects operating in similar contexts (Murray, 2010).

Strikingly, local situated responses have yielded good results in both Cases, even without facilitators or designers trained in design thinking, while blanket approaches do not produce optimal results (Kimbell, 2011). Investment is needed for the training of facilitators in order to support craft practitioners beyond the geographical locations of these two examples. The CDI is tasked with the implementation of a national design strategy, and capital is needed even if most of the support will be offered online. A well- distributed network of facilitators could have a positive impact on resilience in this sector, falling somewhere in between

the two examples used for this research. Alternative funding mechanisms could be explored that respond to mutually beneficial relationships, between funders and NGO's.

In the next section, recommendations are made as contributions to knowledge.The literature indicates that frameworks are required for ethical collaborations and empathic research practices, especially between differently resourced participants (Murray, 2010)).

In chapter 3 I introduced a relational cartography as a contribution to design research methods that could be used to guide the creativity inherent in design processes, and the relational consequences of process based outcomes. By critically questioning motives, relationships, positions and privileges, a nomadic position is concerned with the affect that all our design actions have on all others in a posthuman context and thus constitutes an ethical position that takes resilience and sustainability as its points of reference.

In the following diagram, I present a revised model to guide the support offered to South African craft practitioners. It builds on the model of Stevens (2007), for successful craft practitioners, and the training offered by the CDI. I have adjusted the model in order for it to grow outwards in all directions in response to situated needs. This framework can be applied in addition to existing frameworks used by craft practitioners, projects and organisations such as the CDI to interrogate and facilitate negotiation, understanding and collaborations needed to mitigate challenges.

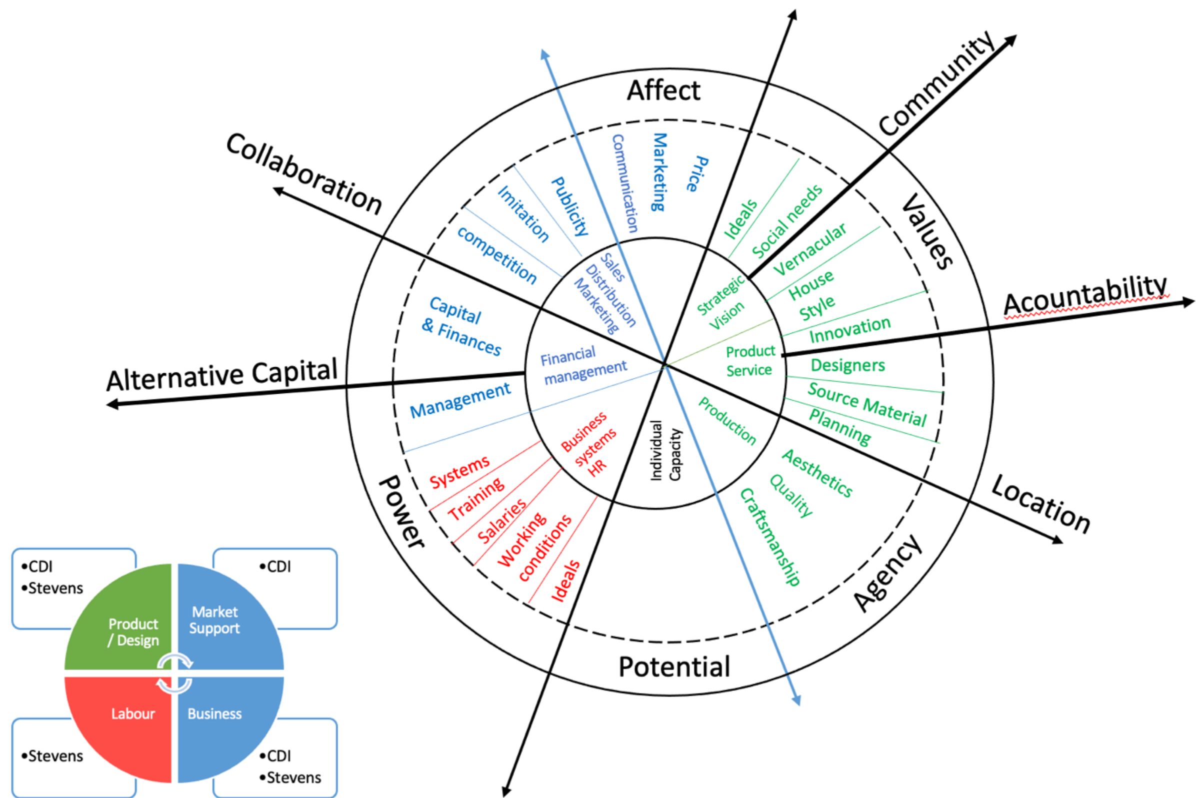

Figure 6: Becoming-Resilient: An adapted model for South African craft enterprises (Di Ruvo, 2020).

The reader can enter anywhere in the middle, the themes are familiar to the training offered to craft practitioners, and can act as prompts for craft practitioners to seek advice in areas where they may need assistance in response to challenges faced. This resonates with the existing models used by the CDI (product, business, market support, labour). The words in the outside circle, act as prompts towards ethical approaches which should to be interrogated and negotiated (power, potential, agency, values, affect). These can shift around to engage the more traditional pillars of labour, product and business. The outward moving prompts (alternative capital, collaboration, location, accountability) can be added to as needed but should never be deducted from or overlooked. This framework is intentionally open ended as a response to constant movement towards positive and creative alternatives in changing contexts.

The study's content and recommendations are particularly concerned with those craft practitioners not included in Stevens's (2007) model for thriving and profitable craft practitioners and as such constitutes a contribution to knowledge in the field of South African craft and design.

The findings speak to alternative approaches that can mitigate the challenges faced by craft practitioners. Outreach projects in communities that are currently externally funded, can offer alternative kinds of training opportunities, and are aligned to the development of creative and problem-solving skills through community participatory workshops and other design thinking methods. The development of these skills could assist to mitigate challenges as and when they arise and develop alternative offerings to the normative economic business models underpinned by Western advanced capitalism.

The framework offers a contribution to policy as a pragmatic mechanism for collaboration with funded organisations. It could inform policy regarding funded support for craft practitioners suited to their specific needs which will vary according to location, or between designers and craft practitioners to facilitate ethical collaborations for South African craft enterprises on the pathway to becoming-resilient.

In practice, it is hoped this model can offer a practical guide for discussion about craft and design projects and facilitate engagement with practitioners from multiple disciplines. It is hoped that this model and findings will grow outwards and develop into diverse flexible and unexpected assemblages.

6.5.1 Limitations of the research.

A model is presented here based on literature and empirical data collected at two sites offering support to craft practitioners. The limitations of the research include specific challenges faced by individual practitioners that have not been included here and that may differ from region to region within South Africa.

6.5.2 Recommendations for further research.

There is an opportunity to test the model presented in this thesis and obtain feedback. The literature review highlighted some opportunities for further research such as; local replication studies based on interventions to support craft enterprises in the form of ‘virtual guilds’, open-source marketing platforms and virtual repositories for the preservation of culture and identity. Further research is needed on the provision of alternative economic models in support of craft practitioners in South Africa. Examples are provided here that leverage other forms of capital and more work needs to be done exploring alternatives in the context of decreasing funding being made available by government and the increasing need for entrepreneurs as formal unemployment is increasing in South Africa.

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APPENDIX A: Outreach Foundation consent form

Outreach Foundation
30 Edith Cavell Street, Hillbrow, South Africa
P O Box 17096, Hillbrow 2038
Tel: 011 720 7011
Fax: 011 725 2760
Boitumelo@outreachfoundation.co.za
www.outreachfoundation.co.za

31 October 2016

I Erica Luttich in my capacity as *Creative Director*)at the Boitumelo Project give consent in principle to allow Monica Di Ruvo, a student at the Cape Peninsula University of Technology, to collect data in this institute as part of her DTech (Design) research. The student has explained to me the nature of her research and the nature of the data to be collected.

This consent in no way commits any individual staff member to participate in the research, and it is expected that the student will get explicit consent from any participants. I reserve the right to withdraw this permission at some future time.

In addition, the company's name may or may not be used as indicated below. (Tick as appropriate.)

	Thesis	Conference paper	Journal article	
Yes	x	x	x	
No				

Erica Lüttich

31 October 2016

Inspiring Creative Journeys

Lutheran Community Outreach Foundation (LCOF)
Public Benefit Organisation section 18A (1)(a) number: PBO 930 011 884
Non-Profit Act, 1997 (Act 71 of 1997) Registration number: 041-238 NPO
VAT number: 4530253543

First National Bank
Acc No.: 62082998364
Branch No.: 250455 (Parktown)
Swift No.: FIRNZAJJ950