Chapter 1: Introduction

1.1 An introduction to design in a development context

This thesis is an exploration of the need for design training for craft enterprises in a development context\(^1\), and in particular, an investigation of design training strategies which will enable crafts people to analyse and define market needs and to design and develop new products with the aim of contributing to more sustainable livelihoods. In the majority of cases, these design approaches focus on the design of products, but in addition to this, the process of design thinking is explored as a tool for analysing and solving problems with a broader application than product design. As the research progressed, immersion in the selected research environment became an important strategy for enquiry and learning.

The project contributes to the knowledge base of the subject in the following areas:

1. The critical review

This includes a broad and detailed critical review of the literature and existing practice in relation to design training in a development context. This identified and analysed examples of the use of design training in development contexts since the end of the Second World War, in which design had begun to be used as a tool in economic development. The links between this activity and the growth of what is now understood as development theory and practice were explored and are discussed in more detail in a separate section (3.2), in which the development literature is reviewed with the aim of identifying and analysing relevant areas of development theory to inform the study. My findings were that development theory and practice, which is people centred and operates at a grass root level would be more suitable to this study than more ‘top down’ development approaches. The findings from this review have value to other researchers as well as providing a theoretical grounding for the design of the further field experiments.

\(^{1}\) The term development context has been adopted for this study as the primary descriptor of the environment in which the design training interventions will take place. It is defined and discussed in section 1.2.3.
Chapter 1 Introduction

2. The initial period of field research
This generated a detailed analysis of existing design training practices and built upon these to design a range of new training strategies.

3. A period of immersive field research
This twelve month period enabled me to test and apply the learning to date and formulate workable and sustainable strategies for engaging with and training crafts groups. It was found that these strategies enabled crafts people to develop alternative designs for their products, improve marketability and contribute towards more sustainable livelihoods.

4. Training strategies
The training strategies resulting from this period of fieldwork were tested and developed into a bilingual training framework supported by a series of key principles to guide the engagement of design practitioners with crafts people in particular development contexts.

The specific geographic focus of this study was South India and in particular the state of Karnataka. The rationale for this decision was based on the identification of existing design training activity in the area, evidence of wider acceptance and support of such activity, access to contacts, and an invitation to participate in future training activities. This decision process is discussed in more detail later in the thesis (1.2.2 and 4.2.5). The particular development focus identified for this study was the crafts sector. The majority of my time in the field was spent working with potters, although I was also able to work with a range of other crafts people such as weavers, carpenters, wood carvers, stone carvers and tailors (4.2).
Chapter 1 Introduction 1.1.1

1.1.1 The aims and objectives of the study

- **Aim**

To investigate a strategy for basic design education which is appropriate to the needs of artisans in a specific development situation.

- **Objectives**

**Objective 1:** To investigate and evaluate the role of design in development programmes.

**Objective 2:** To investigate and evaluate education and training programmes which relate to, or inform the field of design in developing countries.

**Objective 3:** To propose and evaluate a framework of principles on which a programme in design training might be based.

**Objective 4:** To design, pilot and evaluate, via field experiments, a series of strategies and approaches for training. These would assist in enabling local people to identify, analyse and provide sustainable solutions to relevant design and production problems for products for everyday use for local markets.

1.1.2. Primary assumptions and key principles underpinning the study

The primary assumption of this investigation is that there are skills and processes used by trained designers and in particular product designers, which would be of benefit to crafts people and groups in a development context. This contention is of course not new. Since the middle of the twentieth century, authors and practitioners have explored the idea that inherent in the practice of design, there is a set of skills and processes that may be of benefit to crafts people working in areas of product development in development contexts (Er and Langrish, 1992 p2). The history of these ideas is explored and discussed in the literature review and development theory sections (3.1 and 3.2). During the critical review, studies were identified which, although they did not address design training in detail, they referred to it as being important (Bonsiepe, 1973 p13, Mullin, 1978 p21, Pacey, 1992 p224, Papanek, 1983b p61, Poston, 1994 p118). It was also indicated by Guimarães as an area of need for further research in his 1995 doctoral study (Guimarães, 1995 p290).
Chapter 1 Introduction 1.1.2

Based on this evidence there is a clear need for structured investigation into the most appropriate method of providing design training as a means of enabling crafts people to engage in new product development practices, which will contribute to more sustainable livelihoods.

- **Key principles underpinning the study**

These will be discussed and explained in full at the appropriate point in the thesis. It is, however, helpful at this point to highlight three references, which encapsulate and inform the intention of this study and the purpose of these principles.

The first is taken from *Small is Beautiful* by EF Schumacher. In this passage, he addressed the relationship between theory and practice. According to Schumacher:

> The best formulation of the necessary interplay of theory and practice comes from Mao Tse Tung: Go to the practical people and learn from them, then synthesise their experience into principles and theories; and then return to the practical people and call on them to put these principles and methods into practice so as to solve their problems and achieve freedom and happiness (Schumacher, 1973 p 213).

Although this statement could be said to be written in the language of political ideology, Schumacher emphasises the importance of people-centred development approaches and the reinforcing of indigenous technical knowledge as a basis for further development. In the ‘Post Development Reader’ by Majid Rahnema, the preface to a chapter entitled ‘Towards the Post-Development Age’ quotes a Chinese poem with a similar theme “Go to the people. Live with them. Learn from them. Love them. Start with what you know. Build on what they have. But of the best leaders when their task is done, the people will remark: We have done it ourselves” (Rahnema, 1997 p275).

The second is taken from the conclusions of a doctoral thesis by Luiz Guimarães. It typifies the approach that this research has sought to take: to explore training methods and to raise awareness of the potential of design thinking in the crafts sector in order to discover those crafts people who have innate design ability.

This thesis argues that to be able to interact with informally trained designers in the contexts of...Low Income Economies, formally trained designers have, as a point of departure to recognise the existing knowledge and experiences of entrepreneurs and that design is not the exclusive domain of educated professionals. Working at this level requires an approach, which values peoples ‘entrepreneurs and consumers’ experiences and an understanding of design in a wider sense as a basic human problem solving activity (Guimarães, 1995 p284).
Chapter 1 Introduction 1.1.2

This statement by Guimarães is supported by conclusions drawn from the writing of Pacey and Papanek, who in different ways emphasise the importance of recognising and working with informal or non-professional design ability (Pacey, 1992 p219, Papanek, 1991 p11). This position was tested in my own fieldwork and was found to be a helpful strategy in approaching crafts groups.

The third reference is a table taken from Robert Chambers’ book ‘Challenging the Professions’ (Table.1 p 6). Chambers is a professor at the Institute of Development Studies (IDS) in Brighton and he is recognised as being a key authority on the development of the theory and practice of participatory approaches to development (Cooke and Kothari, 2001 p7). In this table ‘The blueprint and learning-process approaches in rural development contrasted’, he highlighted the importance of grass roots people-centred development strategies. The principles in the learning process column provided a series of prompts that guided my engagement with this research, encouraging a people centred approach, which was informed by information gathered at a local level, working according to the timescales and priorities of the local people. These principles also informed the design of training strategies used in this study and stimulated further research into development theory and in particular participative approaches to development (3.2.3)

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2 Robert Chambers’ work has been an important source and influence on this study. The reason for this is that during my early research in development theory, I decided that participatory approaches to development interventions best fitted and supported how I wanted to engage with local populations in this study (This is discussed in more detail in 3.2.3). Robert Chambers is referenced because he is acknowledged as being one of the key authors in developing and refining participatory approaches (Cooke and Kothari, 2001 p5).
<table>
<thead>
<tr>
<th></th>
<th>Blueprint</th>
<th>Learning process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idea originates in</td>
<td>Capital city</td>
<td>Village</td>
</tr>
<tr>
<td>First steps</td>
<td>Data collection and plan</td>
<td>Awareness and action</td>
</tr>
<tr>
<td>Design</td>
<td>Static; by experts</td>
<td>Evolving, people involved</td>
</tr>
<tr>
<td>Supporting organisation</td>
<td>Existing, or built top down</td>
<td>Built bottom-up, with lateral spread</td>
</tr>
<tr>
<td>Main resources</td>
<td>Central funds and technicians</td>
<td>Local people and their assets</td>
</tr>
<tr>
<td>Staff training and development</td>
<td>Classroom, didactic</td>
<td>Field-based learning through action</td>
</tr>
<tr>
<td>Implementation</td>
<td>Rapid widespread</td>
<td>Gradual, local, at people’s pace</td>
</tr>
<tr>
<td>Management focus</td>
<td>Spending budgets, completing projects on time</td>
<td>Sustained improvement and performance</td>
</tr>
<tr>
<td>Content of action</td>
<td>Standardised</td>
<td>Diverse</td>
</tr>
<tr>
<td>Communication</td>
<td>Vertical: orders down, reports up</td>
<td>Lateral: mutual learning and sharing experience</td>
</tr>
<tr>
<td>Leadership</td>
<td>Positional, changing</td>
<td>Personal, sustained</td>
</tr>
<tr>
<td>Evaluation</td>
<td>External, intermittent</td>
<td>Internal, continuous</td>
</tr>
<tr>
<td>Error</td>
<td>Buried</td>
<td>Embraced</td>
</tr>
<tr>
<td>Effects</td>
<td>Dependency-creating</td>
<td>Empowering</td>
</tr>
<tr>
<td>Associated with</td>
<td>Normal professionalism</td>
<td>New professionalism</td>
</tr>
</tbody>
</table>

Table 1 The blueprint and learning-process: approaches in rural development contrasted, taken from Chambers, 1993 Table 1.2 p12.
1.1.3 The structure of the thesis

The thesis consists of five chapters:

- **Introduction (1)**

- **Research design (2)**
  
  This chapter discusses the research methods employed during the different phases of the research. In particular, it discusses the rationale behind the choice of techniques used to collect information in the field and the methods used to analyse it.

- **Critical review (3)**
  
  The critical review consists of four elements:

  3.1) Learning from the Literature: A historical overview of the published literature relating to the role of design in this context since 1945. Despite continued interest and activity in the role of design in development and particularly that of design training as a factor in economic development throughout this period, it was evident there had been limited connectivity with the principles of sustainable, people centred development.

  (3.2) Learning from Development: A review of the literature on development theory and in particular how this informed the design and intervention strategies used in this project. Participatory development approaches were identified as being the most appropriate to guide this study and that of grass roots design and development.

  (3.3) Learning from Practitioners: A discussion based on reflections and analysis of a series of interviews with design practitioners who are, or who have recently been active in a development context. This provided a range of practical, proven suggestions, such as taking time to build relationships whilst at the same time taking care to manage the expectations of the people you are working with.

  (3.4) Observation and Orientation: A discussion of the experiences gained from two field trips undertaken as part of the critical review as a means of gathering information on existing design training interventions. It was also an opportunity to observe and orientate myself with the broader context in which they took place and to select appropriate places and partners for future field experiments.
1.1.3 Learning from the field (4)

This chapter is an analysis and discussion of the two phases of field experiments undertaken as part of the research; the initial field experiments that took place in December 2002 (4.3) and January 2004 (4.4) and the main field experiments that took place as part of a twelve-month immersion exercise in South India August 2004 to August 2005 (4.5). The chapter discusses the findings drawn from each of the field experiments and particularly addresses what was learned by working with crafts people in a context and via a language which was not previously known to me, through the process of exploring ways to develop and use design training as a support for their crafts enterprises. The findings from this section address four areas; what I leaned from engaging with the people and context; the findings from the field experiments; practical observations drawn from the experience of running design training workshops in this context; and iteratively developing a training framework via immersive cycles of reflective experimentation.

1.1.3 Findings conclusions and recommendations (5)

This final chapter consists of five sections; following an introduction, key findings from the training interventions are discussed. Conclusions are drawn from the research and finally key principles of engagement for design practitioners and recommendations for further research work are proposed.

1.2 The design of the project

The following diagram, Figure.1 describes the research project, the activities which were undertaken and how they related to and informed one another. As can be seen, the project consists of two main activities: A critical review and a period of learning from the field. Although for the purposes of presenting a simple and understandable diagram these activities appear to take place chronologically, in reality as would be expected, the critical review activity continued for the whole of the project.
Figure. 1. A diagram of the research project.
1.2.1 A critical review

This section of the project consists of three elements: a critical review of the published literature relating to this field, exploring the published historical context and mapping the range of activity, which has taken place to the present day. In addition to this, firsthand accounts of practice are explored via a series of interviews with design practitioners and to gain a personal perspective and orientation, two short research trips were conducted to observe, record and analyse existing design training practices in development contexts. The detail of how the critical review was designed and conducted is discussed in detail in Chapter 2 (2.3.1).

- An appropriate timeframe for the study

Following an initial familiarisation period with the literature, historical parameters were set for the review. It was decided that published sources would be reviewed between 1945 and the present day. This decision was based on the following.

1. The literature from development studies pointed to a definable change in development activity and policy arising from changes in the political climate following the end of the Second World War (Cowen and Shenton, 1996 p5).

2. The first initiatives involving design in a development context followed these events in the mid 1950s (Er and Langrish, 1992 p2, Pulos, 1988 p241).

As discussed later in the thesis (3.2), some development theorists suggest that the ‘development era’ began with the inaugural address of the United States President H.S.Truman in January 1949 (Esteva, 1992 p6) (Gronemeyer, 1992 p62). Others would argue that this was merely the start of ‘development as practice’ or ‘intentional development’ and that development as a concept and practice has a much longer history (Thomas, 2000a p755). The social and political sensitivities of development activity and intervention are discussed in this section with particular reference to how to facilitate development which meets the real needs of the local population in a sustainable manner.

Whichever position one takes, the published evidence points towards the conscious inclusion of design in development strategies for countries and economies considered to be underdeveloped beginning in the period 1945 to 1955 (Er and Langrish 1992 p2, Pulos 1988 p241, Sparke 1989 p 144).
1.2.2 Learning from the field

This project was designed from the outset so that the primary research work would be conducted with crafts workers in a suitable development context; the learning drawn from the critical review would inform the design of prototype training interventions which would then be tested in the field; and the identification of the geographic focus of the research would be based on an analysis of information gathered during the critical review.

- Moving towards a geographic focus

The selection of the location was based on identifying circumstances that best supported the nature of the field research that would be needed for the PhD programme. Evidence of previous activities in this subject area identified during the critical review provided a context with a rich source of locally specific information within which to operate. The existence of government support for design as a tool in the development process was also identified as an important factor in providing a receptive context for design interventions.

1.2.3 Defining terms

The following terms were selected for discussion and definition because a clear understanding of how these particular terms were used in this study is necessary for the reader to understand its focus and intent. Other terms are defined in the glossary in Appendix 1.

- How to describe the context

An important and difficult term that required defining in this study was that chosen to describe the context in which the study would operate. There are many terms that have been used over the past fifty years to describe those geographic areas that are defined as being in need of development in some form or other. As Black states in her guide to international development, “All terms used to denote countries needing development have shortcomings. Axis descriptors – developing/developed, non-industrialized/industrialized, rich/poor – are all crude and value laden” (Black, 2002 p15).

She goes on to suggest that the term ‘third world’ is now not appropriate since the end of the Cold War, as this term was defined in opposition to the first world (the western capitalist countries) and the second world (the communist countries) (Black, 2002 p15). One positive aspect of the term ‘third world’ is that it was coined by the leaders of the countries involved. Although the term ‘third’ is generally accepted to describe those
countries that do not belong to the communist and western capitalist countries as stated above, others would suggest that it can refer to a third way or alternative way of governance in contrast to the other two systems (Thomas, 2000a p775, Thomas, 2000b p6).

According to Esteva, one of the key factors in defining those countries that were ‘developed’ or ‘under-developed’ and therefore a significant factor in coining the term ‘developing countries’, was the inaugural speech by USA President H Truman in January 1949. Esteva suggests that the statement in the speech which described some areas of the world as being ‘under-developed’ was a defining moment in the development debate, “On that day two billion people became under developed” (1992 p15). Singanpali Balaram, an Indian design theorist, discusses this issue in his book ‘Thinking Design’ in relation to the subject of design colonialisation. He prefers the term ‘majority world’ as a way of denoting the scale of the issue (1998 p57). A similar term, the ‘two-thirds world’ follows a similar logic and gives a more numerical focus.

Other terms such as ‘north’ and ‘the west’ or ‘western’ countries are used as descriptors of European and North American countries and are understood as being synonymous with developed countries. These terms are often objected to by developed countries in the southern hemisphere such as Australia. The southern hemisphere does have the majority of developing countries but as described, the term ‘the south’ can be misleading. Among others, Gui Bonsiepe suggests the terms ‘dependent countries’ or ‘core and periphery’, which again have a pejorative connotation but show a different aspect of the problem (1976 p13).

For the purposes of this study, the term ‘development context’ will be used, as it allows for a more specific definition of a piece of geography, or group of people in need of development. It uses the term ‘development’, as it is probably the most widely understood term relating to change in a given situation and in the context of this study it is used in the sense defined by Robert Chambers “…development is good change” (1997 p xiv ). In this study, the term ‘development context’ means any context, place, people, activity where a development opportunity has been identified. The development need and opportunity identified in this study was the use of training in design to develop innovative capacity and contribute to the commercial sustainability of crafts enterprise in Karnataka, South India. This term has been selected as it best describes the context in which this project takes place. However, there is a risk of confusion with other terms when the word development
is used in other ways. The term ‘product development’ is one of the core concepts of this study. A distinction is therefore drawn between its use connected with the word *product*, as a description of the process undertaken to take a product from idea to market and when it is connected with the word *context* as described above.

It is important at this point in the thesis to note that the term ‘development context’ in relation to this research study does not infer solely a geographic context, but more specifically working within the crafts sector in Karnataka in South India. The context was also defined by my work as an externally funded outsider on research focussed towards the social goal of exploring how design training can be used for enterprise development with the aim of establishing more sustainable livelihoods for crafts people. I was invited to become involved in existing projects by local organisations and was funded by a range of sources external to the crafts people, some local and some UK based.

- **The crafts sector**
  Because the primary subjects of this study were crafts people, terms need to be defined to describe them. In India, craft, or the interchangeable term ‘handicrafts’, is understood as “…creative products made by the skill of the hand without the help of modern machinery and equipments” (Government of India, 2008). Crafts were championed by Gandhi and described as ‘village industries’ as a means of practical independence from the then colonial powers (Gandhi, 1927 p456). Today, with a production population of approximately twenty three million, craft is a serious contributor to the national economy (Balaram, 2005 p13). The Indian government, under the auspices of the Development Commissioner Handicrafts, has set a broad agenda for development in what they term as the ‘crafts sector’, which includes the preservation of Indian cultural heritage and improvements in the quality of life of the artisan communities, as well as aiming to expand the potential of export markets. ³ For the purposes of this study, the terms used to describe the people and groups involved with craft will be ‘crafts person’, ‘crafts people’, ‘crafts groups’ and ‘crafts enterprise’ (For full definitions see glossary of terms, Appendix 1).

- **Product design and industrial design**
  The term product design has been chosen for this study because it encompasses a broader scope of design than industrial design, which is generally accepted to refer to products

³ For more information on the Government of India, Development Commissioner Handicrafts, see: http://indianhandicrafts.org.in/mission_statement/mission.htm
manufactured via industrial processes. For the purposes of this study, the term product design refers to the area of expertise concerned with the conceptual, formal and material properties of three-dimensional products for consumption, to be produced by a range of processes from hand-made to industrially produced. In the literature identified in this study the two terms are often interchangeable. Therefore, where the literature is being referred to both terms may be seen, but in all other cases, the term ‘product design’ will be used.

- **Indigenous knowledge and existing knowledge**
  The recognition of indigenous knowledge was identified as a clear theme in the critical review, highlighted by Chambers (1983 p82), Sillitoe (2000 p xv) and Brokensha et al (1995 p xv). I have chosen to use the term ‘Existing Technical Knowledge’ (ETK) rather than ‘Indigenous Knowledge’ (IK), as it more accurately describes the knowledge in question and the latter term IK has also been linked to specific activities related to the area of plant and seeds, or ‘Ethno-botanical Knowledge’, which carries the connotation of containing ancient knowledge (Brokensha et al., 1995 p1). The term indigenous knowledge is still used in the study but this is limited to quotations and when referring to existing texts. In this study, the emphasis is placed on the importance of identifying and acknowledging the existing knowledge base of the crafts people in order to establish a foundation of knowledge and respect on which to build (Poston, 1994 p114).

1.2.4 The Frame of the Study

At the beginning of the thesis, it is important to make explicit the specific and personal frame that bounded this particular study. This exists because of my particular engagement with the subject and field of study. It has been informed by the literature and interaction with practitioners in the chosen field and has been guided by the development of contacts and relationships, both in the UK as well as in developing countries. The frame informed the way I engaged and to a certain extent dictated possibilities in the project.

- **A personal frame**
  One of the key elements considered was my status and background as a researcher. Being a white male academic in his mid thirties, married with two children (two sons), placed me in a particular position. An example of this was my relationship with the crafts people in the village (Narayanpura), which in the early days of the fieldwork was helped greatly by the fact that I took my wife and two sons to the village. As the chief craftsman (RK) also
had two sons, a status symbol in itself, this was an immediate point of affinity and connection.

Choice is clearly another key factor that influences the personal frame. The choice to take my family into the field and the choice to limit contact with the ex-patriot communities in the countries visited was informed by the experiences and learning drawn from the study up to that point. The choice to conduct the final phase of the field experiments in India over a twelve month period had a significant influence on the project and was again informed by previous learning, particularly ethnography and development theory.

**Pursuing opportunities**

The availability of opportunities to pursue this research was affected by my personal circumstances. Opportunities were available to me as a British design academic with a range of published work in this field of study, which made it easier to approach fellow academics in developing countries. Connections via academic networks became the primary means of developing contacts for the initial and main field experiments, despite a large number of other routes being tried earlier in the project.

This process informed the project as collaborative opportunities were sought with institutions and individuals that already had a pre-existing working relationship with groups of crafts people. This approach, which is mirrored in the actions of a number of western-based Non Governmental Organisations (NGOs), is based on the evidence that sustainability of support for an intervention is more likely if a local partner organisation is the primary contact. An additional benefit to this type of relationship is the likelihood of language and other logistical support structures being already in place.

**Serendipity and persistence**

The majority of the contacts made and the subsequent invitations to take part in collaborative work resulted from a mixture of persistence and serendipity. At this point, it is useful to acknowledge that persistence is one of a number of characteristics of successful research, but it became increasingly clear during this study, particularly when developing contacts and pursuing opportunities in development contexts, that serendipitous connections could not be overlooked. The important factor in these instances, which determined their value to the study, was the recognition of their importance to the
development of the research and that serendipitous connections should be pursued in order to maximise their potential value.

- **Unpredictability and planning**
  Engagement and collaboration with projects and colleagues in the development context during this project was often frustrating, for a number of reasons. Cultural differences, time differences, holidays, festivals and resource limitations all had an influence on the planning and development of potential research collaborations. These factors made for a highly unpredictable study environment, which required an approach that was determined and organised, as well as flexible. It became clear that detailed pre-planning alone could not ensure success; many options had to be explored before an opportunity could be pursued successfully.

The need for a self-reflective approach to preparation, flexible practice and analysing events became increasingly important. J Langrish, in a paper on case studies as a research method, discusses the importance of factoring in the availability of suitable opportunities when shaping the direction for a research project. It was recognised that this should not be discounted as a factor in this study, especially when considering the issues discussed above (Langrish, 1993 p8).

This thesis explores the potential benefit of design training for crafts people in a development context. The study takes a practical field-based approach using immersive reflective experimentation to engage with local crafts groups to propose and develop training strategies with the aim of contributing to more sustainable livelihoods. This field experimentation was informed by learning from the literature with particular importance placed on learning from experienced practitioners and understanding development theory and practice as it applied to this study. The field experimentation resulted in the identification of principles for engagement and strategies for design training that were supported by a range of bilingual training materials.
Chapter 2: Research design

2.1 Introduction
The research design process developed as the project progressed and was informed by the critical review, as well as by findings from the field. The selection and use of research methods evolved over the duration of the project. I have chosen to separate the discussion of the research into four sections; the first two explain the development of the research question and discuss ethics, followed by an explanation of the research process and a discussion of the research methods used and the rationale for their selection.

2.2 The development of the research question
The original research question was encapsulated in the title of the project, ‘What is…The appropriate use of design education in developing countries?’. Towards the end of the critical review phase, the research question was revisited in preparation for the main field experiments and the question was reframed as, ‘In what ways can indigenous product development skills be fostered in order to enable artisans to define needs and develop new products for everyday use?’.

The following statements qualify and explain the active words in the question:

*Indigenous product development skills*: The existing and traditional activities and processes of artisans that result in products for everyday use.

*Product development*: For the purposes of this study, a broad definition of product development will be adopted as described by Stuart Pugh in ‘Total Design’⁴, where he includes the whole process from the identification of need through to the market launch (Pugh, 1991 p6). Although this definition was originally authored to describe design from a western perspective, it was adopted for this project because of its simplicity and relevance to any process involving the development of a product.

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⁴ Pugh described the product development process as beginning with an understanding of the market from which a specification would be generated. This would inform the concept and detail design phases and the specification would then be updated to become the manufacturing specification and inform the sales activity.
2.2 Fostered: In the context of this study, the term ‘foster’ relates to the practice of encouraging, catalysing, facilitating and resourcing the development of skills or practices that have been identified as being beneficial. The changes to the question involving the terms described above reflect a process of focusing in the research, which was informed by learning drawn from the critical review (Chapter 3). The focus was refined to explore how to empower artisans with new skills to facilitate the development of new products, which would fit into local sustainable markets with the aim of contributing towards more sustainable livelihoods. This also strongly underlined the importance of recognising and valuing the indigenous skills and knowledge base and was used as a foundation on which to build subsequent skills, being careful not to devalue indigenous knowledge with the introduction of new knowledge (Poston, 1994 p2). The refined research question then shaped the objectives and design of the research for the second initial field experiment in January 2004 and the main field experiments and field immersion from August 2004 to August 2005, which are discussed in more detail in Chapter 4.

2.3 Ethics

When this study was registered in November 2000 there was no clearly articulated or consistently applied ethical framework in art and design research and because of this, there was therefore no formal ethical scrutiny of the research at its inception. If this research project were registered today, an ethics application would be required at the registration stage and probably before the fieldwork.

In order to explore how this research would need to be scrutinised and as an outline for further research in this area I have taken as a helpful framework the principles of ethical research from the Economic and Social Research Council (ESRC) and relevant sections of the ‘Application for Ethics Approval’ now in use at University of Wales Institute Cardiff.

The following headings describe the areas which require consideration and describe how the conduct of my research compared:
Chapter 2: Research Design 2.3

1. Research should be designed, reviewed and undertaken to ensure integrity and quality.

The project was regularly reviewed by the supervision team and the university research committees to ensure that the project adhered to the agreed guidelines for the integrity and quality of the research.

2. Research staff and subjects must be informed fully about the purpose, methods and intended possible uses of the research, what their participation in the research entailed and what risks, if any, were involved.

Initial meetings with the prospective research subjects informed them about the aims of the project and this enabled them to understand the implications for them and their business and provide informed consent to being part of the training. It also enable me to explore what in particular in the area of design and product development the crafts people wanted to concentrate on, what their commercial priorities and challenges were and if possible incorporate these into the design of the workshop. Because the research was intended to design and refine training strategies with the input of local craftspeople, the only risk identified was that the participants risked loss of income if they were not compensated for the time they spent in training.

3. The confidentiality of information supplied by research subjects and the anonymity of respondents must be respected.

All information collected about the research context and the subjects involved was stored in a secure manner and has not been shared with parties outside of the research project. Any publications about the project will be anonymised and if there is a requirement for data, images or other information to be disclosed, permission will be secured from the subjects involved in its origination.

4. Research participants must participate in a voluntary way, free from any coercion.

As stated above participants agreed to the purpose, methods and intentions of the research before they were involved in the project. Compensatory payments were made to participants but these were limited to agreed day rates and therefore according to the guidelines (see below), did not constitute an inducement to be involved in the training.
5. Harm to research participants must be avoided.
Care was taken at every stage to safeguard the research participants from both physical harm as well as other forms of harm such as economic damage to their livelihood and socio-cultural damage to their reputation and or standing in the community.

6. The independence of research must be clear, and any conflicts of interest or partiality must be explicit.
At the regular reviews, the research project and the people involved was scrutinised to ensure independence.

The statements above form a sound ethical structure on which to base future design training in development contexts. The only element of the above list which may be called into question in the existing project is point four which highlights coercion. As will be discussed in 4.2.6, various forms of incentive were explored and tested to encourage participants to become involved in the research. The payment of participants was established practice in this particular situation and was used as compensation for the time they lost from their income generation activity by being involved in the research workshops. This practice of compensation is recognised as appropriate practice in the UWIC guidelines for ethical research.

2.4 The research process
The research activity of this project consisted of two main elements: The Critical Review (Chapter 3) and Learning from the Field (Chapter 4). The following section describes the research processes used in these two elements.

2.4.1 The critical review
• Ground clearing
This project is one of a relatively small number of registered research projects which have engaged with the subject of design and in particular the role and impact of design training in a development context. At the beginning of the project, it was therefore necessary to perform a certain amount of ground clearing to define the focus of the research and to understand the other fields that would inform the project. Initially, the critical review was restricted to secondary, text-based research material, but it soon became clear that because there were very few published texts addressing the research topic it would be beneficial if
this material were augmented with primary sources, such as interviews with key individuals and first-hand observation of design activity in a development context. The critical review in its final form comprises of a review of the literature relating to design in development and a review of development literature as it relates to the subject. In addition to this interviews were conducted with seven practitioners (3.3) and observation visits to two developing countries. The analysis of this information is presented together in a single chapter (Chapter 3) and summarised in the findings in section 3.5.

**Establishing the ground**

In the early stages of the critical review process, in order to follow the principles of grounded theory a set of topic words and phrases was generated, drawn from the two major disciplines of relevance to this study, development and design. This set of topic words and terms described the breadth and nature of the ground on which the study was based and was developed and expanded as the study progressed.

Lists often communicate a sense of sequence or hierarchy. Therefore, the topic words and phrases are shown in Table. 2 as a single set, to illustrate that although these terms originate from the two disciplines, there are interactions and relationships between them. These topic words and phrases were held in no order and were used as search terms during the critical review phase of the research. The list is colour coded to illustrate the disciplines from which the topics originate.
Table 2 Topic words and terms used in the study.

As the project progressed, this list was refined and added to, to better describe the ground of the study. As will be described later in the section (2.4.1), these words and terms were the starting point for the concepts and categories used to analyse the information gathered and describe the emerging findings of the study.

- **Learning from the literature**
  The literature review was compiled primarily from peer-reviewed and published texts, as well as targeted primary sources. These were given importance over other sources, which were used to provide background and context to the study. The principles of grounded theory were used as a means of developing a series of topic words and terms, which described concepts and categories. These helped me to understand and categorise the broad spread of information being collected (Charmaz, 2005 p507). The application of the principles of grounded theory is discussed in more detail later in this section (2.4.1).
Chapter 2: Research Design 2.4.1

Early in the review process it became clear that there had been no previously published review of the literature relating to the role of design education in a development context, although two other smaller reviews were identified which had addressed related topics (Er and Langrish, 1992, Madge, 1993). As Glaser states, grounded theory is especially useful in areas where little research has previously been conducted as a means of opening up new areas of enquiry (Glaser, 1992 p32).

**The review process**

The first activity of the review of the literature was to conduct library searches. There are few books that directly relate to design in developing countries and so a wider search of related publications was conducted. Following this, in order to identify published academic papers and articles, data searches were conducted using web-based search tools, based on the lists above (which were augmented and refined with each search). Once this base of information had been identified, active authors were contacted to access further works. Particular focus was placed on registered research in this and related fields and the references sections and bibliographies of these identified research studies were a rich source of information. Conference proceedings were searched for, both those specific to the subject area as well as those which were more generic. In addition to this, fellow academics were contacted via web-based academic discussion lists5 and replies to such queries resulted in the identification of potential research collaborators. As a response to interest raised in such forums I initiated a more focussed web-based discussion list.6 The results from this phase of the research are discussed in (3.1) Learning from the Literature. In order to provide a context for this review of the literature, it is important to note that the fieldwork element of this research took place between 2001 and 2005. Publications identified within this period informed the design and implementation of the interventions in the field. Sources identified after this period were used to inform the analysis of the research and are cited in other sections of the thesis.

Conferences and journal papers are one of the primary ways of gauging academic engagement in a given field of interest. It is, however, also worth noting that in today’s

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5 Such as: the Jiscmail discussion lists facilitated by the Joint Academic Network JANET ‘Phd Design’ PHD-DESIGN@JISCMAIL.AC.UK and ‘Design Research’ DESIGN-RESEARCH@JISCMAIL.AC.UK - retrieved 10.4.12

6 I initiated the design in development online discussion list in May 2000. It was later transfered to a yahoo discussion group in collaboration with Maria Carmarcho, a design colleague in Colombia. It has now grown to over 200 contributors and can be found at http://www.groups.yahoo.cm/group/designindevelopment/ - retrieved 10.4.12
climate of increasing pressure in the academic world to publish, an increase in the number of publications does not necessarily denote an increase in levels of interest. Perhaps as a result of this situation, or the fact that design research is still a new subject in relative terms, the majority of conferences have followed a broad agenda. This situation is noted later in the review in relation to the design policy conference in 1982 (3.1.12). In terms of the discourse in this particular subject area, what seems to have happened is that a small number of papers were included in the larger conferences and either formed a separate small stream or were included as a best fit in the programme. These papers were often identified as being one-off papers produced by individual academics who were not engaged in on-going work in this area and with little evidence of activity in wider networks that would enable them to test their ideas. The result of these two factors is that discourse on design in development finds itself at the periphery of the academic debate in design. But perhaps more importantly, this situation has resulted in a relative lack of serious broad-based discussion in the field. This lack of a broader context for debate has recently begun to be addressed with a seminar series funded by ESRC7 and a new “Design in Development” special interest group, set up as part of the Development Studies Association. Although there is evidence of conferences in developing countries8 whose participants address some of the issues raised in this review, it is important to note that these conferences address design education in its broadest sense.

Learning from development theory

Alongside the review of literature relating to design in a development context, a more specific study was undertaken to understand development theory and its relation to the research (3.2). In order to understand the broad subject area, primers and readers were studied and following this, the review was focused on the areas of development theory which would directly inform the research. Particular areas of focus were grass roots, people-centred development and the literature relating to enterprise development and

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7 The ESRC seminar series “Educating Designers for Global Citizenship” consisted of four seminars which took place between November 2005 and September 2007, involving designers and practitioners from the UK and a number of international speakers. The seminar series was run by the Cardiff Group. For more information see: http://www.esrcsocietytoday.ac.uk/ESRCInfoCentre/ViewAwardPage.aspx?ts=3&data=z8HSy13fWwVY2sDO4JNP8oOLJqDqNq85AAWWmz6i4KYNcpwrKv0HEyvwauf4K0mCkXYTSXWvtzEDp130oHdZqyz65NHTSi8sQWx%2B%2FBCSmviBM%3D retrieved 10.4.12

training. Some of the key learning from development theory was drawn from participatory development approaches (PDA), such as guidance for approaching situations and communities and prompts about behaviours and attitudes and ‘levelling’ relationships when engaging with local people. PDA also provided a range of techniques and strategies for maximising engagement and the quality of information gathered in workshops. A good example of a participatory strategy to ‘level’ relations was ‘Do it Yourself’ discussed later in the thesis, where the external party asks that local people teach them a skill. In one small interaction this strategy places the expert in the position of the learner and values local knowledge.

**Learning from practitioners**

As mentioned earlier in the section, in addition to a review of the literature and as a means of gathering primary information on the role of design in a development context, semi-structured interviews were conducted with a number of key practitioners and academics. The interviewees were identified and selected as a result of the initial literature review. Other individuals were added as further opportunities arose because of the growing group of contacts interested and involved in the field. It was decided where possible to approach people who were identified as making a significant contribution in the subject area. At the top of this list were the two who are referred to as being influential in this field of study, Victor Papanek\(^9\) and Gui Bonsiepe\(^10\) (Madge, 1993 p153, Er and Langrish, 1992 p3). Six other people were selected to be interviewed because of their research or design initiatives in development situations.

- **Observation and orientation**

Alongside the review of literature and interviewing practitioners, two field trips were made to different developing countries. The purpose of planning these trips early in the project was to facilitate the observation of existing design and innovation activity, to test ideas taken from the literature review to see if they were valid in this context and to orient myself with the reality of engaging in design training interventions in this type of context. The reflections from these trips informed the design of field experiments later in the

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\(^9\) Victor Papanek died the year before this study was started, so evidence of his influence in the field had to be taken from his widespread writings, along with comments from others he had influenced.

\(^10\) In the case of Gui Bonsiepe, I pursued an opportunity to interview him as part of the Mind the Map Design History conference in Istanbul in 2002. A staged interview was conducted based on questions drawn from Bonsiepe’s writings and publications referring to his work and influence. The resultant interview transcript following approval by Bonsiepe, was contextualised and submitted to the Design Issues Journal and was published in November 2003 (Fathers, 2003 p47).
project. An additional aim was to establish contacts that would provide potential locations and partners for the proposed range of field experiments. The choice of destination for these two trips resulted from initial contacts made during the early stages of the critical review. The first of these trips to Sri Lanka in June 2001 took place alongside my role as a supervisor of an undergraduate student design project, which was a collaborative initiative with Motivation\textsuperscript{11}, a design-based charity. A range of projects and training initiatives was observed and discussions held with potential research partners.

The second trip was made to Delhi in March 2002, facilitated by contacts made during a visit to South Africa in September 2001 to deliver a paper at the Design Education Forum of South Africa (DEFSA) conference. The initial aim of this visit was to explore the potential of working with researchers involved in a collaborative project between India and South Africa. A number of other meetings and interviews took place with a range of individuals and organisations to establish a baseline of design activity in the country, particularly in relation to artisans, and to develop contacts for future research collaborations and field experiments.

2.4.2 Learning from the field

At its inception, it was envisaged that this research project would have an element of testing in a development context. The rationale, which guided the selection of a specific geographic focus, is explained below.

As a practical first step, the parameters for the selection of a possible geographic context for the study were defined by referring to relevant published indicators from the United Nations Development Programme (UNDP) Human Development Indices, as published each year in the Human Development Report\textsuperscript{12}. In the initial stages of the critical review phase, I chose to concentrate on those countries identified as having development indices in the lowest 25%. As the project progressed it was necessary to further refine and justify a specific geographic focal area for the field experiments. A number of factors influenced this decision. A significant and often overlooked factor in such decisions is the element of opportunity. Since the beginning of the study in 2000, I had pursued connections and

\textsuperscript{11} Motivation is an international disability and development charity that was started by two designers from the Royal College of Art in 1990, working in low-income countries to enhance the quality of life of people with mobility disabilities. For more information see: \url{www.motivation.org.uk}, retrieved 10.4.12

\textsuperscript{12} For more information see: \url{http://hdr.undp.org/en/} and \url{http://hdr.undp.org/en/statistics/indices/}
collaborative relationships in a number of countries in Africa, South America and South Asia

**Identifying locations**

Another means of narrowing the geographic focus was to concentrate on countries identified as having some level of design activity related to this area of research during the critical review (Chapter 3). As a result a total of sixteen locations were identified (see Table. 3 p26). In ten of these locations, contacts were generated as part of the initial research phase. In five of these locations current design interventions were identified; these were India, Brazil, Sri Lanka, South Africa and Tanzania. From these five, invitations to collaborate in design training projects were received from nine projects in three of the locations.

The initial short-listing process adopted the following criteria:

1. Existence of design related activity
2. Access to contacts and information on these activities
3. Evidence of current design training
4. Evidence of wider institutional and government support
5. An invitation to participate in future design training
Potential locations for field experiments identified in the critical review

<table>
<thead>
<tr>
<th></th>
<th>Country</th>
<th>Existence of design related activity</th>
<th>Access to contacts and information on these activities</th>
<th>Evidence of current design training</th>
<th>Evidence of wider institutional government support</th>
<th>An invitation to participate in future design training</th>
</tr>
</thead>
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<tr>
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<td></td>
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<tr>
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<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
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<tr>
<td>3</td>
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<td></td>
<td></td>
<td></td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>Egypt</td>
<td>✓</td>
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<tr>
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<td>✓</td>
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<td>✓</td>
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<tr>
<td>7</td>
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<td>✓</td>
<td></td>
<td></td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>Nicaragua</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>Pakistan</td>
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<td></td>
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<tr>
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</tr>
<tr>
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<tr>
<td>15</td>
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<tr>
<td>16</td>
<td>Zaire</td>
<td>✓</td>
<td></td>
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</tr>
</tbody>
</table>

✓: Indicates a positive response to the criteria

Table 3 Potential locations for field experiments identified in the critical review

As a result of this process, three countries were highlighted as potential locations for fieldwork. The opportunities in these countries were then explored further to determine which would best support the fieldwork I intended to do in this study. Observation and orientation visits were made to Sri Lanka and India to gain a greater insight into the local context (3.4) and contacts were made during these visits with potential collaborative partners for the planned field experiments. Based on this information and the invitations from collaborative partners, the decision was taken to select a location in India as the geographic focus for this study. It was planned that a series of short training workshops would be organised as the main vehicle for field experimentation. Contacts were made via the literature review, and partnerships were developed during the observation and orientation visits, which provided the opportunity to refine the selection of the location of this training.

The history of design in India is both rich and ancient and findings from the literature suggest that it represents one of the largest geographic concentrations of design.
interventions with a development agenda. Another key factor in the decision to select India was the relationships I had already developed with the National Institute of Design (NID) and Indian Institute of Technology Delhi (IITD), coupled with the invitation to be involved in the facilitation of a series of workshops for the Mahatma Gandhi Institute for Rural Industrialisation (MGIRI). Following this initial fieldwork, other opportunities were identified which facilitated the subsequent fieldwork immersion.

- **Initial field experiments (phase one)**
  Two opportunities to act as a co-facilitator in design training interventions took place in December 2002 in Dehradun, North India (4.3) and January 2004 in Yelahanka, South India (4.4). Having had the opportunity to experience and reflect on these two short-term field experiments and being informed by learning drawn from the literature (in particular development theory and ethnography), it became clear that in order to understand the existing and potential roles of design training a longer period of time would be needed in the field (2.4.3). The reasons for this are discussed later in Chapter 4 (4.1.1, 4.1.2 and 4.5), but as Monahan and Just suggested, “Ultimately the key to ethnographic success is being there, available to observe, available to follow up, available to take advantage of the chance event” (Monaghan and Just, 2000 p23).

- **Twelve-month field immersion (phase two)**
  As a result of the second field experiment in Yelahanka (4.4), an opportunity arose to facilitate a twelve-month period of field immersion with these same partners and crafts groups. This opportunity was explored and resulted in an invitation to work as a resident researcher at Srishti School of Art, Design and Technology (Srishti) between August 2004 and August 2005. An employment package was offered which enabled my wife and two sons to also join me. (As is discussed later, this arrangement resulted in a number of benefits for the research). As the diagram shows (Figure 1 p9), a series of field

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13 The National Institute of Design in Ahmedabad was the first design school to be established in India following the Eames Report (3.1.5). For more information see: [www.nid.edu.in](http://www.nid.edu.in), retrieved 10.4.12

14 Indian Institute of Technology Delhi is one of the seven institutes of technology created as centres of excellence for higher training, research and development in science, engineering and technology in India, the others being at Kanpur, Kharagpur, Madras, Bombay, Guwahati and Roorkee. For more information see: [http://www.iitd.ernet.in/about/](http://www.iitd.ernet.in/about/) retrieved 10.4.12

15 The vision of MGIRI is “To accelerate the process of Rural Industrialization in the country along the lines of Gandhian vision of sustainable and self reliant village economy and to provide science and technology support to upgrade the products of rural industry so that they gain wide acceptability in the local and global markets”. For more information see: [http://www.mgiri.org/](http://www.mgiri.org/) retrieved 10.4.12
experiments was conducted and a system of training cards was iteratively developed to support the design training interventions during the immersion period.

2.5 Research methods

The following section discusses the research methods used in the project and the rationale for their selection. It is split into two sections dealing with the critical review and the fieldwork. The research methods used in this project were selected and approaches developed as the project progressed. A number of different methods were used as appropriate to the different elements of the research. This approach to qualitative research is described by Denzin and Lincon as “bricolage”. They describe this type of approach to research as “an emergent construction” which requires a range of research methods to understand and analyse the research as it progresses (Denzin and Lincon, 2000 p 4). Kincheloe describes this approach further as a means of actively constructing research methods which are appropriate to the research as it develops (Kincheloe, 2005 p325).

As a means of analysing and understanding the information gathered in the project I chose to apply some of the principles of grounded theory. The research began with a broad critical review of the literature, the work of existing practitioners and observation of and orientation with the chosen development context. These principles were used as a means of understanding and establishing a foundation on which to build the fieldwork element of the project and to understand and analyse the information collected throughout the project.

As the research moved from the critical review phase to the phase of field experimentation, it became important to develop a method of reflective experimentation which enabled me to take my findings from the critical review and apply them in a cyclical process of reflective experimentation in each field experiment, described in detail later in the chapter (2.5.3). This reflective experimentation was applied as part of an immersive approach to the research during which I was a participant observer. During this phase I used a range of techniques taken from participatory action research to gather information to feed into this reflective experimentation process.
2.5.1 Critical review

The research methods used during the critical review are described under the chapter sections headings below:

- **Learning from the Literature (3.1)**

  The main research technique used during the review of the literature was data searches using a range of topic words and terms. As described earlier (2.3), these topics were identified from background reading and then refined and added to as the critical review progressed. These data searches were directed towards the published literature as well as electronic information. Identified publications were read and notes made of the key learning points, these were then stored using the ‘Endnote’ referencing software. This provided a storage system that enabled me to keep records of all of the sources identified, including notes and quotations, in one electronic system which was searchable and allowed for easy cross-referencing of information. This electronic storage system was backed up where possible with physical copies of all published references and filed according to the reference number assigned to them by the Endnote software. The system not only proved to be a reliable way to store, search and retrieve published references, but because of the boolean search facilities enabled me to identify topics and key words and analyse emerging patterns.

  The review of the literature since 1945 identified that there had been a consistent level of interest in the role of design as a tool in development. Research pointed towards the need for design training at a grass roots level, but noted that care needs to be taken that this training focused on local need supporting sustainable development. There was little evidence of this design activity making any connections with or being informed by development theory or practice.

- **Learning from development theory (3.2)**

  The research methods used in the review of the literature relating to development theory were the same as those used in Learning from the literature (3.1). In this review of development literature, participatory development approaches and practice was explored in depth and informed my approach to the research context and the people I worked with.

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16 Endnote is a software based referencing system which allows information on literature and other sources to be catalogued and saved into electronic libraries. The information stored can then be retrieved and used as part of the writing process to create bibliographies. For more information see: [www.endnote.com](http://www.endnote.com)
Chapter 2: Research Design 2.5.1

alongside. In particular, it influenced my preparations for working with craftspeople, when I worked with them, what I wore, how I behaved and even how I travelled to the village. Adopting this development approach challenged me to think in a holistic way about how I engaged with groups of craftspeople. Participatory development approaches also influenced the design and development of training strategies used in the field experiments. I adapted established techniques used to facilitate group discussion and decision making and I adopted mind mapping as a means of facilitating translated training discussions.

- **Learning from practitioners (3.3)**

As described earlier in the section (2.3.1), in order to facilitate learning from practitioners who had first hand experience in design interventions in development contexts, informal interviews were conducted with practitioners.

**Interviewee selection criteria:**

1. They had been active as practitioners in the implementation of design and/or design training interventions in a development context.
   and/or
2. They had recently published work, which addressed the role of design education / training in a development context.
   and
3. They were available and amenable to being interviewed within the timescales of the project.

A series of questions was compiled which reflected the early stages of the project; these questions (as informed by guidelines from McNiff *et al* (2003 p122+124)) were designed to explore the issues which had been identified during the literature review. The questions used in the first interview were refined for subsequent interviews, improving them in order to collect more focussed information and to prompt discussion on specific issues (see Appendix 3). The use of a structured set of questions enabled me to provide consistency between the interviews in the information sought and later to facilitate comparison between the answers. One of the goals at this stage of the research was to identify potential case studies and design education initiatives that would merit further study.

The interview responses were compared and analysed using the concepts and categories identified earlier in the study (2.4.1). The learning drawn from these interviews informed
Chapter 2: Research Design 2.5.1

the framing of a set of principles (3.3.5) which informed the field interventions later in the study. The key points which were identified from these interviews was that it was important to take time to build relationships with people and understand the local context in order to be able to suggest sustainable development responses which ideally would be of immediate tangible benefit to the local crafts people. It was also valuable to identify and work with people who were already working in an innovative way and use them as role models for the other crafts people.

Towards the end of the fieldwork, two groups of people were interviewed: Facilitators who were involved in design training interventions with me during the immersion period (see 4.5.7 p312) and a representative selection of the participants from the final main field experiment. The findings from these interviews are discussed in Appendix 7.

- Observation and orientation (3.4)

Visits were arranged to contacts in two developing countries, Sri Lanka and India. Since these visits were my first experience as a researcher in the context in which the field experiments would be designed to take place, they provided the opportunity to observe existing design training practice, explore the research methods used and orientate myself with working in such contexts.

As a starting point, I explored a range of information collection methods taken from participatory action research, which enabled me, as a new researcher in the field, to observe, record and analyse the situations and circumstances with which I engaged. These methods are described in detail later in the section (2.4.3). This process enabled me to begin to formulate a strategy for cycles of reflective experimentation, the seeds of which had been prompted by learning from the literature. This strategy to facilitate reflective practice was refined through the period of immersion in the field and is discussed and illustrated in more detail in section (2.4.3).

These visits enabled me to become more familiar with the challenges and opportunities inherent in working with crafts people in development contexts. I was able to observe successful strategies used by others, such as training trainers, and the use of 2D and 3D sketching as a means of developing new designs. My observations also highlighted the importance of training being relevant to the locally available existing materials, facilities and resources.
Chapter 2: Research Design 2.5.1

- **Grounded theory**
In this project, the application of aspects of grounded theory were adopted as a means of understanding the whole process and progress of the project.

Goulding states that the concept of grounded theory is that the theory is grounded in data “systematically obtained through social research” (Goulding, 1999 p6). She continues by describing the origins of the method as developed by Glaser and Strauss, and published in their book ‘The Discovery of Grounded Theory’ in 1967. Goulding describes the theory they developed as being. “...ultimately grounded in the behaviour, words and actions of those under study” (p6). Another aspect, which she stressed, is that unlike other qualitative research methods, grounded theory allows an on-going analysis of the information collected from the early stages of the study (Goulding, 1999 p6).

Another reason why I chose to apply principles of grounded theory as part of the research methods for this project was because of its suitability for areas of study where there is little existing research. As Glaser stated. “If there is virtually no work in the area or just the barest of description, then grounded theory opens up the area with relevant concepts and hypotheses and has many directions and leads for future research” (Glaser, 1992 p32).

Charmaz (2000) draws the distinction between constructivist and objectivist grounded theory approaches, emphasising that a constructivist approach “…reaffirms studying people in their natural settings” (p510). She goes on to state that this approach is more appropriate for field research where the researcher or as she terms it, “the viewer creates the data and ensuing analysis through interaction with the viewed” (Charmaz, 2000, p523).

In particular, the compilation and use of concepts and categories were employed as a means of developing a deeper understanding of the issues of the project as it developed.

Charmaz states that

> Essentially grounded theory methods are a set of flexible analytic guidelines that enable researchers to focus their data collection and to build inductive middle range theories through successive levels of data analysis and conceptual development (Charmaz, 2005 p507).

This multi-layer analysis of collected data, which informed the defining and refining of conceptual categories, can be seen in this project from the early stages of the critical review. Initially, the topic words and terms generated as part of the critical review formed
Chapter 2: Research Design 2.5.1

the framework of concepts and categories. As each fieldwork initiative was undertaken, a
preparation document was written which set out the aims of the work. Once completed, the
work was then analysed and reflected upon. These documents display an evolving set of
concepts and categories, some of which are adopted and are refined, others of which are
removed in favour of a new perspective brought by subsequent fieldwork. These concepts
and categories, identified initially as topic words and phrases in the critical review, were
then refined and expanded upon (Charmaz 2005 p508) through the different stages of
observations and field experiments. The refinement of these guided the research and
eventually formed the headings under which the findings were arranged (5.2 and 5.3). This
process is best illustrated in the findings grid (Appendix 9).

Other aspects of grounded theory such as the close analysis of interview transcripts via
coding or via the use of computer programmes were considered to be inappropriate for this
research study because the focus on the words used can cause the reader to miss the
context in which they were used, as Charmaz states, the danger of this type of analysis is
that it can “fracture the data” causing the researcher to miss broader “meanings” in a
respondents story (Charmaz 2000 p521). Rather, interviews were used at the start of the
study to provide a context for the research, enabling me to understand how design might
operate in a development context and contextualising published information. Later in the
study they were used as a means of evaluating the training framework by collecting
responses from a range of expert users.

2.5.2 A methodical approach to fieldwork

This section addresses the development of research approaches relevant to fieldwork in a
development context. The methodical approach to the fieldwork element of this research
evolved as the project progressed. This evolutionary approach is explained by Srinivas et
al, 1979 “…the fieldworker cannot anticipate the developments in the field which will
inevitably guide his investigations. Hypotheses formed without regard to these
considerations may turn out to be trivial if not banal” (p7).

They continue by describing the common practice of entering the field without a fully
formed hypothesis and discuss fieldworker practice, which often applies theory to findings
after returning from the field. They then provide a helpful, pragmatic description of
fieldwork practice,
What most fieldworkers do is to go into the field with a grounding in the theory of the discipline, especially in the sub-area of their interest, and then with as much knowledge of the region as can be derived from secondary material. The field then takes over, and the outcome depends on the interaction between the fieldworker and the field (Srinivas et al., 1979 p8).

This second quotation reflects my view of the place and importance of fieldwork in the overall project, but also illustrates the challenge of the field “taking over”; of having to formulate responses to the field whilst being immersed in it, influenced by the realities and restrictions of living and working in this context. This responsive approach to field research is described in the models proposed in the next section (Figures. 2 p43, 3 p45 and 5 p49).

I decided early in my research to engage in fieldwork as a major part of this study. This decision was taken primarily because as a designer and educator I find that I am most effective when engaging practically with people and situations. I also became interested in working at a grassroots level as a result of my early reading of development texts.

The first decision in selecting research methods was whether to use qualitative or quantitative methods. I selected a qualitative approach because it seemed more suitable for understanding the qualities of the research context, enabling me to gather information as I engaged with the people and research environment. It also enabled me to reflect on and analyse the iterative development and testing of appropriate design training strategies. I rejected the use of quantitative methods for this study because the work I would be engaging with did not lend itself to surveys or determining the statistical significance of aspects of crafts practice. I was more interested in the reasons behind the statistics and how understanding them and suggesting changes could contribute towards more sustainable livelihoods for the crafts people (Silverman, 2000 p2).

As part of my preparation for the first field experiment in Dehradun I reviewed and discussed a range of suitable research methodologies with my supervision team, summarising them in a proposal for research methodologies. Ethnographic research approaches had been considered as the basis for the field research methods. However, as Hughes states, “Ethnographers do not set out to change the systems under study” (Hughes, 2001 p1), whereas the aim of this study was to explore ways in which design training could improve the livelihoods of crafts groups.
Chapter 2: Research Design 2.5.2

Action Research and in particular Participatory Action Research was identified as being appropriate for this study (Hughes, 2001). As discussed in more detail later in this section, these approaches are based on researchers “doing something and reflecting on what happens” (Hughes 2001p1). This approach is particularly relevant for this study because it embodies “a dynamic process of reflection and self reflection”, focusing on relationships and connections as a means of understanding different aspects of the research context. They suggest that researchers engage in a collaborative process, learning from and changing the way they engage to “attempt to remake and improve their own practice” (Kemmis and Mc Taggart, 2000, p578). The adoption of this research methodology laid the foundation for the cyclical process of reflective experimentation which enabled me to learn from and develop appropriate responses to the research environment.

Participatory action research approaches utilise a cyclical approach to learning in the research context and this way of planning, acting and reflecting on what had happened had resonances with the way I was used to working as a designer and reflective practitioner in education (Hatten et al, 1997, p5 and Hughes and Seymour-Rolls, 1998, p2). Within participatory action research, I considered a number of research methods for gathering information: Interviews, Research Journals, Memo’s to myself, Audio recording, Photographic observation and recording as well as online conversations. I used all of these methods during the fieldwork element of the research. See (2.5.3).

2.5.3 Fieldwork

This section describes my use of research methods in fieldwork. It begins with a discussion of time in the research context followed by a discussion of immersion as the overarching research method used. I then discuss how reflective experimentation, participant observation, grounded theory analysis, participatory and action research methods were used to facilitate information collection, reflection and analysis. In the section on reflective experimentation I describe the development of a cyclical approach to the field research, which facilitated a continuous cycle of preparation, participant observation and reflection and evaluation. These cycles built one upon the other to enable me to refine and focus the research activity. This was manifest in a refinement of my approaches to the people and context, as well as a refinement of the intervention strategies and training materials.
• **Time in the research context**

The issue of time spent in the field is a contentious one in development practice. Clearly, the financial implications of placing a development researcher in the field for protracted periods are cost inhibitive (Chambers, 1983 p61).

In the field of development studies, participatory development approaches are based on empowering local people to identify and address their own development needs. These development approaches are discussed in more detail in section 3.2. This sort of approach takes more time than an external ‘expert’ prescribing a solution without local consultation. Rapid Rural Appraisal (RRA) was one of the forerunners of participatory development approaches and as the name suggests, aims to minimise time spent in the field and to maximise the value of the time spent there. However, as Majid Rahnema argued in a critique of participatory development approaches, unless sufficient time is spent seeking to understand the complexities of a given development situation, no matter how sophisticated the participatory techniques are, they will fail to uncover the real needs of a community (Rahnema, 1990 p200). Chambers addressed this topic in his early work referring to models taken from anthropology (Chambers, 1983 p59) and later in his recent book ‘Ideas for Development’ (Chambers, 2005 p175) and in a specific paper on immersions (Chambers *et al.*, 2004 p1), stressing the need for time to observe, learn, question and reflect before making any response in a development situation.

There are many practical limitations which affect the decision to spend a protracted period of time in a given geographical research context. In this study, a compromise was sought between taking enough time to understand the research context and the costs of relocation and living and working there. Having weighed up these factors, informed by learning from the research to date, I decided to spend a twelve-month period in the field facilitated by a leave of absence from my employment.

From a design perspective, Lloyd-Jones suggests that designers need to spend time “living and working” with the people they wish to help, in order to limit “doing more harm than good” (Lloyd-Jones, 1976 p93); Bonsiepe and Ballyn (3.3.4) also support this approach. In his PhD thesis, speaking about design interventions in a community of blacksmitrns in Zaire, Poston stated “If any development is to be sustainable it must be based on a thorough understanding of the context in which it will occur. In almost every case where
inappropriate inputs are made it is due to assumptions arising from a lack of understanding of the context” (Poston, 1991 p151).

In India, Balaram proposed the idea of “barefoot designers” who were attuned to the needs of local communities by living with them and were trained to participate with local groups to provide local solutions to locally defined needs (Balaram, 1998 p103). His proposal was a response to his view that western-based design education models in India had served to disconnect design students from the needs of the majority of the Indian people.

Jeffrey Sachs the development economist and advisor to the UN Secretary General on the Millennium Development Goals, when asked by a design journalist in a recent interview what was the key for designers working in a development context, said “The key for designers is to understand the real needs of particular communities. Loose analogies are not sufficient. I recommend that all who are interested in these activities to make a special effort to understand the local ecologies and economies of the poor” (Lidgus, 2007 p4).

Time spent in a particular development context as a designer can be of little value unless it is spent ‘immersively’ so that a holistic response can be made to identified needs.

- Immersion

Experience gained from the initial field trials and reflective preparation for the next phase of the research suggested that immersion in a specific environment would be a beneficial strategy, in order to facilitate a deeper engagement with the research context. The purpose of this immersion was to understand the realities, frustrations and obstacles faced by the crafts people, which would be the subject of the research and to attempt to learn the local language in order to begin to communicate and build relationships. Immersion was used as a research method in this project to facilitate the proposal and testing of and including reflection on a set of principles, which would serve to guide the design of future training interventions for small crafts enterprises in similar development contexts. This cyclical process of testing and reflection is described in detail later in the chapter under reflective experimentation (2.5.3). This process was not limited to the iterative development of training strategies, but was adopted as a means of understanding all aspects of living and working in this context. The approach of reflective experimentation in conjunction with an immersive approach to understanding to the research context gave me sufficient time to
record, reflect and analyse the information I collected in order to develop workable and sustainable strategies for design training.

In the context of development practice, Robert Chambers discusses immersion in current development practice, commenting how little such approaches are used and emphasising the importance of such experience to inform development policy and practice (Chambers, 2005 p177). In another paper, he describes immersion as “Learning from poor people’s experiences” and discusses cyclical models for learning and action, which closely mirror those proposed by Kolb (Chambers et al., 2004 p8). These cyclical models influenced the development of my models for reflective experimentation discussed later in this section.

- **The focus of the immersion**

Experience gained during the first two field experiments clarified those specific areas of information to explore more effectively in an immersive manner. These were:

- The broader context in which the crafts enterprises operate.
- Attitudes of the wider population to the particular craft sector and the products they produce.
- The local geographic, cultural, socio-political and linguistic environment.
- The village context, relationships, hierarchies, caste, history, cycle of festivals.
- The production groups:
  - Their local relationships and collaborations.
  - Their relations to wider crafts groups.
  - The existing skills and practices used by the crafts people in developing new products.
  - The levels of skills in this crafts group.
  - The existing training processes.
  - The production environment, the volume of production and equipment available.
  - The raw materials, their source and cost.
  - The markets, their accessibility and an understanding of competition for this group’s products.
  - The support available to these crafts people in terms of finance, as well as support from crafts development organisations.
The breadth of this immersive approach focussed on the areas listed above and facilitated a training framework developed iteratively, via a series of field experiments and informed by feedback from local experts. This is discussed in more detail in (4.5.6).

**Positive and negative aspects**

The decision to adopt an immersive approach to this research has a number of positive and negative aspects. Overall, it enabled me as a training facilitator to gain both a broad and a deep understanding of the complex situations in which the crafts enterprises have to operate.

One of the positive aspects was the amount of time available to reflect on the situations I was observing, recording and analysing before I proposed any training intervention. This time allowed me to check and revisit situations and events in order to understand as fully as possible the complexity of the situation in which an intervention was to be proposed. These repeat visits allowed me to gain a more holistic understanding of the situation in question than would be possible with one-off visits (Monaghan and Just, 2000 p23). The aim of this information-gathering strategy was to ensure that training interventions were relevant to the situation in which the crafts people lived and worked. Although I chose not to live in the same village in which the crafts people lived and worked, this distance from the detailed reality of their everyday life was compensated for by spending time in these environments at different times of the day, from early morning to late evening (Chambers et al., 2004 p5).

Other positive aspects were that immersion allowed me to spend sufficient time in the research context to get over the various stages of culture shock. It enabled me to understand the country, the culture and the people in a deeper way than would be possible on a short-term visit; to experience the reality and challenges of day-to-day living; and to build relationships on which sustainable training interventions could be built.

The wider aspect of living and working in this context with my family provided a valuable additional element to the project, facilitating relationships with a range of work colleagues and friends. These relationships enabled me to triangulate the information that I gathered during my work with the crafts people and test ideas about my day-to-day experiences in

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17 For more information on the stages of culture shock see: http://www.worldwide.edu/travel_planner/culture_shock.html retrieved 10.4.12
the field by discussing them with work colleagues, fellow designers and educators as well as informally with neighbours and friends. These relationships also enabled me to gather helpful background information on the context in which the crafts people were living and working as well as the opportunity to check my thoughts and opinions as they formed. Part of this triangulation process also entailed checking my observations and emerging conclusions against my findings from the critical review, in particular interviews with practitioners as well as principles and strategies from participatory development approaches.

Spending time in the research context, not only in the workplace with the crafts people, but also in the wider interactions with day to day life in India, practising the language and observing reactions in myself and in others, enabled me to be more sensitive to the way in which training was being received and determined my future actions. A greater comprehension of the language was a major influence in understanding and interacting with the world around me and is discussed later in the thesis. My efforts in learning the language were also appreciated and received with generosity and goodwill.

A negative aspect of this type of immersive approach was costs in time and resources. This entailed securing a leave of absence from my employment, securing research funding, renting my house and moving my family. The detailed planning for this took place in six months, which in retrospect was not enough time. Other negative aspects related to the practical realities of living in India with a young family. Although there are significant benefits to be accrued from taking this approach, the pressures of everyday life, finding food, dealing with illness and supporting a family should not be underestimated. One unexpected negative aspect of this immersion related to the lack of time. As I had applied for a leave of absence, I was limited to a maximum of twelve months. Although in some respects this seems like a long period, in relation to understanding an indigenous community whose work is linked to an annual cycle of festivals and other events there is only a single opportunity to observe each of these events (Srinivas, 1976 p4).

Although any type of field research is extractive by nature (Shah et al., 1999 pF-ii), the model of immersion I adopted provided the opportunity for me to give something back to the community in the form of training that had been designed to meet the expressed needs of the local crafts community. In addition to training workshops, the crafts people were provided training materials in their own language, which reinforced the content of the workshops and supported the existing local trainers in order to build on this initial training.
Reflection in context

As part of an immersive strategy, Chambers explores the issues surrounding the need to facilitate attitudinal change in development researchers as a context for implementing participatory methods. He suggests that one of the weaknesses of development agencies is the lack of time and opportunity given to staff for learning by experience and time for reflection. He cites Cornwall and Pratt as saying that it is none too soon that the word ‘reflection’ is re-entering the vocabulary of development (Chambers, 2005 p176).

Chambers discusses the idea of immersion in the context of a recent shift in aid agency practice from fieldwork to policy. One of the consequences of the shift he identifies is a lack of opportunity to ‘ground truth’ projects. He notes the irony of the situation that now more than ever such agencies are stressing pro-poor policies but their staff are “…trapped …and cocooned in offices…in capital cities, isolated from the poor…Direct, profound and empathetic experience with poor people seems now largely limited to committed workers in some Southern organisations” (Chambers, 2005 p177).

He discusses the fact that immersions are not new and have been a part of the methodology of social anthropologists for many years. He cites George Orwell (1933) and Hans Singer (late 1930s) as examples of this. His view is that immersion as a technique within development has been slowly gaining popularity with agencies such as Action Aid India, SEWA in Gujarat and GTZ from Germany. The World Bank has also encouraged immersions for its senior staff, but according to Chambers, it is the only bilateral or multi-lateral agency to have done so. He concludes with a discussion of the effect on attitudes, which can be facilitated by periods of immersion. As is often the case with Chambers’ writing, he discusses the effects of immersion in terms that are generally not used by academics, such as ‘deep change’ and ‘transformation’.

He concludes with a statement that sums up the potential benefits of the technique:

"The personal meeting, as a learner and guest with a poor person as a teacher and host, the challenge to know how best to behave, and the need to adapt and be natural - the sheer unfamiliarity of it all with so much to take in, and then afterwards the opportunity to review reflect and digest the experience – are a powerful combination. The result can be more than new insights and things learnt. It can challenge values and beliefs and raise questions about the sort of people we are and want to be and what we do. (Chambers, 2005 p181)"
Chapter 2: Research Design 2.5.3

- **Participant observation**
  The research design and intention of this project is to explore strategies for sustainable design training interventions, which involves observing and recording the reactions of a target population while iterations of such strategies are developed. It is therefore appropriate to adopt an approach to the research based on participant observation, which is a fundamental technique used in anthropology and ethnography. Its origins are associated with Malinowski\(^{18}\), an early pioneer of the technique, who suggested extended periods of fieldwork during which the anthropologist should attempt to immerse her/himself in the daily life of the people being studied. The primary purpose of this approach being to “…minimise the interfering effect of (the visitor’s) presence and permit a full appreciation of the cultural meanings and social structure of the group” (Seymour-Smith, 1986 p216).

Hughes suggests that this method provides the means of building trust with a local community, slowly becoming “less of an outsider” and discovering firsthand about the ordinary life and work of a community. As Hughes explains, when used as an action research method (see participatory action research p50) as distinct from an ethnographic method, the aim is “… to improve an aspect of society by intervening to produce change” (Hughes and Seymour-Rolls, 1998 p1). The methodology of participant observation was used in the fieldwork in this project, to provide a framework for the collection of information. In each case, the ‘interfering effect’ of my presence was consciously minimised as far as possible, but it would be true to say that even in the immersion stage, the model of complete immersion was not practical. As a white, educated, male observer working in and with indigenous crafts communities, it was very clear that my presence had a noticeable effect on the behaviour of participants and trainers alike. The participant observer approach enabled me to reflect on this and take action to allow for such reactions and where possible minimise their further influence on the research process.

- **Reflective experimentation**
  The following sources influenced the development of my cyclical approach to learning from the field. From the point of view of participatory development approaches, Chambers suggests a model of “Preparation, Active Observation and Reflection” (2005 p179). He also discusses cycles of “Experience, Exchange, Evaluation and Change” in relation to

\(^{18}\) Bronislaw Kaspar Malinowski, (1884-1942) “A Polish-born anthropologist, Malinowski carried out his classic fieldwork in the Trobriand Islands, which was to be of immense significance in the establishment of anthropological fieldwork methods and particularly the methodology of Participant Observation” (Seymour-Smith, 1986 p176).
immersion in a development context (Chambers et al., 2004 p8). From the perspective of action research, Hatton et al suggested a similar cyclical model: “Plan - Experience - Observe - Reflect and Evaluate” (Hatton et al., 1997 p5) and again from action research approaches Hughes and Seymour-Rolls proposed a more simplified cyclical version of “Plan - Act and Observe – Reflect” (Hughes and Seymour-Rolls, 1998 p2).

This cyclical approach was adopted for this research project as it provided a framework for reflective experimentation. Having analysed the models identified, I proposed a three-stage model for this field research, which encapsulated my learning to date (Figure. 2). The term ‘Preparation’ is self explanatory and critical to a thorough readiness for the next cycle of interventions. The term ‘Participant Observation’ as described earlier was taken from anthropology to communicate involved observation. The two terms ‘Reflection and Evaluation’ were selected to communicate the need for both time to reflect on the cycle that has just taken place and the more focussed evaluation of events in order to understand them better and inform the preparation for further cycles of intervention.

This framework of preparation, participant observation and reflective evaluation provided a structured way to identify insights from the participant observation in the field and then use them in the preparation of the next research interaction. In practice, this model operates at two levels; at a strategic level and at a personal level. At a strategic level, the information gathered and experience gained from each field experiment is used to inform the design of subsequent experiments, ensuring that the methods of engagement, observation, recording and analysis are developed and refined throughout the process of

Figure. 2 Cycle of reflective experimentation.
field experimentation. At the same time, at a personal level this cyclical approach facilitated the practice of immersive learning and action, building relationships and reflecting on a wide spectrum of observed and experiential information gathering, prompting me as a researcher to observe, record and reflect on my interactions with people and situations. For example, the way a training workshop had been received, what had worked and what had not worked well as well as broader issues such as the range of factors which influenced a crafts person’s choices in developing their business.

Reflection and evaluation

One of the most important elements of this cyclic model is the reflection on and evaluation of what has just taken place in order to inform the preparation for the next cycle of field experimentation. This process of reflection and evaluation was facilitated by regular online discussions with my supervision team and informal discussions with local colleagues and contacts. I recorded and analysed my reflections and synthesised these interactions in a research journal. Elements of the research were also recorded photographically, which facilitated comparisons between the practices and products of different crafts groups. This process of communicating my on-going thoughts to external parties and engaging in discussions, coupled with self-reflection in a journal enabled me to step back and understand the wider context and thus inform the subsequent phases of the research. This process of immersive reflective experimentation facilitated the on-going iterative understanding of the context of my learning as I engaged with crafts people and development of design training strategies. This process follows the approach advocated by Srinivas et al earlier in the section when he suggested that the outcome is dependent on the interaction between the fieldworker and the field. (Srinivas et al 1979 p8).

Multiple cycles

As discussed, the cyclical approach is a helpful model to follow, prompting a reflective approach to the field research. However, when I began to use this model as a guide to engaging with craftspeople it soon became clear that what was happening was not a simple process consisting of one cycle. At its simplest level, each stage of engagement is a cycle, which builds on the last one.

The cycles of reflective experimentation (CRE) were used throughout the learning from the field as the basis for the methodological rigour of the study. The cyclical research approach enabled me to iteratively develop my response to the field through repeated cycles of
preparation, participant observation and reflective evaluation. Recording the process in research journals also enabled me to review my learning and discuss my on-going findings with local design trainers and colleagues. The CRE approach took the form of multiple research cycles over a twelve month period and was used to reflect on and iteratively improve design training strategies, working with translators and training support materials as well as reflecting on softer issues such as my impact as an outsider.

I have drawn out an illustrated two particular cases in the field research (Chapter 4) where these reflective experimentation processes were used. The first was in the way I began to approach and engage with the groups of crafts people (4.2.3) and the second was in the iterative development of the training support materials (4.5.6). In both of these cases initial preparation was based on learning from the literature and existing practice and then tested in a series of interactions with groups of craftspeople. The reflective experimentation framework then prompted iterative learning and refinement of response with each cycle of interaction informing the preparation of the next.

Figure 3 Progressive cycles of reflective experimentation.
Chapter 2: Research Design 2.5.3

The model above (Figure 3) illustrates progressive cycles of reflective experimentation, showing how knowledge and experience is built following each cycle of experimentation.

The gradient in this model denotes increased learning from the previous cycle or activity. The idea of using a gradient to illustrate increased learning was inspired by Kolb’s discussion of different models of learning and in particular those proposed by Dewey (Kolb, 1984 p23). A simple spiral model of learning is also proposed by Fowler (2000 p137). My model of reflective experimentation was devised and refined during my time in the field, as a means of describing my response to the complexities of the situation.

- **Reflective practice**

  An integral part of this cyclical approach to the research is reflection on experiences and observations. In ‘The Reflective Practitioner’ (1991), Schön describes a process of reflecting on one’s actions, understanding the tacit knowledge that is often overlooked and then using this to inform future actions and build new knowledge. He describes this as “knowing in action” (p 49) and suggested that it is an intrinsic part of being a competent practitioner. He then went one stage further and described a process of “reflection in action” (Schön, 1991 p54), which informs the continuous development of a practitioner’s actions. The cyclical approach to the research described above, informed by Schön’s theories on reflecting on and in the process, was adopted in this research project as a means of making sense of the large amounts of information being gathered as part of observing, living and working with crafts people during the field experiments.

  The following learning model proposed by Hatten (1997 p5) (Figure 4), was identified as an example of a more complex model of learning which took uncertainty into account as an important part of the process. Hatten described a process of double-looped learning, which she proposed as her interpretation of the process of reflective practice described by Schön (Schön, 1991 p49). She devised this model based on what she described as Schön’s basic argument that “problems do not present themselves in neat packages” (Hatten et al., 1997 p6). She continued by quoting Schön, saying, “Problems are problematic situations which are puzzling troubling and uncertain and which can be described as dilemmas” (Schön, 1991 p40). Hatton devised this model to reflect more accurately the complexity of research in a field context.
Chapter 2: Research Design 2.5.3

The model devised by Hatten attempts to illustrate how complexities encountered in the field can be addressed, allowing for an alternative cycle prompted by a ‘dilemma in experience’. However, having tried to apply it to the cycles of reflective experience undertaken in this research, I found that it didn’t fully explain the research process I followed or give a sense of progressive learning.

As the project progressed I began to develop a model and way of approaching reflective experimentation which took into account unexpected events. Building on the previous models (Figures. 2 and 3), I added an alternative loop to each cycle to address unexpected events. The following diagram (Figure. 5) illustrates more closely the cyclical developmental process of reflective experimentation followed in this research. The model illustrates the process of experiential learning that took place, showing the way that

Figure. 4 Process within the Reflective Practitioner (Hatten 1997 p5).
unexpected events were responded to and how the learning from this is reflected upon to develop a better response in the next cycle.

A particular example of this would be the testing of a new training technique and how the support materials worked. As I have experienced as a design educator, a lecture or workshop often doesn’t follow the original plan. In my engagement with crafts groups this experience helped, but the potential for the ‘unexpected event’ was more pronounced. The ability of responding to such an event during the workshop and re-designing the training in the moment illustrated another level on which this model was used, both to reflect on experiences that had taken place but also to use the same process to make changes as the training progressed. The important lesson I learned in these situations was then to reflect on what had worked, what needed changing and why, but also the circumstances which prompted the change and if there were any lessons to be learned from them. To ask myself whether this was a one off, had my actions or reactions prompted the event, or was it an outside influence?

It is important to note that my personal reflections were only part of the CRE process. As described earlier in this section during the immersion period I triangulated my observations and reflections by discussing them with local experts, local colleagues, visiting academics and students as well as my supervision team in the UK via email and weblog. An example of this was discussing my on-going observations from field experiments with Poonam Bir Kasturi and Swati Unakar who were experienced crafts trainers. Other discussions with colleagues and friends helped me to understand the environment in which the crafts workers were living and working. The results of these discussions were fed into CRE process.

The term ‘change’ was selected to describe the incremental differences between cycles after Chamber’s definition of development as “Good Change” (1997 pxiv). In this diagram, the learning from one cycle to the next is illustrated by the gradient and each cycle of learning is differentiated by an increasingly deeper tone.

As described earlier, the model illustrates the macro process that is taking place from one intervention activity to the next. But perhaps more importantly, it also illustrates at a micro level the thinking processes of the intervener as s/he encounters and responds to the complexity and uncertainty of a fieldwork situation. In a training intervention, these cycles
take place continually as the facilitator actively observes, evaluates, reflects and changes her/his actions in response to unexpected events.

Figure 5 The cyclical development process of reflective experimentation.

The use of this model in my approaches to the crafts groups was another good example of cyclical learning which needed to be flexible to respond to unexpected events. A clear example of this is reported later in the thesis (4.2.4) where I was in danger of offending the crafts people by resting my foot on a potters wheel. The theory of cultural practices was reinforced by my mistake and the response it provoked. This incident also illustrates the longer term cyclical reflections required when attempting to build relationships with a group of people. For example the need to reflect on motivations both in myself as well as in others and on unspoken messages and reactions from the wider group.
Participatory action research

The primary research method, which informed the collection of data during the research in the field, was participatory action research. As described by Ian Hughes in an Action Research Reader, action research (AR) is “…a systematic process of creating public knowledge by doing something and reflecting on what happens” (Hughes, 2001 p1+5).

Bradbury and Reason expand on this definition suggesting that Action Research is a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes grounded in a participatory world view which we believe is emerging at this historical moment. It seeks to bring together action and reflection theory and practice in participation with others in the pursuit of practical solutions to issues of pressing concern to people and more generally the flourishing of individual persons and their communities.

They continue by suggesting that, “the primary purpose of action research is to produce practical knowledge that is useful to people in the everyday conduct of their lives” (Bradbury and Reason, 2001 p2).

These two sources and other wider reading of the practical application of action research are the basis for the selection of participatory action research methodology as being the most appropriate for this research project.

Information collection techniques

The Action Research umbrella encompasses a range of information collection techniques. A number of these were adopted in this project to facilitate the recording, analysis and reflection on the research and are explained and discussed in turn below.

Memos to myself

“Memos to myself” are suggested by Sankaran as an aid to the on-going process of reflection and analysis (Sankaran, 1997 p1). This technique was adopted for reflection and communication with my supervision team, especially during the immersion phase of the fieldwork but also during other field experiments. Initially emails were used, then in the immersion phase a ‘weblog’ (blog) was constructed with posts and responses from the team.
Chapter 2: Research Design 2.5.3

This process did not work as well as expected. As a replacement for this, a more conventional text-based discussion and feedback system was introduced which consisted of a ‘Microsoft Word’ document sent by email, which was then amended and developed using the ‘track changes’ facility, as the document was sent between the members of the supervision team.

*Journaling or keeping a research diary*

Hughes suggests that keeping a research journal is an important tool which facilitates each stage of the research cycle: plan, act, observe, reflect (Hughes, 1996 p1). As part of each period of fieldwork a diary was kept, split into two sections of ‘observations’ and ‘reflections’. As McNiff suggested, I often found it more convenient and less disruptive during interactions to carry a smaller notebook to make immediate notes during the day and then write up my notes into a larger reflective journal in the evenings (McNiff et al., 2003 p107). In two cases in the early stages of the fieldwork, an audio diary was also kept which helped to capture thoughts, reflections and feelings resulting from being new to the context of the field. These recordings were reviewed and where necessary transcriptions were made and filed in the project archive.

I used a mixture of journals and photographic recording during fieldwork. These field notes were then revisited at the end of each day, and written up in a reflective journal. As the project progressed these journal entries were analysed, noting similarities and differences in the reactions of crafts people to training strategies in different training contexts as well as reflecting on my observations against my expectations. My ongoing findings and conclusions were discussed with local experts and colleagues, asking questions such as: ‘Why did they think such an exercise had not worked?’, ‘How did they work with translators?’ ‘Was I misreading a given reaction, or response?’ This ongoing analysis was used to inform the preparation for the next cycle of the research.

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19 The problems with the weblog system were partly due to technological limitations associated with accessing the internet when needed and also dial up connections providing insufficient bandwidth to upload sufficient amounts of data. But perhaps more importantly because this type of communication medium was new to all parties, it would have been better to set the system up, make sure everyone could access it and test it before moving it to India, in order to allow time to work out any problems.
Chapter 2: Research Design 2.5.3

**Informal interviews**

Informal interviews were used at different times of the research project to collect information from individuals; McNiff *et al.* provides a helpful set of guidelines to facilitate a free-flowing interview (McNiff *et al.*, 2003 p124). In the critical review, interviews were used to gather information from practitioners (3.3) and later in the research they were used by a group of students as part of an asset mapping exercise\(^{20}\) (4.2.3) to collect background information on the crafts community. This provided a more detailed understanding of the context in which these crafts people lived and worked. At the end of the immersion field research period, interviews were used as an evaluation tool following the final field experiment (4.5.6).

**Photographic observation and recording**

Photography was used as an action research tool for recording and representing experiences and environments (McNiff *et al.*, 2003 p126). Images were taken of the living and working environments, the products and artefacts produced, the processes used and the people involved. The working environments were recorded in as much detail as possible including the storage, preparation, manufacturing and retail spaces used. Srinivas, an anthropologist, used photography to facilitate and improve interactions with local people (Srinivas, 1976 p331). In 1947 when he was working in rural India, he capitalised on the novelty of a camera. In 2004, it was possible to capitalise on the novelty of a *digital* camera with its facility to show instantly the image taken as a novel way to initiate conversations, which worked particularly well with children. Ballyn noted that initial conversations with children prompted by such interactions were often a helpful way to initiate more meaningful contacts with adult members of a crafts group (3.3.3).

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\(^{20}\) Asset Mapping is a set of strategies taken from participatory development approaches, whereby the strengths of a community are mapped and highlighted. This practice contrasts with and was developed in response to the previous practice of needs analysis, which was seen to have a more negative impact (Kretzman, 1993).
2.6 Summary of key issues

The investigation of appropriate research process and methodologies for this project highlighted the following key issues.

- The findings from the critical review and early field experience formed a ground for the study made up of participatory development approaches, participant observation, design theory and product development good practice.

- This ground formed the base upon which the cyclical approach of experience, observation, reflection and planning was operated (CRE).

- An immersive approach to the main field experiments provided time to understand the research context and followed good practice for anthropology and development studies.

- A cyclical approach to the field research provided a framework which ensured that observation and reflection were an integral part of the research process. As described earlier this cyclical process took place both at a strategic and personal level, both of which informed the on-going immersion and the planning of each successive design intervention.

- Action research methods and tools were helpful in collecting information, as well as reflection and analysis, which also informed the development of a cyclic model of reflective experimentation (Hatten et al., 1997 p2).

- Adopting a participant observation methodology provided a means of minimising the influence of my presence in the research context, in order to provide a truer picture gathered first-hand of the reality of day-to-day life, which in turn informed the design of future interventions.
Chapter 3: Critical review, design in a development context

3.1 Learning from the literature:

A historical overview of design in development since 1945

3.1.1 Introduction
This section provides a critical review of the literature relating to design in developing countries since 1945. Taking a longer view, the activity of design has existed since man began to shape tools and this is no less true in countries that are now designated as ‘developing.’ A number of authors suggest that although design practice in its current form is a relatively new activity, practices, which would be recognised as design, have taken place for hundreds if not thousands of years. Ghose suggests that in the context of Asia it would be more helpful to view design as an ancient activity rather than a modern profession (Ghose, 1995 p182). From an Indian perspective, Balaram agrees with this broad understanding of design, which recognises its roots in the traditional crafts practices (Balaram, 1990 p48). JC Jones, discussing the history of design activity in Britain, points to its origins in the crafts (Jones, 1981 p15). From an African perspective, Odoch Pido comments on the existence of well-designed functional objects in pre-colonial Kenya pre-dating any formal training in what would be recognised as design (Pido, 1993 p10).

A note on crafts
In view of the title of the study, it is important to explain the relative lack of reference in this review to crafts, particularly in India. During the review, little of significance was found of an academic nature relating to crafts. The majority of the review was conducted before the immersion period; during this time I was able to understand more about the way designers engaged with this sector. Since the Eames’ report (1991) there has been continued interest and activity, but little has been reported or researched. The main bodies engaged in activity in the sector are the design institutions. This activity can be categorised into two main areas: The first focussing on the historical and cultural documentation of crafts deemed to be dying out and the second focussing on supporting continued crafts.

21 The rationale for the start date of this review is discussed in Chapter 1 (1.2.1).
practice. This support largely takes the form of workshops for crafts people organised by the national government bodies such as MGIRI and Kadhi and Village Industries Commission (KVIC)\(^{22}\) along with regional organisations such as the Karnataka Handloom Development Corporation (KHDC). These organisations approached the outreach departments of the Indian design institutions to run these training workshops. They in turn approached their alumni to design and run the workshops. The workshops were documented by the facilitators in order to report back to the government bodies, but no research was identified which either informed these workshops or determined their impact.

**Design**

The word ‘design’ has Latin roots\(^{23}\) and therefore its meaning is rooted in a European understanding of the activity. When discussing design in a crafts training situation, it is helpful to note that understandings of the term design differ in non-western contexts. Ghose discusses this point from an Asian development perspective, adding that recent additions of design terms in this context have brought with them “… all the ideological underpinnings of First World associations” (Ghose, 1990 pv). In a number of countries, the word does not exist and therefore the concept is understood in a different way. In many languages (e.g. Finnish, Chinese, Turkish and Greek), there is no exact equivalent\(^{24}\). Kati Reijonen, a designer with experience of working in a number of development contexts, states that the majority of indigenous languages she has experienced in Africa and the South Pacific lacked an equivalent term for design (Reijonen, K, personal communication, 15 June 2001).

In the context of India, Balaram describes common understandings of design and how they contradict western-based understandings. What would be understood in the west as design, is not recognised in the Indian crafts context as being worthy of the term, whereas in India the term describes what would be understood in the west as decoration.

\(^{22}\) The Khadi and Village Industries Commission (KVIC) is a statutory body established by an Act of Parliament (of the Indian Government). In April 1957, it took over the work of former All India Khadi and Village Industries Board. For more information see: [http://www.kvic.org.in/v4/homepage.asp](http://www.kvic.org.in/v4/homepage.asp) retrieved 10.4.12

\(^{23}\) *designare* to determine (Bürdek, 2005 p13)

\(^{24}\) Taken from messages on the design in development online discussion list. Retrieved from [http://www.groups.yahoo.com/group/designindevelopment/](http://www.groups.yahoo.com/group/designindevelopment/) on 23.7.04
This understanding, he explains, is driven by the cultural influences and understandings of traditional crafts practices (Balaram, 2005 p11). My own experience in India bears this out. When trying to communicate the concept of design in a training context, the closest term had to be used and then explained and illustrated in relation to the specific activity and application.

### 3.1.2 Design as a factor in development

The earliest published references to such activity related to arts and industries schools operating in India before 1851. These schools were set up by the British colonial administration and there is evidence that they produced an exhibit for the 1851 Industrial Arts Exhibition in London. This exhibit was considered by Owen Jones, the author of ‘The Grammar of Ornament’ (Jones, 1856), as being “the most perfect in design of any that appeared in the exhibition…a boon to the whole of Europe” and was bought in its entirety by the South Kensington Museum (Ashmore, 2008 p1). Ghose also suggested that it was purchased as a teaching tool for design students (Ghose, 1995 p192.). This clearly indicates that the output of these schools was valued in terms of design. Since 1835, there had been a movement in Britain to establish art and industry schools in a number of cities including London and York and it is probable that the schools in India were an extension of this scheme.

GV Soumitri discusses the influence of these schools in India, citing a lecture on the links between art and industry, which took place in Calcutta in 1854. However, he states that as early as 1773 the prowess of the Indian craftsman was being commented on favourably by the functionaries of the colonial powers (Soumitri, 2002 p2). In this period of colonial rule it is unclear what the aim of such education might have been; Ghose suggests that in the later years of colonial rule these establishments had limited their activities to the training of workers to implement designs sent from Britain rather than the development of indigenous designs (Ghose, 1995 p193). This was clearly not the case in 1851 when the exhibits were bought as examples of excellent indigenous design. Balaram suggests that towards the end of colonial rule, these schools introduced a ‘modern’ system of education which replaced

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24 In 1835-6 a select committee of Arts and Manufactures was set up, and following that the Government School of Design was established in 1837. For more information see:
http://www.vam.ac.uk/nal/findinginfo/info_history/index.html retrieved 10.4.12
an ancient system of “Shastras”26 (Balaram, 2005 p11), with the intention of producing “copyists” to serve the colonial administration: “They ruined local creativity and design talent…”[resulting in]… lasting damage to the confidence of Indian crafts people and craft learning” (Balaram, 2005 p12).

As will be discussed later in the thesis (3.2), the period following the Second World War is recognised as being the beginning of development, or at least a new era in development (Corbridge, 1995 p1, Esteva, 1992 p6, Cowen and Shenton, 1996 p5). In the decade following the end of the war, design began to be used in development activity, as noted by Papanek (1986 p43), Er and Langrish (1992 p2) and Margolin (1989 p277). In a recent paper, Victor Margolin suggests that although there is evidence of design being used in development activity for some time, it is almost non-existent in the literature on development theory (Margolin, 2005b p1). Southwell agrees with this, stating that if it exists at all it is regarded as a hidden activity, which is just concerned with appearance (Southwell, 2001 p108).

3.1.3 Not much to go on

Although Margolin suggested that little has been written on design in developing countries (Margolin, 1989 p285), a more accurate statement would be that writing on the role of design in a development context has taken place on the periphery of the design discourse. As Misha Black stated, design has a long history of engagement with social justice but at a particular point, design activity became intrinsically linked with increased sales. As evidence of this he pointed to the late 1920s in America (Black, 1975 p43). Since then the idea of design performing other functions for the benefit of mankind would seem to have been marginalised. However, since the Second World War, there have been a number of authors addressing this subject area from a range of positions and in the early years of the 21st Century, this activity seems to be on the increase.

26 “India’s traditional knowledge was highly organised and meticulously articulated. Even in the arts there were extremely detailed canons and highly sophisticated structured treatises. Ancient India had Shilpa Shastra for sculpture, Natya Shastra for dance, Sangeetha Shastra for music, Vishnu Dharmottara for art and Vaasgtu Shastra for architecture. Since Indian culture didn’t distinguish between applied art and fine art there was no separate treatise on design” (Balaram, 2005 p11).
3.1.4 The first American initiative

According to Er and Langrish, "The first international approach to industrial design in developing countries was a US government initiative" (Er and Langrish, 1992 p2). In 1955, the Hoover commission approved a plan to survey craft-based activities in developing countries. The initiative was administered by the International Cooperation Administration (ICA), and as industrial design was part of the remit of the aid programme, the ICA approached a number of American design firms to involve them in the programme. The purpose of the programme was to survey craft-based activities in specific countries with the aim of recommending initiatives that could improve the quality and competitiveness of such products on the open market, especially in the United States. This activity could be seen as having little or no relevance to the traditional role of industrial design. However, it demonstrated an interest in the activity of artisans and their importance to the economy both at a national and international level and chimes with the focus of this research emphasising the importance of the crafts in development.

Five design firms were selected to visit nineteen developing countries. In the light of subsequent activity, particularly in India, it is interesting to note that at least two of these designers made suggestions that design training facilities be set up. However, this did not fit with the overall plan of the initiative and was not followed up. Peter Müller-Munk made this suggestion for India in 1955 (one of his allocated countries), and may have influenced the invitation of Charles Eames three years later by the Indian Government (Pulos, 1988 p241).

It is clear that this initiative was part of a wider picture of development activities initiated by the United States of America at this time and was a parallel activity to the Marshal plan, which provided aid for the reconstruction of Europe (Er and Langrish, 1992 p2). Sparke comments that during this period “…design played a crucial although usually silent role”, which may account for the lack of profile of design in development activity today (Sparke, 1989 p144). As Pulos states, the initiatives to rebuild markets and trade relationships with the countries involved in the Second World War was so successful that within ten years of the end of the war, three of Americas former enemies (Germany, Japan and Italy) were exporting to the United States (Pulos, 1988 p190).

American finance was also instrumental in the establishment of the Hochschule für Gestaltung in Ulm (HfG Ulm) West Germany. Designers from the USA collaborated with
the school as students and faculty members until its closure in 1968 (Pulos, 1988 p191). Even though the school was only open for fifteen years, its influence can still be seen in the design and teaching of design programmes across the world. In his historical volume on design, Bürdek emphasises how significant this short lived influence was, as well as recognising the significance of the earlier Bauhaus on the Hochschule (Bürdek, 2005 p27). In a number of papers, Soumitri, Er, Ranjan and Fernandez, discuss this influence on the design education systems in Latin America, Turkey and India (Er et al., 2003, Fernandez, 2006, Soumitri, 2002, Ranjan, 2005), in her book ‘Introduction to Design Culture in the Twentieth Century’ Sparke states that in the 1930s in the context of design being a factor in addressing social need, Buckminster Fuller, a key figure in this discourse, was “…adamant in his dismissal of the Bauhaus and its influence which he saw as involving itself only superficially with the question of design” and asserting that the Bauhaus “had failed to address the economic structures behind production” (Sparke, 1989 p193).

Although there is no evidence to suggest that this dismissal by Fuller affected the adoption of teaching models proposed by the Hochshule in the countries mentioned above, over seventy year later similar arguments are raised by Indian design academics (Soumitri, 2002 p10, Balaram, 1998 p44). These arguments centre on the importance of design training being appropriate to the context in which it is being used. This theme is discussed in detail later in the thesis (3.2.6).

3.1.5 Design education in India

The story of design in India is long and complex. India has a crafts sector, larger and more varied than many other countries, whose history has been documented for many hundreds of years. However, the challenges facing India and its government in the years following independence in 1947 were very complex indeed. As mentioned earlier, design came to prominence as a factor in economic development during this period. At a similar time, the swadeshi movement had gained greater prominence. This initiative to substitute imported products with indigenous production was intrinsically linked to the Indian independence movement (Chatterjee, 1990 p180).

27 Swadeshi: A term used to describe the production of goods locally for use and consumption locally. It was used as a key strategy in the Indian independence struggle as a means of combating the use of imported goods. Perhaps the most famous example of this would be the production of Kadhi or homespun as an alternative for imported machine-made cloth.
The two main influences on economic policy in India following independence in 1947 were the Gandhian focus on the village as a building block for economic and social development, and the technology-led economic development model via industrialisation as applied in Western countries. Jawahral Nehru, the Prime Minister, was a keen proponent of the latter and this approach was eventually adopted (Chatterjee, 2005 p6). However, in India there is no single model that could address the needs of a very diverse population. With the majority of the population living in a rural setting, many of whom rely on traditional craft as their source of income,28 the push for industrialisation could only in reality affect the urban populations (Balaram, 2005 p13, Chatterjee, 2005 p7). This reflects the tensions of development practice in many development contexts. Nadkarni expressed these same tensions in a paper to the Design for Need conference almost thirty years after independence (Nadkarni, 1976 p25).

In 1957, ten years after independence, Jawaharal Nehru, the then Prime Minister of India, expressed concern about “the impact of western design and technology on Indian culture” (Neuhart et al., 1989 p232). It appears that the Indian Government had begun to recognise the fact that economic development solely focussed on technology after a Western model, which left out almost three quarters of the population. In 1958, the Indian Government invited Charles and Ray Eames to visit India on a fact-finding mission, with the aim of making recommendations for the role of design and specifically design education in the economic development of this newly independent nation. This invitation was clearly focussed towards the ‘small industries’ which in Indian parlance often refers to as small-scale crafts enterprises. The formal invitation from the Indian Government to the Eames was for them to produce “… recommendations on a programme of training in design that would serve as an aid to the small industries and that would resist the present rapid deterioration in design and the quality of consumer goods” (Eames, 1991 p63).

The Eames were a married couple who were both established designers running a design office in California. Their design outputs were varied, from chairs and architecture that have now become design icons, to film and exhibition design. Before the invitation, they already had some links with India through their involvement in the exhibition and accompanying film ‘The Textiles and Ornamental Art of India’, which took place at the Museum of Modern Art in 1955. The Eames were recommended for the role by Pupul

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28 According to Balaram writing in 2005, at that time there were 23 million crafts persons practising in India and Chatterjee in the same year suggests that the vast majority of India’s one billion citizens live in rural settings and urban slums (Balaram, 2005 p13; Chattergerjee, 2005 p7)
Jayakar, the chairperson of the All India Handicrafts Board and one of the Indian Government representatives at the exhibition mentioned above (Neuhart et al., 1989 p232).

A report now known as ‘The Eames Report’ detailing the findings of their visit was produced by the Eames as a result of their three-month tour of India funded by the Ford Foundation (Jayakar, 1979 p5). One of the main recommendations of the Eames report was for a programme of design education to be established. As a direct result, The National Institute of Design (NID) was set up (Eames, 1991 p74). Corlett suggests that the motivation behind this initiative was a government policy to reduce imports and encourage the development of national industry (Corlett, 1997 p4). The investment in design education signalled the Government’s belief in design as a significant factor in the development of industry and therefore in the development of the national economy.

At the Design and Development in South and South East Asia conference in 1989, three Indian academics discussed the influence of these events. Munshi, who discussed the development of design in India, suggested that design was seen as a factor in economic development (Munshi, 1990 p38). Singanpali Balaram, a member of faculty at NID, suggested that the establishment of the NID by the Indian Government was an act of faith, stating that like many governments they were not quite sure what exactly design was or how it would help their economy, but that they had faith in its usefulness (1990 p49).

Chatterjee, an Indian design theorist and former executive director of NID, over 30 years after the Eames report, concluded:

> Design has emerged as a high profile activity, indispensable to quality in sophisticated sectors of manufacture and communication. Yet the original inspiration for bringing design to this land – to lift the quality of life for millions living at the margins of existence in villages and urban slums – remains virtually untouched (1990 p179).

Chatterjee clearly saw that there was a role for design in addressing issues of poverty and the development of village crafts. He describes the handloom and village crafts resurgence inspired by Gandhi as “the greatest design story of modern India” (Chatterjee, 1990 p180). The motivation behind this initiative is based on sound principles of rural development, “I swear by this form of Swadeshi because through it I can provide work to the semi starved and semi employed women of India” (Gandhi, 1927 p456).

G.V. Soumitri expressed other reservations about the role of the Eames report. In his paper on The Project of Industrial Design in India, he suggested that the Eames report took no account of the existing design training centres in India and that the resultant institution
(NID) was staffed almost exclusively by foreign trained designers with little or no roots in the country (Soumitri, 2002 p9). Western design education was thus transplanted into India; there may have been confusion and miscommunication during this process as suggested by Soumitri and Jayakar, with Eames concentrating more on craft and design to address poverty, quoting from the Bhagvad-gita\textsuperscript{29} and the Government looking for a modern design institute to help expand industry. Jayakar states that following the meeting to present Eames’ proposals, she and others had to convince the Minister and the Ford Foundation that there was some technological foundation and concrete proposals behind the philosophy (Jayakar, 1979 p3). Regardless of these beginnings, as Er states, the resultant design school, The National Institute of Design (NID) is one of the oldest and most respected design schools in a development context (Er et al., 2003 p17) and has provided the foundation for the development of design education across the subcontinent.

\textbf{3.1.6 1960s counter culture}

In the late 50s and early 60s, at least in western capitalist countries, there was a reaction against the growth of materialist consumption. During this period, speakers at ‘The International Design Conference’ in Aspen (which began in 1951) hosted a number of discussions which progressed the debate on the role of socially responsible design (Banham, 1974 p2). Amongst others, Buckminster Fuller contributed to the development of this agenda. According to Gorman, Fuller had begun to develop his design ideas as early as the 1920s, focussed on the sustainable use of resources. He challenged the design status quo with proposals for prefabricated tower blocks and the aerodynamic ‘Dymaxion Car’ (Gorman, 2003 p186).

Perhaps one of his most well-known contributions to the debate was the book ‘Operating Manual for Spaceship Earth’ published in 1969 (Fuller, RB 1969), in which he stressed the responsible use of the world’s non-renewable resources. According to Margolin, these initial ideas on sustainability, although displaying attributes that were far ahead of their time, were not adopted by industry (Margolin, 1998 p269). In contrast, Fuller’s geodesic domes developed for the US military were adopted and are known across the world. In the early 1960s, he became a university professor and was involved in the launch of the World Design Decade (Margolin, 1989 p84).

\textsuperscript{29} A Hindu religious text: The Bhagavad-gita is also known as Gitopanishad. It is a key text in Vedic knowledge and one of the most important Upanishads in Vedic literature. For more information see http://www.bhagavad-gita.us/articles/660/1/Introduction-to-Bhagavad-Gita/ retrieved 10.4.12
In the late 1950s, Vance Packard, a journalist, author and social critic, attacked excessive consumption in two books ‘The Hidden Persuaders’ and ‘The Waste Makers’ (Packard, 1957, Packard, 1960). In his paper mapping design literature, Margolin states that Packard’s “…polemical tracts were followed by Ralf Nader’s exposé of deficiencies in American automobile design” (Margolin, 1989 p268). Gorman describes Nader as a lawyer, consumer advocate and environmentalist, who played a key role in the formation of safety legislation in the automobile industry following the publication of the book ‘Unsafe at Any Speed’ (Nader, 1965). Nader’s title for chapter six ‘It’s the curve that counts’, encapsulates his view that the sole concerns of car designers at that time were stylistic changes and the ‘sales curve’ (Gorman, 2003 p181).

Margolin observed that in the 1960s these critiques resulted in many young people rejecting the previous generation’s dreams of material prosperity. He suggested that Buckminster Fuller was the “model designer” of this movement (Margolin, 1989 p269). Whiteley concurred with this opinion, stating that Fuller’s early ideas were being re-discovered by young designers, who proposed a world revolution of design: “Design, Fuller believed, could solve the world’s problems if it dealt with the real issues and concerns rather than the phoney desires dreamt up by capitalist manufacturers and their lackeys….industrial designers” (Whiteley, 1993 p95).

Margolin also suggested that Fuller inspired the creation of the ‘Whole Earth Catalogue’ by Stewart Brand. A publication that, via the description of a collection of tools for living, attempted to foster a “multifaceted alternative lifestyle” (Margolin, 1989 p269). Buckminster Fuller was also a friend of Victor Papanek and wrote an enthusiastic introduction to the first edition of ‘Design for the Real World’ (Papanek, 1972 pvii).

In the field of graphic design, similar voices of discontent were being heard. In 1964 Ken Garland published his ‘First Things First’ manifesto, challenging the graphic design profession to also work on projects “worth their skill” as opposed to contributing to the “high pitched scream of consumer selling”. The manifesto was signed by twenty-two visual communicators (Garland, 1964). According to Poyner, Garland, a graphic designer with strong associations with political organisations, wrote the original draft of the statement during a meeting of the Society of Industrial Artists and Designers (SIAD) in November 1963. At the end of the meeting, he requested the opportunity to read the statement, which received an enthusiastic response (Poyner, 2000 p2).
3.1.7 Victor Papanek

“There are professions more harmful than design…but only a very few”. This quotation is taken from the preface to the first edition of ‘Design for the Real World’ by Victor Papanek (1972 pxxi). This statement encapsulates Papanek’s view of the design profession. According to Richardson, many in the profession welcomed his polemical views, but many more rejected them as unrealistic and anti commercial (Richardson, 1998 p1). Victor Papanek was born in Austria in 1927. He grew up in England and studied design and architecture at the Cooper Union in New York with postgraduate work at the Massachusetts Institute of Technology (MIT). Between 1962 and 1980, he worked on a consultancy basis as a technical expert for the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and the World Health Organisation (WHO), along with various appointments in design institutions across the US and in Europe (Gorman, 2003 p188, Pumhösl, 1999 p31, ICIS, 2005 p1).

In 1963, he began writing the work for which he is best known. It was first published in 1970 in Sweden under the title ‘Mållion och Millionen’ which translates as ‘Millions and Millions’, and was eventually published in America in 1971 under the title of ‘Design for the Real World’ after a number of publishers had rejected it (Madge, 1993 p153). Madge describes Papanek’s writing as being “…in the tradition of Packard” and extending the critique to an attack on industrial design. She makes the statement that “Victor Papanek is the most well known designer working in this area and…”Design for the Real World” is the most famous, not to say infamous book on the subject ” (Madge, 1993 p153). This ‘infamous book’ was, however, translated into twenty-three languages and is arguably one of the most widely read books on design. In the preface to the first edition, Papanek states that his reason for writing the book was that it was the kind of book he would like to read (Papanek, 1972 pxxiii ).

When it was published in English in 1971, many of his ideas for design in developing countries were based around the intervention of designers from developed countries. After considerable criticism from various camps, he changed his position in the revised edition published in 1985, recognising that an interventionist approach by designers from developed countries had significant drawbacks. He acknowledged that his earlier writing had displayed a naive and patronising view of what he called the Third World and realised that he and others had failed to appreciate how much they could learn in places where they had set out to teach (Papanek, 1985 piv). It is interesting to note that Papanek must have
already changed his position by 1981, as he presented a paper at the Design Policy conference, which advocated a non-interventionist stance. In this paper, he describes the work of one of his postgraduate students, Christine Lock. She conducted a project on the principle of ‘helping by minimal intervention’. Instead of designing a new grain mill for use in developing countries, she created a book, which collected and illustrated a large number of primitive grinding mills, both historical and contemporary, from around the world. The devices were described through simple sketches and exploded views. Hundreds of these books were then printed and sent to people in developing countries. Papanek reported that ten years later about eighty people had contacted him describing their own design of hand grinders influenced by Lock’s work, tailored to specific crops and environments (Papanek, 1982 p45). This position of minimal intervention is also supported by personal correspondence in 1993 between Papanek and Madge; “I feel very strongly that designers and architects who are living in the third world are by now able to successfully do their own design for their own needs…” (Madge, 1993 p154). In a paper in 1986, he again acknowledged the “naïve and sometimes simplistic view of helping the poor” displayed in his early writing but states that “Whatever the faults… it did awaken a broad interest in the design profession in doing responsible socially accountable design” (Papanek, 1986 p45).

During his period as a technical expert for UNESCO, probably the most well known piece of design was what has become known as the ‘Tin Can Radio’. Made out of a food can containing fuel and a wick, it worked by a flame heating a thermo couple, which provided enough electricity to power a single band receiver. This product was developed at the suggestion of the US Army, although when it was presented to them in prototype form, according to Papanek they expressed concern, saying “...what if a communist gets to the microphone?” (Papanek, 1972 p164). After the design was developed further it was discussed at a presentation at the HfG Ulm. According to Pumhösl, the professors expressed their annoyance at the “plainness of the device” by marching out of the auditorium en masse. Pumhösl goes on to cite an article in ID magazine, which also criticised the device at the time, commenting that “…the streets of Saigon are crowded with cyclists whose prized possession is one of the ‘jewellery’-like transistor radios that Papanek decries. Somehow one cannot imagine them readily trading up to a dung powered juice can” (Pumhösl, 1999 p34).
In his defence, Papanek stated that the need was transitory. It was designed to transmit health information to people who had no previous access to such information. He freely admits it had ‘no style’ but was purely utilitarian. In a paper on design in developing countries, he discusses the complex problems of projects of this sort describing them as an example of ‘Catch 22’ (Papanek, 1986 p45). In 1996, the Freeplay radio company addressed this same need by developing a range of ‘wind-up’ products based on the invention of a clockwork radio by Trevor Baylis. The first models developed were more successful in western markets, and more recently, the company developed the ‘Lifeline Radio’ as a specific response to the originally identified need of providing radios for rural communities in developing countries.

In 1977, Papanek followed ‘Design for the Real World’ with a book entitled ‘How Things Don’t Work’ co-authored with James Hennessey, an American industrial design educator. Their aim was to draw attention to the lack of functionality in many of the products that surround us, posing the fundamental question as to whether some products are needed at all. They also proposed the idea of shared products e.g. a lawnmower owned by a group of houses (p23). They concluded with the suggestion that user interaction with the maintenance and even the construction of products would have a significant effect on their longevity of use, suggesting that people would be far less likely to throw away something that they have had a part in making (Papanek, 1977 p101).

‘Design for Human Scale’ continued the debate begun in ‘Design for the Real World,’ but with far more emphasis on the needs of people as users and including many examples of low-tech solutions to real needs. In the introduction to the book Papanek states,

Design and Architecture have all too often ignored people’s real needs. Mass production has turned many manufacturers into latter-day sorcerers’ apprentices - unaware of the way a small misjudgement, multiplied a million times can tatter social coherence (Papanek, 1983a p5).

In 1983, he published a proposal for an international design school for developing countries, in the journal ‘Design Studies’. The paper was originally written at the request of an International Council of Societies of Industrial Design (ICSID) working group on developing countries and presented to the ICSID congress in Moscow in 1975. According

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31 For more information see: www.freeplayenergy.com retrieved 10.4.12
to Papanek, ICSID never acted on the proposal (Papanek, 1983b p64). In 1984, he reiterated his emphasis of the importance of design education in development contexts with an article in the journal ‘Innovation’. In it, he states that his motivation for working in this context is his belief that in the countries of the developed world there is little room to operate. However, in what he called the ‘Third World’, “Truly innovative design is both desperately needed and more easily possible”. He went on to state a principle, which seems to have characterised much of his work “Nothing big works - ever” (Papanek, 1984 p27). In 1985, he revised ‘Design for the Real World’ and in the late 1980s and 1990s, he continued to push the boundaries of the subject with articles on the ethical and spiritual aspect of design.

He continued his challenge of the professional status of designers with an article in 1991 reiterating what he had stated in the first chapter of his first book ‘Design for the Real World’, “all men are designers” (Papanek, 1972 p3). The article described the design practices of a group of Inuit people with whom he had lived for a short period; in the title of the article and in a chapter of his last book, he calls them “The Best Designers in the World” (Papanek, 1991 p11). His last major work ‘The Green Imperative’ dealt predominantly with the issue of ecological design, although he also again explored indigenous design ability (Papanek, 1995).

Papanek died in 1998. In a tribute article, Richardson concludes by saying “Papanek’s passing should serve as a reminder to Industrial designers - and designers of all stripes - that we are still doing too little. The opportunity for us to lead has never been greater” (Richardson, 1998 p1).

In contrast to this, Penny Sparke in ‘An Introduction to Design and Culture in the Twentieth Century’ (Sparke, 1989) accused him of “…skilfully demolishing all the highly regarded design movements of this century one by one…in a tone that was rhetorical and moralistic” (p195).

She went on to say that although there was a noticeable movement which explored alternative roles for design of which Papanek had become an icon “…for the most part however no real threat was levelled at the role of the designer as the handmaiden to industry” (p196). In her conclusion to this section of the book, she does suggest that although, “…there are few indications that many of Papanek’s radical proposals will ever
be realised”, reforming idealism has been an important and constant theme in the story of modern design since William Morris “…defining the designer as potentially a free individual, and design as a concept which is capable of improving rather than impairing the quality of contemporary everyday life” (Sparke, 1989 p202).

In a second publication in 1991, Sparke again comments on Papanek’s idealistic stance. She does however, concede that his book ‘Design for the Real World’ “…filled a gap in design theory, moving beyond a concern with production and form towards a view of design in use” (Sparke, 1991 p237).

These quotations from these two publications by Sparke indicate that at the time of writing, the view, particularly from design historians’ perspective, was that the period of interest in design for social need which began in the 1930s with Buckminster Fuller and was continued with writers such as Nader, Vance Packard and latterly by Papanek, was firmly relegated to the periphery of the design discourse and activity by the choices and political imperatives of the period since the 1980s.

3.1.8 Small is Beautiful

Intermediate Technology (IT) has played a significant role in meeting local need in developing countries. The concept was originally developed by E.F. Schumacher who was born in Germany in 1911. Schumacher trained as an economist at Oxford and at the age of twenty-two, he lectured at Colombia University, USA (Schumacher, 1997 p130).

Following a period in England during the Second World War, where his German origins resulted in him working for some time as a farm labourer (which he later said had influenced his involvement in sustainable agriculture), he was appointed as an advisor to the British Control Commission in Germany from 1946-50 and afterwards became the Economic Advisor to the British Coal Board (Schumacher, 1997 p13). In 1955, during a UN consultancy trip to Burma “He began to see that the economics of materialism … had its limitations.” (Smillie, 2000 p87). As a result of this trip, he wrote a paper ‘Buddhist Economics’, which sought to challenge the accepted norms of economic thought (Schumacher, 1997 p8). According to his wife, Diana Schumacher, writing in the introduction to ‘This I Believe’ (a compilation of some of his articles), “Burma brought together many of the separate strands of his life particularly relating to economic development in the Third World” (Schumacher, 1997 p13).
In 1961, he was involved in a series of seminars in India and was exposed to some of the country’s foremost ‘Gandhian’ thinkers. According to Smillie, it was as a result of this trip that he began to formulate his initial ideas on Intermediate Technology (Smillie, 2000 p87). Over the next three years, he developed his ideas, returning to India at the request of the government in 1962. In 1964 he presented a paper in Cambridge entitled ‘Industrialisation through Intermediate Technology’ (Schumacher, 1997 p130) which, according to Smillie “…was widely published and re-published, and at last he began to develop a following of people who saw the relevance of his message” (Smillie, 2000 p88).

In May 1965, he called a meeting at the Overseas Development Institute in London. At the meeting, the decision was taken to move from thinking to action. A group was formed called the Schumacher Group and in the following year they formed a non-profit organisation called the Intermediate Technology Development Group. In 1973, he wrote ‘Small is Beautiful’ which according to Smillie is the book for which he is best remembered (Smillie, 2000 p86). By some, he was “hailed as a guru of materialistic dissent” and “as the true prophet of sustainable development” (Schumacher, 1997 p16).

Smillie suggests that the mainstream development and academic communities were “quick to find fault” with the IT movement, and launched objections to it on “technical, economic and cultural, social and intellectual grounds”, and describes these reactions as “a reverse Luddism” (Smillie, 2000 p96).

In 1974, Schumacher was awarded the CBE and in 1977, he died at the age of sixty-six. Although Schumacher’s theories rarely touched on the field of design, as the originator of the IT movement much of his writing contributes to a theoretical framework, which informs a grass roots participatory model of design interventions in a development context.

3.1.9 Design for Need

In 1974, the Design and Industry Association (DIA) hosted a conference in Dubrovnik, to discover what designers and manufacturers of the developed world could offer to developing countries. The conference was described in an article in Design magazine entitled ‘Third World Shopping List.’ The article discussed a large number of designs, produced for use in developing countries. One of the products mentioned in the article, the ‘foot sickle’, was cited as an example of good practice. This project is an early example of a design intervention in a development context, which with the benefit of hindsight may not be approached in the same way today. This device, which proposed that a sickle blade should be fitted to a shoe to improve the speed of crop harvesting, was developed by
Indian designers at the National Institute of Design, in India. In the article, it is claimed that the product improved the speed of harvesting and had won the interest of local people. It is also claimed that the product cements a relationship between two traditional manufacturing groups, the Chamars (shoemakers) and the Banjaras (blacksmiths) (Semiti, 1976 p37). The device designed by Abir Mullick and Arvind Merchant was also presented at the ‘Design for Need’ exhibition and conference (Bicknell and McQuiston, 1976 p150). It is beyond the scope of this review to delve any deeper into the practicalities of such a relationship between crafts groups given the caste system in India. However, Ballyn, a western designer who discussed the project with NID staff soon after it was developed, claims that the sickle shoe did not prove to be successful, not because it failed to perform in harvesting crops but because culturally Indians believe that the crops, which sustain life, should be treated with respect, and to propose a new system of harvesting which involved ‘kicking’ the crops was seen as disrespectful (J Ballyn, personal communication 19th April 2001).

In 1974, a reader was produced to accompany an Open University course ‘Man Made Futures: Design and Technology.’ The introduction stated, “The starting point for this course is that the proliferation of problems - and opportunities - arising from modern technology suggests that we must more carefully design and more carefully choose the future directions of technological change.” (p2). The relevance of this publication to the field is both general and specific. In general, it supports the view of an increase in the visibility of issues of social responsibility at this point in history. Specifically, there are a number of contributions which relate to the role of design in a development context. Papanek writes on “Areas of Attack for Responsible Design”, listing design for underdeveloped areas as a key focus (p311). Murray Bookchin (p320), Robin Clark (p333) and Ivan Illich (p340) all write on intermediate technology and the overall tenor of the book strikes a note of caution against being carried along unquestionably by technological progress (Cross et al., 1974).

In 1975, Misha Black wrote an article in Design Magazine in which he announced that a number of bodies were collaborating together to host a seminar and exhibition (later titled Design for Need).

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32 In 1975 Sir Misha Black OBE RDI Hon Dr RCD Hon Tech was the president of both the Design and Industries Association (DIA) and The International Council of Societies of Industrial Design (ICSID).
He described it as a …platform for planning a more direct and beneficial involvement of industrial designers in meeting the needs of the majority of the world’s population whose poverty and hunger shame the profligate minority”. He goes on to say that “Amidst the thunder of what Papanek might call the ‘new revisionism’ in design one might well question whether any justification remains in the design function as it was visualised even 10 years ago (Black, 1975 p42).

These strong statements reflected a strand of design thinking in western countries that was in favour of socially responsible design; the high energy displayed in some places at the end of the 1970s seems to have gone out of the public arena when commercially driven considerations came to the fore in the 1980s.

In 1976, the symposium on the social contribution of design entitled ‘Design for Need’ was arranged and hosted by the Royal College of Art (RCA). According to Frank Height, professor of Industrial Design at the RCA, the symposium was arranged as the result of a synthesis of disquiet from many professional and student engineers and designers about the lack of opportunities to use their talents in ways that were socially useful (Bicknell and McQuiston, 1976 p4). The aim of the conference is probably best summed up in the closing remarks of Misha Black who was the joint chair of the organising committee and reputed by some to have had the original idea for the symposium:33

We have two things to offer the emergent world: our technology - a power for good as well as evil - and the frail but real advantages of democracy. But if the rest of the world is to learn from us, we must prove ourselves worthy of the role of teacher. This is not a task for the weak - for those who would opt out of society. It is simultaneously a political, economic and social task which needs a toughness equal to that of those who care only for the satisfying of their own gluttony (Bicknell and McQuiston, 1976 pvi ).

Papers representing a broad spectrum of thought on the social contribution of design were presented at the conference, but the following papers referred specifically to design in developing countries. Sudhakar Nadkarni, Professor of Industrial Design at the Industrial Design Centre, at the Indian Institute of Technology, Bombay, presented an Indian perspective with echoes of Gandhian philosophy, emphasising the need to concentrate resources on developing the village economy. He proposed that designers who want to be of benefit to these rural economies should become part of the community. The primary role of this activity would be to create jobs; as a means of achieving this, he proposed that designers should train local people “The education-cum-training base should be as self

33 See note 82 in Madge (Madge, 1993 p165).
reliant as possible by training local people who will subsequently train others” (Nadkarni, 1976 p25). This suggestion that recent trainees should become trainers is an early indication of the ‘training-trainers’ strategy of training intervention which is now common in development practice (3.2.5).

Mike Cooley reported on an initiative proposed in the early 1970s in response to the government’s reorganisation of the British aerospace industry, specifically the Lucas Aerospace company. The trade unions responded with a joint initiative called the Lucas Plan and Mike Cooley was prominent in the combined shop stewards’ committee, which proposed the plan. The committee proposed an alternative plan for reorganisation in which more jobs could be saved if the company (Lucas Aerospace) moved into the production of socially useful products. In the paper, Cooley explains the rationale behind the initiative; “…we saw that when society doesn’t want the products that you make, the morale of the workforce making those items very quickly declines. We therefore evolved the idea of a campaign for the right to work on socially useful products” (Cooley, 1976 p96).

Whiteley explains the wider influence of the plan; “When the plan was published in 1976 it was widely acclaimed, not only in Britain but also in the United States and Europe…Both the scale of the plan and the type of industry from which it emerged, meant that it exerted a wide influence” (Whiteley, 1993 p107).

The plan was rejected, not just by the management of Lucas Aerospace, but also by more conservative trade unions, academics and the majority of the Labour Government. Although the plan did not achieve its aims, its wider effects have been significant and it is cited twenty years later as the most well known example of industrial interventions designed to promote sustainability (Pepper, 1993 p238-9).

In a radio talk about the Design for Need symposium, Peter Lloyd-Jones suggested that the concept of design for need seems to encompass a number of areas of design, such as universal design, design for disability and sustainable design. The criteria and urgency of need would be defined differently in every case, but in each of these areas, the concept of ‘need’ would have a high priority in the design process. He also acknowledged the problems surrounding the concept of ‘need’ by exploring the ideology, politics and philosophy behind the concept. He noted the themes of discussion at the conference from both theorists and practitioners and summarised with a message, which he said, was a recurrent theme of the symposium “Go and live with the people. Work with them - and
then see what you can do to help. If you try to help from outside you are unlikely to succeed and may inadvertently do more harm than good.” (p92).

He concluded the talk by quoting Victor Papanek (1983a p31), suggesting that designers alone were unable to address the task “Design is too important to be left to the designers”. Instead, he suggested a multi-disciplinary conversation, which would enable designers to contribute their strengths (Lloyd-Jones, 1976 p93).

At the same conference Gui Bonsiepe presented a paper entitled ‘Precariousness and Ambiguity’. In the conclusion to the paper, he made the statement

My Summary based on eight years of continuous work in peripheral countries: ‘Design for dependent countries’ should read ‘Design in dependent countries’ or ‘Design by dependent countries’. The centre does not possess the universal magic formulae of industrial design which have to be propagated to the inhabitants of the periphery whom the intelligence agencies’ ideologically conceives as…[the]… underdeveloped… (Bonsiepe, 1973 p18).

3.1.10 Gui Bonsiepe

Gui Bonsiepe remains one of the key figures in the field of design in developing countries at present. Madge states that he is the only other designer apart from Papanek to have been particularly concerned with the social and environmental implications of design activity (Madge, 1993 p154). Er and Langrish credit him with being “one of the first who systematically studied industrial design in the context of development” (Er and Langrish, 1992 p3).

Papanek suggested, when discussing the influence of design in a development context, that “Possibly the most direct work with the people was done by Gui Bonsiepe”. He went on to describe his work as “… extremely important and pioneering work”(Papanek, 1986 p45). Bonsiepe was a student at the HfG Ulm studying under Tomás Maldonado and after his studies, he returned to be a tutor. He taught at Ulm until the school was closed in 1968. He then went to Chile to work on a technical assistance programme for the Allende Government until it fell in 1974 (in a coup d’état). This programme initiated by the socialist government was, according to Bonsiepe, an excellent example of design engaging with a socio-political programme, which ended with the change in government (Fathers, 2003 p46). This project and the wide range of products manufactured is described in an article by Capdevila, a design graduate from the Royal College of Art who worked with Bonsiepe in Chile (1976 p40).
Bonsiepe stayed in Latin America for a number of years working in Brazil and Argentina. Newby, in an article about Bonsiepe in Design Magazine, stated that in reference to these years he described himself as a ‘Parachutist from Ulm’ (Newby, 1976 p41), although in an interview published in Design Issues in 2003, he discounts the suggestion as incorrect and being biased against his ‘Ulmian’ approaches (Fathers, 2003 p47). The paper he produced for the ‘Design for Need’ symposium was the result of eight years experience of working as a western designer in a development context; it was also his first article on the subject in English (Er and Langrish, 1992 p3). Commenting on the conference, Newby suggested that this fresh experience distinguished Bonsiepe’s contributions from the surrounding academic discussion (Newby, 1976 p40).

Er and Langrish and Madge stated that despite Bonsiepe’s involvement in the area since 1968, he was still relatively unknown in design circles and has remained marginal in the design literature. The reasons given were “…because the subject itself did not attract any interest within a design world dominated by theoretical underdevelopment and self-centred design discourse” (Er and Langrish, 1992 p4), and “…because the issue of design in developing countries has increasingly been seen as a political rather than design issue and associated with the political left” (Madge, 1993 p155).

Madge, quoting her correspondence with Bonsiepe in 1993, stated that he saw the broader movement of socially responsible design in the 1970s as having made a valuable contribution but having had limited effect:

I consider it a merit of the representatives of the appropriate technology movements to have asked some uneasy questions about industrialisation and its effect on the Third World; furthermore, of having shifted attention to the rural (poor) population …in the Seventies there still was the hope that a different social organisation would give rise to different products and a different mode of consumption. This hope has today been shattered (Madge, 1993 p155).

I interviewed Bonsiepe in 2002 as part of the programme of a design history conference. The interview was reported in an article in Design Issues (Fathers, 2003 p44) (see Appendix 8, A8.1). During the interview, Bonsiepe explained that although he is an optimist by nature, in the context of globalisation and international debt he had little hope of returning to the type of development characterised in the quotation above. Bonsiepe’s further views as expressed in the interview are discussed in section 3.3.3-7.
3.1.11 Interest from the United Nations and the International Council of Societies of Industrial Design

During the 1960s and 1970s organisations such as the United Nations (UN) became interested in design as a tool in the development process. In 1970, the United Nations Industrial Development Organisation (UNIDO) hosted a conference entitled ‘The Development of Engineering Design Capabilities in Developing Countries.’ One of the main recommendations from the conference was to open a series of design centres based in developing countries to promote the practice of industrial and engineering design (UNIDO, 1972 p38). When this report was written, the National Institute of Design (NID) in India had been established for ten years, but it is not mentioned in the section reporting on existing capabilities in India. It is also worthy of note that the names of the participants at this meeting have not appeared as participants or authors in any other publication discovered during the research to date. Although the majority of the authors and contributors were from the engineering design discipline, the report clearly embraced industrial design as a creative activity alongside engineering design in its definition of design.

In 1973, Gui Bonsiepe produced a document for UNIDO entitled ‘Development through Design.’ In this report, he listed a number of recommendations, one of which was: “Developing countries which want to use industrial design as a strategy for development need to assign highest priority to the training of local man-power resources in the areas of: design management, research and projects” (Bonsiepe, 1973 p13). According to Margolin, Bonsiepe stated that this paper was the basis for two further papers both published by UNIDO in 1973; Design for Industrialisation’ and ‘Industrial Design: basic guidelines for a policy for UNIDO’ (V Margolin, personal communication, 28th November 2005).

In the same year at the ICSID congress in Kyoto, according to Papanek, the organisation re-established ‘Working group 4: developing countries’ led by Paul Hogan of the Irish export board. This group met for approximately three years and a number of proposals were made. Papanek, a group member, wrote a proposal to establish a design school in developing countries (Papanek, 1983b p64) which was presented at the 1975 ICSID Congress in Moscow. One of the members of the group, Knut Yran, who was a director of the Philips Centre of Industrial Design, also established the ‘Philips Design Prize’ for
outstanding design from and for developing countries at the suggestion of the group (Papanek, 1986 p46). This award was first presented to NID in 1977/8.

In 1977, a memorandum of understanding was signed between ICSID and UNIDO “to accelerate jointly industrial design activities in developing countries in order to satisfy urgent needs”. From this accord, it is clear that both ISCID and UNIDO saw industrial design as an important tool in economic development (ICSID, 1979 p3). In the three years following this agreement, a number of collaborative activities took place between the two parties. In the same year, ICSID held its 10th International Congress in Dublin, where Ashoke Chatterjee presented a paper on ‘The Problems of Relevance for Design in Developing Societies’. As the then Executive Director of NID, he described some of the challenges faced during the first twenty years of NID. He closed the paper with an invitation to ICSID to use NID as a venue for future activities. It is therefore not surprising that two years later the ICSID UNIDO congress was held in Paldi Ahmedabad at NID (Chatterjee, 1979 p15). As a result of the memorandum of understanding, UNIDO and ICSID sponsored a number of missions to obtain overviews of design activity in developing countries.

One of these missions was undertaken by John Reid, a British designer and architect, best known for his work with the furniture maker Stag. The purpose of the mission was to report on the state of industrial design in India, Pakistan, Egypt and Turkey. In his conclusions, Reid argued that what was needed was design capability to train local designers. He recognised that creativity and skills already existed in the enterprises that he visited and concluded that, if visiting professionals were to be of any help, they should have a down-to-earth, practical and common sense approach to design problems and a true appreciation of people’s needs. He also advocated the need for ‘socially necessary design.’ He referred to architecture-based programmes based in Pakistan and suggested similar schemes for design. “Such schemes involve the marginalized population in the solution of their own problems, creating self respect, group work, independence and immediately improving living standards” (Reid, 1978 p228). As will be seen later in the thesis, the way these initiatives are described point towards the use of participatory development approaches for design interventions.

34 1977-8 the ICSID-Philips Award, the first international award for design in developing countries. For more information see http://www.nid.edu/aboutus_1971-1980.htm retrieved 10.4.12
In another such mission in the same year, Mary Mullin was invited to visit Mexico, Colombia, Brazil and Argentina. Mullin is currently the vice president of the Design and Industries Association and former vice president of ICSID and secretary general of the International Council of Graphic Design Associations and has played an influential role in the design industry for many years. The purpose of the mission was to report on the state of industrial design in each of these countries. The report was quite general in nature although some of the conclusions from the section dealing with Mexico are worth noting: “The promotion of design must begin by listing, through careful analysis, the real product needs of a country”. She went on to say:

…but only when the product is what people want to buy (and it can well be downright ugly in the eyes of the elite in international judges) will the designer earn his salary. Design must begin in small craft industries where the ‘dedicated’ craftsman is at hand. (It is interesting to see how Finland, basing its post-war efforts on building up a high standard design in the craft industries has become perhaps the leading exponent of well-designed products…) (Mullin, 1978 p22).

In January 1979, UNIDO and ICSID organised a joint meeting entitled ‘Design for Development’, which was hosted by NID in Ahmedabad. According to Er and Langrish, representatives were present from twenty developing countries and this meeting was the first on record to discuss the role of industrial design in development activity. It was also the first time that industrial design was recorded as being a factor in national economic development plans (Er and Langrish, 1992 p5).

Bonsiepe presented a paper at this meeting entitled ‘Industrial Design in Latin America’. In it, he describes the state of industrial design in this region and suggests measures required to optimise the effect of this activity in this socio-economic context (Bonsiepe, 1979b p4). At the close of this meeting, a declaration was proposed by the organisers; this was to become known as the ‘Ahmedabad Declaration on Industrial Design for Development’ (ICSID, 1979 p1). The declaration made a large number of recommendations and was written in line with the Lima Declaration of 1975 and the memorandum of understanding of 1977. This clearly placed the declaration in the context of industrial activity playing a central role in development.

35 In March 1975, the Second (UNIDO) General Conference adopted the Lima Declaration and Plan of Action on Industrial Development and Cooperation. The Conference agreed on measures in favour of the least developed, land locked and island developing countries to raise living standards. Other highlights included a resolution to encourage the creation, transfer and use of industrial technology for developing countries. The human aspects of industrial development are also stressed: http://72.14.205.104/custom?q=cachec:BQ1Gnlpf4H8J:www.unido.org/index.php%3Fid%3D750+The+lima+Declaration+1976andhl=enandct=clnkandcd=1andclient=google-coop-np retrieved 10.4.12
Chapter 3: Section 3.1 Learning from the Literature 3.1.11

The preamble to the declaration recognised that “…although design is a real need it is not yet a felt need” and notes that “…design methodology is … insufficiently used as an economic resource”. It also recognised the role of design in preserving cultural traditions.

It is, however, the declaration itself which makes the most interesting reading. There are four key phrases in the recommendations, summarised below:

The meeting for the Promotion of Industrial Design in Developing Countries convened by the United Nations Industrial Development Organisation… solemnly declares… [That]

…design can be a powerful force for the improvement of the quality of life in the developing world…

… designers must have a clear understanding of the values of their own societies…

That design in the developing world must be committed to a search for local answers to local needs, utilising indigenous skills, materials and traditions…

That designers from every part of the world must work to evolve a new value system which dissolves the disastrous divisions between the worlds of waste and want, preserves the identity of peoples and the priority areas of need for the vast majority of mankind (ICSID, 1979 p3).

The document also set out a ten point plan of action, which had a strong bias towards implementation via institutional means. However, thirty years later there seems to be little evidence of action by these two bodies on this declaration. This view is supported by Margolin, who felt that the declaration, if acted upon, could provide pointers to a less restricted view of design in a development context than that proposed by Papanek (Margolin, 2005b p17). The same view from an Indian perspective was expressed by MK Ranjan, a senior faculty member at NID, who suggested revisiting the declaration in the process of devising a still unrealised national design policy (Ranjan, 2004b p4).

Later in 1979, the eleventh congress of ICSID was held in Mexico City - the theme was Industrial Design and Human Development. The conference included a large number of papers from a broad spectrum of positions; of note was a paper by Gui Bonsiepe entitled ‘Between Marasm and Hope’. In this paper he explored the differences between industrial design in the core and the periphery “There is not one, and only one industrial design; there are these two industrial designs and they have very little in common.” He went on to say “It is sufficient to recall the food, housing, health and education shortage, suffered by a great part of the population of this planet - an emergency which industrial design as
Chapter 3: Section 3.1 Learning from the Literature 3.1.11

technological activity must help overcome by coming up with definite proposals.” He
concluded by saying “…in my opinion the crucial point for the design profession,
education and research in the periphery consists in the contribution to cultural and
technological liberation” (Bonsiepe, 1979a p50).

In 2005, a Design Education conference was hosted by NID. Following the conference an
‘Intent Statement for Design Education’ was released; this was taken up as the theme of a
conference in South Africa in 2007 hosted by the Design Education Forum for Southern
Africa (DEFSA) entitled ‘Flux: Design Education in a Changing World’. As part of the
conference publication materials the Ahmedabad statement of 2005 was described as the
second Ahmedabad declaration36. Although published by the same institution about similar
subjects, it is misleading to link this statement to the 1979 declaration because the 2005
statement is not of the same breadth or depth, dealing only with design education and
without specific reference to design as a factor in development activities. It should
therefore be regarded as a separate document.

Since the early 1970s, the two areas where ICSID can be said to have been active in a
development context and therefore engaging with the intent of the first Ahmedabad
declaration are the promotion of design institutions across the globe and the ‘Interdesign’
seminars. The promotion of design institutions in developing countries has largely been
facilitated by their educational strategic plans. The plan for 1999-2005, authored by Vesna
Popovic, addresses developing countries in point three under the title, ‘The Fostering of
Industrial Design Education in Developing Countries’. In an explanatory note, the author
suggests that: “The development of ID educational curriculums is emerging in e.g. Africa.
Although programmes are being developed based on western models, ICSID should be
aware of the needs and assist in the development of curriculums that are culturally sound”
(Popovic, 2001 p2). In addition, in 1999 a ‘World Directory of Design Education’ was
published by ICSID. Edited by Vesna Popovic, the purpose of this publication was to give
details of all the industrial design courses in the world. It was the major initiative of the
Education Portfolio for the year and documented courses from all countries, including
developing countries (Popovic, 1999).

The first ‘Interdesign’ seminar was organised and hosted by ICSID in Minsk, Russia in
1971. This event focussed on local design challenges in the form of street furniture and

food production. Since this first Interdesign event, they have been held on a regular basis in various locations across the globe. The foci of these seminars are wide ranging, from the Chilean wine industry to tourism in Ireland. A full record of every event is not available in the ICSID archives, although there have been two events in particular which have focussed on design challenges for developing countries. In 1985, the design of basic medical equipment for developing countries was addressed in collaboration with UNESCO (ICSID, 2006 p3) and in 2006 in South Africa, rural transport was addressed (Stairs, 2006 p81). The outcomes of these seminars are documented but evidence has not been identified in this research which reports on the longer term influence of these activities.

3.1.12 The end of an era and the influence of liberal capitalist economics.

According to Pauline Madge, the period between the late 1970s and the early 1980s would seem to mark the shift away from interest in the Design for Need agenda. In an historical review of this period, she argued that the Design for Need conference in 1976 was the high point of interest in the area of design in development (Madge, 1993 p158).

Around 1984, design and architecture in industrialised countries became more interested in Postmodernism, as exemplified by Ettore Sottsass and the international design group Memphis (Gorman, 2003 p204). In an historical review of design and culture in the twentieth century, Penny Sparke connects these two design movements under one chapter heading ‘anti design’. This connection belies the fact that in ethos these movements lie at opposite ends of the design spectrum in almost every respect (Sparke, 1989 p191). The Memphis movement, according to Gorman “challenged modernist dogmas about functionalism and rationalism” creating striking pieces of decorative art and furniture which were intended to be “flashy and faddish” (Gorman, 2003 p204). This design approach seemed to catch the spirit of the economic upturn at the time (often described as the ‘yuppie era’), emphasising fashion over substance, and was another indication of the movement of design for social need to the periphery of the design debate.

In January 1982, a seminar ‘Product Design and Market Success’ was held at 10, Downing Street. A number of prominent designers were invited to meet with Margaret Thatcher, the then Prime Minister (Madge, 1993 p159). In a recent lecture, Tim Coward, a designer/researcher, described the period as being very exciting “We thought the design industry had at last been recognised” (Coward, 2006). Roy and Wield, in their book ‘Product Design and Technological Innovation’ (Roy and Wield, 1986), suggest that the
‘design fraternity’ would point to these events as the beginning of a resurgence of UK design. This meeting was followed by a government-sponsored promotional campaign led by the Design Council called ‘Design for Profit’ and a £10m fund for free design consultancy for small to medium enterprises. These initiatives set the tone and prescribed a very specific role for design to play which seems to have occupied the main stage to the present day. Although Roy and Wield allow some room in this publication for contributions from the intermediate technology sector including a chapter by Mike Cooley, best known for his part in the Lucas plan, the main message of the book is to reinforce the point that design should now be taken seriously as a key contributor to economic growth (Roy and Wield, 1986).

It is important to note here that the idea of design for profit was not a new one in the early 1980s. In an article published in 1975, Misha Black suggested that in about 1929 “a new breed of designer appeared…they were Americans, their scenario was the relationship of design to profit…and proved that design could be used as an effective marketing weapon”. Black was not particularly complimentary of this movement, writing as he was at the height of, and as a prominent instigator of, the Design for Need movement, and the article points out the limitations of following the single agenda of profit (Black, 1975 p43).

Another event that attracted government attention was the Design Policy conference in 1982. Like its predecessor ‘Design for Need’, this conference was hosted by the Royal College of Art but was a very much broader event. In describing the event, Madge suggests there was “open contradiction” in the conference, citing the example from the conference programme where a foreword by Margaret Thatcher on the theme of Design for Profit was followed by a statement by Shridath Ramphal37 on the North South divide (Madge, 1993 p158). By placing these two contributions on the same platform, the organisers appeared to emphasise the importance of design as a factor in economic development, thus reinforcing a top down model of development at the expense of its potential role in more grass roots development, which were being discussed as part of the Design for Need movement.

In the introduction to the proceedings of the Design for Society section of the Design Policy conference, Nigel Cross proposed that a paradigm shift was about to take place in the design industry from a wealth-creating activity to a wealth-distribution activity. He also

37 The then Commonwealth Secretary General (1979-90). For more information see: http://www.thecommonwealth.org/Internal/191183/169943/169946/sir_shridath_ramphal/ retrieved 10.4.12
predicted that the products of the emerging era of ‘post industrial design’ would be long-lived and repairable, and that the design process would change to become democratic and externalised, resulting in the radical suggestion that design input would become anonymous (Cross, 1982 p5). These statements by Cross directly contradict the groundswell of events discussed above, centred around ideas of Design for Profit. This is perhaps one of the first examples of the discussion of design addressing social need being moved to the periphery of the debate. This was only six years after the ‘Design for Need’ conference when Black questioned whether any other view of design was justified apart from that of addressing social need (Black, 1975 p42). Similar issues of democratic or participatory design are raised by Papanek a year later in his book ‘Design for Human Scale’ (1984) and have continued as a theme in design research exemplified by work at the RCA in the Department of Design Research (1960-1985) and later the Helen Hamlyn Centre.

In the same Design for Society section of the conference, Mohammed Idris delivered a damning critique of designers as elitist and under the control of the free market at the expense of designing for the poor and marginalized. He went on to say:

The irony of the situation in the Third World is that despite not designing for the poor, designers do have an impact on the poor in the sense of making Third World people lose self-confidence in their autonomous and indigenous designs, cultures and lifestyle (Idris, 1982 p22).

Alma Williams supported this view by exploring the negative influence of western advertising on the values and aspirations of people in the developing world (Williams, 1982 p7). Trilokesh Mukherjee, addressing design and the crafts and attempting to define the boundaries of each from an Indian perspective, concluded that in this context there are grey areas between design and the crafts. He posed the question, as long as function and the needs of the user are paramount, “Can they learn from each other?” (Mukherjee, 1982 p34). In a paper described earlier in the review (3.1.7), Papanek addressed the erosion of indigenous design capacity by western influences and cited some examples of attempting to reverse this trend by deliberately minimalist intervention from the West (Papanek, 1982 p45). Clive Dilnot explored the concept of design as a socially significant activity in its broadest sense, challenging simplified understandings and encouraging a complex integrated view of the role of design in society (Dilnot, 1982 p101). Alfonso Gomes described the process of setting up a design consultancy in a developing country. In order

38 For more information see: http://www.hhc.rca.ac.uk/199/all/1/history.aspx - retrieved 10.4.12
to establish the activity of design as an agent for change in developing countries, he advocated a holistic integration of development activity in the design process from research to market launch (Gomes, 1982 p48). Mike Cooley addressed the topic of socially useful design with examples from the Lucas plan initiative (Cooley, 1982 p51).

As described earlier, the conference contributions represented a broad range of positions in relation to design. Although design with a social agenda was still present, it appears it was being quietly moved to the sidelines to make way for ‘Design for Profit’. This event was perhaps the first in a long line of conferences on design, which exhibited a broad platform of design thinking making room on its periphery for debate on the role of design outside the mainstream but largely from an academic perspective.

At the end of the decade, another conference ‘Design and Development in South East Asia’ took place in Hong Kong. It was attended by a large number of academics from developing countries in Asia. In the preface to the proceedings, Rajeshwari Ghose explains, “The conference originated from a desire to bring about a meaningful interdisciplinary discourse between developmentalists and designers” (Ghose, 1990 piv.).

The conference attracted papers from a number of different disciplines including development theorists, as well as architecture and design across a range of countries; papers of note relating to the theme of this research were delivered by Singanpali Balaram, Ashok Chatterjee, Rajeshwari Ghose, and K Munshi. Ghose provided an overview paper of the conference topic, highlighting the differences between western and Asian concepts of design, focussing on different approaches to design in a development context to date (Ghose, 1990 piii).

Munshi discussed the dynamics of design in technology from an Indian perspective, emphasising the role of design as the humanising agent of technology. He stated that “This should not be design as it is generally practised: to beautify useless products of technology and aid industrialists to exploit the weaknesses of people” (Munshi, 1990 p40).

Balaram discussed Indian Government Policy on Design, and proposed an alternative approach wherein designers had a responsibility to find locally owned solutions via a participatory approach. He discussed examples of initiatives to integrate design in a rural
context. Two of these examples are the rural university project by NID\textsuperscript{39} and his proposal for ‘Barefoot Designers’ (Balaram 1990 p59). The rural university project, conducted by NID in 1976, was an early exploration of the role of industrial design in rural development; it was based in Rajasthan in collaboration with the Indian Institute of Management, Ahmedabad. Balaram’s ‘Barefoot Designers’ proposal takes the concept of the Chinese barefoot doctors and applies it to design. Proposing that designers are immersed in the community and respond to local problems with design solutions, he discusses this idea in more detail in his book ‘Thinking Design’ (Balaram, 1998 p103). He concludes the paper saying:

One must realise that development is not ‘catching up with yesterday's West or East’ but developing one's own capabilities to the maximum. Not only that, true development is to realise one's best and to use it to become a pace-setter in some areas, to stand with dignity in a competitive world (Balaram, 1990 p60).

Chatterjee charted the development of design in India from indigenous crafts beginnings via the swadeshi movement (see footnote 27 p60) inspired by Ghandi and the influence of the Eames report up to the end of the century. In discussing the interest of the profession in the solutions to meet basic need at a rural level, Chatterjee asked the question

Has the glossy image of studio design for sophisticated markets, so irresistible in the cross currents of international exchange, overwhelmed the original challenge of design in India?” He goes on to ask “…in this land of contrast and contradiction, which client will designers choose? (Chatterjee, 1990 p184).

During this period there were also a small number of articles in the Design Council’s magazine ‘Design’ and in an exhibition at the Scottish Design Centre, which although general in nature would seem to point to a continuity of interest in the area. In an article in 1983, Berg explored the role of intermediate technology and human-centred technology transfer in a development context (Berg, 1983). In 1985, the exhibition at the Scottish Design Centre continued this theme and showcased the work of the Intermediate Technology Development Group (ITDG)\textsuperscript{40} (Design for Need, 1985). In the following year an article by Love explored the challenges of design interventions in developing countries and highlighted the need for broad educational approaches in design and innovation (Love, 1986 p13).

\textsuperscript{39} For more information see: http://www.nid.edu/aboutus_1971-1980.htm - retrieved 10.4.12

\textsuperscript{40} ITDG The Intermediate Technology Development Group, now known as Practical Action “…works with poor communities to help them choose and use technology to improve their lives for today and generations to come ”. For more information see: www.practicalaction.org/ - retrieved 10.4.12
In 1989, James Woodhuysen reported in Design magazine on a seminar at the International Design Forum in Ulm, Germany, which highlighted issues arising from the role of design in a development context. He suggested that the event signalled that West Germany\textsuperscript{41} may be the best country to put design for a development context back on the agenda (Woodhuysen, 1989 p20).

### 3.1.13 An increase in academic interest

In the late 1980s and early 1990s there was a growing academic interest in the role of product design in what was described as ‘Newly Industrialised Countries’. Manchester Polytechnic, now Manchester Metropolitan University, became a focus for study in this area of design research and a number of PhD studies were produced; Bajuri, 1988, Kim, 1989 and Er, 1992. This initiative in Manchester was encouraged and supported by John Langrish.

In 1989, a new magazine ‘Adbusters’\textsuperscript{42} was launched in Vancouver, Canada by Kalle Lasn. In the years since its launch this publication has grown to a circulation of 120,000 subscribers worldwide (2010) and has been at the heart of a movement to question the practices of large-scale multinational companies such as ‘Nike’ and ‘McDonalds’. One of the primary strategies of Adbusters has been to parody well-known advertisements of such companies in a way which poses questions about their influence on society. In a press release, they describe their motivation “We strive for a world where economy and ecology resonate in balance and we have a knack for coaxing people from spectator to participant” (Lasn, 2006 p1). Although this publication deals primarily with visual communication in its many forms, its existence and success is evidence of a greater awareness of the role of design and globalisation. The people behind the magazine were also instrumental in the relaunch in 2000 of the ‘First Things First’ manifesto, which is discussed later in the section (3.1.15).

At the beginning of the 1990s, Bonsiepe produced two publications in English. The first one was a chapter called ‘Developing Countries: Awareness of Design and Peripheral Condition’ in the book ‘Dominion of Design.’ This book is one of three volumes edited by Carlo Pirovano entitled The History of Industrial Design. The piece is an overview of

\textsuperscript{41} In 1990 East and West Germany became reunified. The political and economic atmosphere preceding this event may well have influenced the agenda of this conference.

\textsuperscript{42} Based in Vancouver, British Columbia, Canada, Adbusters is a not-for-profit, reader-supported, 120,000-circulation magazine concerned about the erosion of our physical and cultural environments by commercial forces. For more information see: http://adbusters.org/about/adbusters - retrieved 28.6.10.
design activity in a development context, or as he would describe it ‘the periphery,’ illustrated with case studies from a number of countries. In an attempt to define the nature of design in the periphery, he suggested, “It is the dissimilarity of context that obliges us to approach peripheral design with other yardsticks than ‘good design’ or ‘design for fun’. In general, the chapter takes the position that the role for design is in national economic development. Bonsiepe sets out criteria in tabular form for determining the status that design has achieved in a particular economy on a scale ranging from ‘proto design’ at the artisan level through to the ‘sovereignty phase’, a term which he used to describe the state of development of the design industry in the west (Bonsiepe, 1990 p252). The table can be read in two ways: One is that design activity in any country should develop until it has achieved ‘sovereignty’ where it has the broadest influence on a given society; the other as a description of the different scenarios in which design can be used in a country. These readings are not necessarily mutually exclusive; design can operate at both an industrial level and a grass roots level in the same country at the same time.

The second paper, published in Design Issues in 1991, took a similar position and looked at the role of both graphic and industrial design in Latin America. He explored the reasons behind the apparent dislocation between design education and industry and proposed that one of the major reasons was the absence from Latin American culture of design discourse (Bonsiepe, 1991 p17).

In 1993, Nigel Whiteley published the book ‘Design for Society’ (Whiteley 1993). The introduction to the book articulated a new wave of growing interest in design as a response to social need, which he proposed was fuelled by a number of disenchanted designers. He cited a number of people from the design profession who were disenchanted with the effect that design was having on society. He also quoted Jeremy Myerson, a design writer and currently the director of the Helen Hamlyn Research Centre, who said, “Design is fast becoming a weapon of exclusivity, of segmentation - the means by which any desirable goods and services are put out of the reach of large sections of the community” (p1).

Whiteley questioned what he calls “consumer led design”, which seeks to create and constantly stimulate desires as opposed to meeting needs. He characterised the condition of the modern consumer as being one of dissatisfaction, with a consequent sense of longing for more. He put this in a global context by stating that at the time of writing between 50 and 75% of human beings had an inadequate supply of the basic necessities of life.
Chapter 3: Section 3.1 Learning from the Literature

3.1.13

Whiteley concluded that both the mood and the time were right for “a reassessment of the role and status of design in society” (Whiteley 1993 p158).

In September 1993, the biennial ICSID International Design Congress was held in Glasgow. In a paper entitled ‘Upbraiding the World to do Better’, Erskin Childers echoed the conclusions expressed by Whiteley and called upon the design community to address the negative effects that some design activity was having in the majority world. He termed this “the allure of the affluent consumer myth of the North” (Childers, 1994 p23). In the same conference, Papanek presented a paper, which suggested that the design profession needed a new aesthetic direction, which could be found by a spiritual engagement with ecological, ethical and people-centred concerns (Papanek, 1994 p29).

During the decade there was a small number of studies in the UK addressing design in developing countries, which concentrated on a ‘grass roots’ approach. Poston, Guimarães, Masera and Southwell each published PhD theses during this period (Poston, 1991, Guimarães, 1995, Masera, 1998, Southwell, 1999). A revised version of Poston’s PhD thesis was later published under the title ‘The Blacksmith and the Farmer.’ This thorough piece of work raises a number of important issues relating to the role of design in a development context, such as the need to understand the context in which design is to operate and the importance of training being tailored to the local needs and resources (Poston, 1994).

Masera and Guimarães’ research is discussed later in the thesis. Although from different perspectives and different countries, they both address the role of design in the small scale manufacturing sector in South America. Southwell, whose writing is referred to in other parts of this thesis, explored the implications of gender on design and technology policy in a development context in her PhD thesis, using a case study approach to report on the culture and practices of a number of design groups. Among her conclusions was the need for a more participatory approach to design practice in all areas taking into account in particular those groups that have been marginalised (Southwell, 1999 p156).

Toward the end of the decade, there was a number of publications of note. In April 1997, Kenji Ekuan proposed that the boundaries between the design disciplines need to be ‘melted’ to enable designers to return to an ‘amateur mentality’ and address the many disparate problems that face society, from disaster relief to the problems that older
people face in negotiating their way through our modern cities (Ekuan, 1997a p4). Later in
the same year in another article, he discussed the response of design to what he called a
turning point faced by the world. He gave examples of this, from disaster relief and the
preservation of the environment, through to creating nurturing environments for children.
He suggested that as a profession design has “drawn apart to simply keep watch while the
world grapples with numerous serious problems” (Ekuan, 1997b p7).

In 1998 three of the largest and most influential design associations, International Council
for Graphic Design Associations (ICOGRADA), International Federation of Interior
Architects (IFI) and ICSID collaborated to form a new design organisation, ‘Design for the
World’. As stated in the organisation’s website, the aim of the organisation was “…to
match the skills and commitment of volunteer designers with the needs expressed by
disadvantaged populations”43. The forming of this organisation is discussed by its
inaugural president, Kenji Ekuan, in an article in June 1997 (Ekuan, 1997b p7) and again
in 2001 (Ekuan, 2001 p9). A number of projects have been completed to date, but at the
time of writing it is still unclear what their principles of engagement are. Even as late as
October 2003, Margolin commented that the organisation was “…still discovering its
mission…” (Margolin, 2003 p15). A survey of their website in March 2009 revealed a
distinct lack of current activity or projects undertaken44.

In the same year, Singanpalli Balaram, a senior faculty member at NID, edited a book
entitled ‘Thinking Design,’ comprising of a number of his papers which express a
particularly Indian view of the role of design in a development context. Balaram sums up
the message of the book by saying: “What is now required …is not a skilled designer…but
a broad based, socially well integrated, humane designer with a broad global vision”
(Balaram, 1998 p140). Papers from this book will be referred to later in the review.
Towards the end of the decade, a paper by Victor Margolin stood out because it articulated
a new wave of interest in the field. The paper entitled ‘Design for a Sustainable World’
took a broad view of the design industry and noted that designers have done very little to
date which is outside the realm of consumer culture. “The primary question for design
professions thus becomes not what new products to make, but how to reinvent design
culture so that worthwhile projects are more clearly identified and likely to be realized”.

43 For more information see: http://www.designfortheworld.org/tpl/dw/web/dw/dw.htm -retrieved 1.3.09.
44 http://www.designfortheworld.org/tpl/dw/web/project/project.htm - retrieved 1.3.09.
He proposed that “Design will be changed through a coming to consciousness of its individual practitioners.” and concluded by saying “If the will exists among designers, it will surely be possible to reinvent industrial design. If it doesn’t, designers will simply become part of the problems whose solutions other professionals will need to invent”. (Margolin, 1998 p92).

3.1.14 A focus on fieldwork and a sustained level of interest in South Africa

In the early 1990s, there was a growing interest in the subject of design in development in South Africa. The South African Bureau of Standards (SABS), in collaboration with the Design Education Forum of South Africa (DEFSA), organised five conferences between 1993 and 2007, which explored a broad spectrum of issues relating to design in a development context. The initiative in South Africa predates the formation of the ‘New South Africa’ in 1994\(^45\), although this initiative certainly gained support from subsequent governments. The Design Institute, which is a part of SABS, was set up in 1969 and promotes product design throughout the Southern African development community (Viljoen, 1999 p10). Martin Kellermann, the Senior General Manager of SABS stated that Design can and will make a significant contribution to the achievement of the Southern African dream because it is a manifestation of the deepest urge in all people, the urge to create. Creative and innovative design will open trading opportunities undreamt of today (Viljoen, 1999 p16).

From the five conferences, only three sets of proceedings were published; 1993, 1995 and 1997, in which there was a number of papers of relevance to this study. In 1993, Odoch Pido’s paper ‘Don’t Blame The Sky’ challenged the design educators of Kenya to move out of a blame culture focussed on the legacy of colonialism and build a design education which is relevant to the future needs of the country (Pido, 1993 4 p1). Chandra Naidu explored the possibilities of empowerment of rural communities through design education and in particular culturally sensitive textile printing (Naidu, 1993 10 p1). In 1995, the theme of the conference was Design Education and Small Business Development. Dr Raj Isar of UNESCO discussed the role design can play in a development context to link contemporary design to traditional craft production skills, concluding that design should facilitate local solutions for local need and foster high levels of product quality (Isar, 1995

\(^{45}\) For more information see: http://www.info.gov.za/aboutsa/history.htm#decade - retrieved 10.3.10
3 p1). Grace Kidula highlighted the role of design education in the Jua Kalí\(^{46}\) sector in Kenya (Kidula, 1995 p1). Kinyua Muriithi, of the department of design in the University of Nairobi, issued a challenge to designers “to reflect on the contribution they can make to the development and the sustainability of small enterprises in developing countries” (Kinyua, 1995 p7). Nathan Shapira, who has been involved in this field since the early 1970s, presented a paper on design education for socio-economic development, highlighting the contribution of Selby Mvusi, a South African design education activist (Shapira, 1995 20 p1).

In 1997, the conference was hosted in Pretoria and a number of papers were presented which challenged the current position in the discourse of the role of design in a development context. Mirjam Southwell called into question what she called the ‘Oxfam catalogue syndrome’, which she suggested condemned the crafts sector in developing countries to producing “ethnic knick-knacks” for western markets (Southwell, 1997a p2). Jacqui Corlett and Jackie Guille addressed the training needs of the textile industry. Corlett lived and worked in Bangladesh and designed a programme of training which fitted the specific skill needs in that socio-political environment (Corlett, 1997 p1). Guille drew a similar conclusion in her study of textile crafts collectives in South Africa, concluding that "Design education must be energised, encouraging the intermingling of new influences, creating a fertile climate within which improbable ideas can evolve and reflect a changing society" (Guille and Wells 1997 p11/18).

Although the proceedings of the conference were not published in 2001, as a delegate at the conference, I observed that the papers presented covered a broad spectrum of design in a development context. In particular, Raza and Du Plessis reported the initial findings from a collaborative project between Pretoria Technikon and the National Institute for Science Technology and Developmental Studies (NISTADS), New Delhi, India. Their report addressed indigenous knowledge and appropriate training methods. Initial findings suggested that new methods for training artisans were required which reinforced indigenous knowledge and traditional apprenticeship methods but at the same time drew out the positive aspects of more formal education systems. The project is reported in the following publications, Raza and Du Plessis, 2001, Raza et al., 2002, Raza and Singh, 2002, Raza and Du Plessis, 2002.

\(^{46}\) **Jua Kalí** is the Kiswahili word for ‘fierce sun’. It is also the name given to activities in the ‘informal sector’.
Following this conference in 2001, there was little published evidence of further large scale interest in South Africa, although individual academics continued to work and present at conferences in other developing countries (Du Plessis, 2005, Mukuka, 2005). In October 2007, DEFSA hosted a conference focussed on the role of design in developing countries at the Cape Technikon in Cape Town, South Africa, which was a follow up to the Design Education Tradition and Modernity conference in Ahmedabad in March 2005. The presentations of the DEFSA conference were published on the internet and it is evident that Hettie du Plessis, Seshank Metha and Jackie Guille all produced papers which addressed the theme of this research.

3.1.15 The Twenty-First century.
It is important to note that of the references identified in this review, 58% were written in the ten years following the turn of the century, compared with the 42% in the fifty-four years between 1945 and 1999. There has been a steady increase in academic interest in design in development since 1945; this is discussed further in a paper I presented at the 2004 NDR development colloquium in Gregynog, Wales (Fathers, 2004).

Although there may be a number of reasons to explain this significant increase in volume, there is no evidence of a significant increase in projects, or new research clusters. It may be that there has been an increase in academic publishing in design, prompted by a growth in the HE sector and an increase in research active design academics, but beyond personal experience, which would suggest this is true, it is beyond the scope of this study to investigate this further. From a practical perspective, because this study began in November 2000, more recent publications were often easier to identify and obtain via electronic searching. My role as researcher in making new contacts and travelling to a range of developing countries also served to identify publications, especially in developing countries, which I may not have otherwise found. Because of the increased volume of publication in this period, the following section of the review will be organised thematically as well as chronologically.

- The wider design community
Although the primary focus of this literature review has been the role of product design in development contexts, this exercise has also identified a number of social design initiatives in graphic design and architecture. In August 1999, thirty-three visual communicators signed a revised version of the ‘First Things First’ manifesto. This was published as ‘First
Things First 2000’. The original manifesto, published by Garland in 1964, is discussed earlier in the review (3.1.6). This revised and re-released version was initiated in part by Adbusters, a group who emphasised its continuing relevance. The revised version was perhaps even more radical than its predecessor, calling for “…a reversal of priorities in favour of more democratic forms of communication” (Adbusters, 2000). Rick Poyner, one of the signatories to the re-released manifesto, comments on its effects and continuing relevance to design in a paper to an International Symposium, attached to the 19th Brno Graphics Biennale in 2000 (Poyner, 2000). Poyner later went on to publish a book which underlined the same issues entitled ‘Obey the Giant: life in the image world’ (Poyner, 2001). Although Naomi Klein’s book ‘No Logo’ is not about design, it articulates a growing disquiet amongst many consumers of the clothing industry in western society, in a similar vein to the Adbusters publications. Klein reports on the actions of large multinational companies accused of employing child labour and poor labour practices, especially in a development context (Klein, 2000). Although these references do not relate directly to product design, they do point to a growing body of interest in the role of design with respect to issues of social responsibility.

In May 2001, the Superhumanism conference, organised by the Design and Art Directors Guild (D&AD) in London, called for a return to a more human-centred society. This initiative was another example of a response to this area from the wider field of design. Nico Macdonald’s article, reporting on the conference in ‘New Design’ magazine, tells a story of speaker after speaker with poorly constructed arguments and an even poorer idea of what to do to change practice. Although in conclusion he did suggest that this event marked a point in design history when designers were perhaps more aware of their role in society than at any time in the past twenty years (Macdonald, 2001 p26). Despite mixed reactions, the conference generated enough interest to prompt an issue of the magazine devoted to design ethics, but with no mention of design activity in a development context.

Four years later Macdonald again comments on design in this wider context. He explores the expanding view of design as a force not only in business, but also increasingly in areas of social need. As an example of this, he cites the awarding of the prestigious Design Museum ‘Designer of the Year Award’ to Hillary Cottam, then a director at the Design Council. What was unconventional about this award was that Cottam focussed on the application of the design process to schools and prisons, not addressing the fabric of the buildings but intangibles such as atmosphere and achievement. He concludes the article
with a concern that the increasing involvement of design in areas other than business runs the risk of undermining its credibility with these more traditional partners (Macdonald, 2005 p26). This conclusion ignores the significant increase in corporate social responsibility activity by large companies since the 1980s (Utting, 2005 p375) and also does not take into account the fact that government and organisations such as the Royal Society of Arts (RSA) and the Design Council have been challenging the profession and design education to address these ‘other areas’ for many of years, via the Design Directions competition and projects such as Design Against Crime47.

Initiatives of socially responsible design were also identified in the field of architecture. In October 2003, the Archeworks programme, based in Chicago, celebrated its tenth anniversary with the launch of the Archeworks Papers. At this event Victor Margolin delivered a paper entitled ‘Healing the World’, in which he explores the role of design in the context of social need, reviewing a number of projects which address such needs and summing up with the work of the Archeworks projects (Margolin, 2003). In 2005, Archeworks published ‘Design Denied’, a collection of essays that was the culmination of a three-year project, documenting the withholding of good design from all but the elite of society, summarising the Archeworks projects (LaCoste, 2005).

In September 2005, Margolin was invited to present a keynote lecture to the faculty and students of the Ontario College of Art and Design, as one of a series of talks entitled ‘Design and Humanity’, a theme that is reported to be strongly supported in this particular institution. The title of the lecture was ‘The Citizen Designer’. Margolin took as his key reference William Morris’ lecture ‘Art Under Plutocracy’, stressing the importance of a holistic worldview as a designer, understanding the influence of the design profession and working together with other civil society groups for incremental change (Margolin, 2005a).

- **International activity**

  **Brazil**

  In the proceedings of the ‘Design Plus Research’ conference Politecnico di Milano 2000, two design initiatives were identified in Brazil with relevance to this research. Antonio Braga and Maria Loschiavo Dos Santos focus on different roles for design in a development context.

47 For more information see: www.rsadesigndirections.org/ and http://www.crimereduction.homeoffice.gov.uk/securedesign/securedesign1.htm - retrieved 11.4.11
Braga looked at the use of design expertise as applied to local industry in Pará, the least industrialised state in Brazil. The aim of these activities was to use design as a means of increasing the competitiveness and improving manufacture of these goods, in the hope that this would stimulate employment and local industry (Braga, 2000 p439). Maria Loschiavo Dos Santos discussed ‘spontaneous design’ created by non-designers, homeless people, street vendors and also street performers in the major cities of Brazil. She describes the study of this type of spontaneous design as a “…celebration of the human ability to design under extremely difficult situations.” (Loschiavo Dos Santos, 2000 p462).

**Norway**

In the February 2001 issue of ICSID news, Åse Haugeto reported on the launch of a new initiative by Norskform, the Norwegian Centre for Design, Architecture and the Built Environment, entitled ‘Design without Borders’ and funded by NORAD, the Norwegian Government Department for Development. The project concentrated its effort on two fronts; design for relief operations and design for longer term development (Haugeto, 2001 p13). In January 2002, they hosted a conference, which is reported on later in the critical review, and this was later published in book form. Both conference and book bore the ‘Design without Borders’ name. The papers presented at the conference included contributions from Rob Aley, who was then a designer with ITDG (p51), a discussion of indigenous design capacity by Kati Reijonen (p61) and other papers which describe a number of practical design projects based at grass roots level, addressing the expressed needs of local populations (Haugeto and Knutslien, 2004). The majority of the papers in this conference were of this type, which in itself is rare in the discourse of design in a development context.

**Holland**

A similar organisation to Design Without Borders, Dutch Design in Development (DDiD), was also set up in Holland via collaboration between the Dutch National Committee for International Cooperation and Sustainable Development (NCDO) and the Institute of Dutch Design and the Marketing Federation (BNO). The DDiD publications do not identify a start date for the organisation, although it appears to be a relatively recent initiative and was certainly in existence in 2006. Their remit is to match Dutch designers with needs identified in development contexts and their

48 For more information on the DDiD see their web site [www.ddid.nl](http://www.ddid.nl) - retrieved 10.4.12
web site lists a number of collaborations with organisations in developing countries that are interested in appointing designers for short to medium-term projects.

**USA**

In 2001, a conference was held at MIT as part of the Think Cycle initiative. This initiative by MIT was later manifest in a second conference in 2002 and then by an on-going web presence, collating and facilitating discussion around the subject of design in development\(^{49}\). The conference ‘DyD01 Development by Design’ hosted at MIT, attracted a wide-ranging group of papers with foci in information technology, design theory, medical technology and appropriate technology (Thinkcycle, 2001). In July 2002, the second conference in the series DyD02 was hosted by The Srishti School of Art, Design and Technology in Bangalore, South India. Again, a wide-ranging group of papers was attracted, focussed on the role of design in a development context (Thinkcycle, 2002). Examples of papers presented in these conferences were written by Poonam Bir Kasturi, Arvind Lodaya, Tim Coward and Angharad Thomas, Prem Chandavarkar (Kasturi, 2005, Kasturi, 2002b, Lodaya, 2002, Chandavarkar, 2002, Coward, 2002). As described earlier, the Thinkcycle web-based initiative was arose out of a PhD project at MIT by Nitin Sawhney.\(^{50}\)

**India**

In 2003, the Crafts Revival Trust\(^{51}\) based in New Delhi, India published a large and significant document, entitled ‘Design Interaction with Crafts Persons: Best Practices’. The report was compiled in collaboration with the four main design education institutions in India (NID, IIT, NIFT and Srishti) that engage with the crafts sector, as well as a wide range of practitioners and activists. It documents a range of crafts interventions and concludes with a series of key issues for design intervention in a crafts context. The majority of these issues are based on the principles of good participatory development approaches. However, in addition to this there is an emerging theme relating to the

\(^{49}\) For more information see [http://web.media.mit.edu/~nitin/thesis/](http://web.media.mit.edu/~nitin/thesis/) - retrieved 10.8.06

\(^{50}\) The last check on the web presence January 2009 revealed that the web presence [www.thinkcycle.org](http://www.thinkcycle.org) had been removed. The last time that this URL was successfully accessed for this project was 10.8.06.

\(^{51}\) The Crafts Revival Trust was set up in 1999 as a non-profit organisation with the aim of building an information and knowledge infrastructure for the Rural Folk Arts, Crafts and Textiles in South Asia. For more information see: [http://www.craftrevival.org](http://www.craftrevival.org) - retrieved 10.8.06
introduction of new manufacturing technology to the sector and its potential positive and negative effects (Mohan et al., 2003).

ICSID and The British Council

In the February 2002 issue of ICSID news, both Victor Margolin and Carlos Hinrichsen refer to the need for a focussed approach for design education to prepare designers for the realities of social need and economic development (Margolin, 2002a p4; Hinrichsen, 2002 p5). The same issue carries an article by Peter Butenschön, the then president of ICSID, with a focus on social responsibility. The article highlights the work of ‘Design for the World’, a collaborative design initiative previously mentioned in the critical review (Butenschön, 2002a p3). He returns to this broad subject in the October 2002 issue with a call for good practice in design (Butenschön, 2002b p3), which he repeats in the proceedings of the 2002 ‘Design without Borders’ conference (Haugeto and Knutslien, 2004 p7) and again in a keynote address to the Design Research Society conference ‘Common Ground’ in September 2002 (Popovic, 2002 p9). The outspoken support by the president of ICSID is significant in terms of progressing the agenda in the design field, but outside of a small circle of interested academics, there seems to have been little influence on projects affecting development contexts.

The area of design, which has consistently raised awareness of such issues to a wide audience in design education, has been the Royal Society for the encouragement of Arts Manufactures and Commerce (RSA) A design directions competitions and the smaller Audi Design Foundation Designs of Substance projects.

In December 2002 and March 2003, the ICSID and South East Pacific and African Regions held their meetings in Ahmedabad and Gabarone respectively. The themes of their meetings were; ‘Creating and Accessing Better Quality of Life’ and ‘The Strategic Partnerships between Design and Sustainable Development’ (O. Koshy, 2002 p4, Viljoen, 2002 p5).

In March 2002, the British Council initiated a programme in Kenya called ‘Designing Tomorrow’. The initiative was a series of events over two months based in the capital

52 For more information see: http://www.rsadesigndirections.org/publications.html - retrieved 1.3.09.

53 For more information see: http://www.audidesignfoundation.org/content.asp?menuid=41&submenuid=64&pageid=64&menuname=Designs+of+Substance&menu=sub - retrieved 1.3.09.
Nairobi. The theme of these presentations was the role of design in economic development, with a broad focus from urban renewal to branding. The initiative also seemed to be a vehicle for a travelling exhibition of the millennium product awards, which promoted British innovation (British Council, 2002).

- **Conferences**

Three conferences have taken place since the turn of the century, which addressed aspects of design related to this study. The Design History Society held a conference in June 2002 in Istanbul, Turkey and one of the strands of the conference was Design in the Periphery. Alpay Er, mentioned earlier in the critical review, was the convener of this strand and Gui Bonsiepe was a keynote speaker. One of the outcomes of a discussion track of the conference was the decision to launch a new network of researchers, concentrating on the role of design in peripheral countries.

In September 2002, the Design Research Society hosted the conference ‘Common Ground’ at Brunel University near London. The conference was typically very broad but included a small number of papers of relevance to the subject of this thesis, including a paper by Victor Margolin on a social model of design practice and research. The paper draws on models of research and practice pioneered in social work to provide a framework for good practice in design interventions in projects where social need is a factor (Margolin, 2002b).

In March 2005, NID hosted an international conference on Design Education. As would be expected from the institution founded on the principles of the Eames report, there were a number of papers presented which addressed issues surrounding the role of design in a development context with a focus on ground-up, people-centred initiatives. Out of a total of ninety-three papers, eighteen followed this theme. However, this theme was juxtaposed by a more dominant theme promoted by the management of NID, highlighting design as a key factor in industrial development. This agenda was supported with speakers from the Indian Government, Silicon Graphics, and other leading figures. In the NID in-house journal published for the conference, a speech by the Indian president Dr APJ Abdul Kalam was published, entitled ‘Competitiveness Through Design’. This again reinforces the view of design as an economic driver but also gives some space to the intervention of designers in a crafts context (Kalam, 2005 p29). Other articles in the same journal issue address the importance of design in business (Nath, 2005 p34) and the role of design in brand development and promotion of crafts in Bihar (Bholey, 2005 p36). At the same
conference, it was proposed that a new Ahmedabad declaration would be launched which would point the way for the future role of design in developing countries. When the declaration was eventually published as the backdrop for the DEFSA conference in Cape Town in September 2007, the declaration was limited to design education (NID, 2005) (reported earlier see p79).

- **Publications**

  Apart from journal papers only one publication has been identified with specific relevance to this study since 2004. This book ‘Designers Meet Artisans: A practical guide’ (Sethi, 2006) published by the Crafts Revival Trust (CRT) follows on from the report by CRT discussed earlier in the thesis ‘Design Interactions with Craftspersons’ (Mohan *et al.*, 2003). Using some of the same source material it discusses the interactions between designers and artisans from a wide range of positions. The publication takes the form of a practical guide to interaction in the crafts sector, offering case study material and feedback from fieldworkers. The discussion supports a number of the points raised in the thesis such as the importance of focussing on local markets (p7), the challenge of external designers relegating crafts people to makers alone (p8) and the sustainability of crafts enterprises (p134). Other issues such as documentation and preservation of crafts knowledge and appropriate technology are also discussed at length. What the discussion and case studies identify, but fail to address in any detail, is how to empower crafts people to design for themselves. Although it is recognised that respect for the crafts people and sensitivity to the existing context is important, there is no attempt to discuss specific methods of engagement or training strategies. Overall the book provides an excellent overview of a wide range of crafts interactions at the point at which this field study took place and emphasises the need for an in depth study on design training strategies for the crafts sector. Other books that are of some relevance in general terms, such as ‘Design Like You Give a Damn’ (Architecture for Humanity, 2006), ‘Design for the Other 90%’ (Smith, 2007), ‘Design Is the Problem’ (Shedrof, 2009) and ‘Design Revolution: 100 Products That Empower People’ (Pilloton, 2009), concentrate on design and architectural outputs as a means of addressing problems in development contexts as opposed to the role of design training in facilitating more sustainable livelihoods.
**Published Articles**

In the Summer 2002 issue of Design Issues, Uday Athavankar discussed design in search of roots based on an Indian experience. He questioned the role of design as a tool for economic development on cultural diversity, calling for designers in the future to be equally aware of protecting cultural capital as of generating functional solutions (Athavankar, 2002 p43).

In the March 2004 issue of the online journal The Design Philosophy Papers, Reijonen, in a paper entitled ‘Design and Developing Countries’ questioned the need for design in developing countries. She asked if the egocentric design hero is the accepted norm. In societies that value tradition and community over progress, where does the designer fit? (Reijonen, 2004 p2). In the same issue, Margolin argued for a new look at design education at Masters level which would go some way to preparing designers to address the complex and collaborative potential role for design in the context of social need and to challenge the existing paradigms within the design industry (Margolin, 2004 p1).

In the Autumn 2004 issue of Design Issues, Sulfikar Amir called for a ‘Rethinking of Design Policy for the Third World’, using examples from a range of developing countries he concludes that such policies are for the most part focussed on serving the needs of large scale industry. In contrast he proposes an alternative policy of participatory human-centred design, focussing on people’s needs for improving equity and empowering a breadth of stakeholders to be involved (Amir, 2004 p68).

In December 2004, MP Ranjan wrote an article for the Design Plus journal (a NID publication), outlining his views on design in development and suggesting that in the context of a serious absence of design, a relatively small investment in design can cause an “avalanche effect” (Ranjan, 2004a p22).

In Autumn 2005, a special issue of Design Issues was published focussing on India. The editor was an American, Martha Scotford (2005 p1), who had travelled and taught in India in 2001. The papers were selected from an open call, the spread of subject matters was broad and the depth of analysis in the papers was mixed. There were three articles of
Chapter 3: Section 3.1 Learning from the Literature 3.1.15

interest to the study, which have been referred to in earlier sections of the critical review (Balaram, 2005, Chatterjee, 2005, Kasturi, 2005).^54

In the winter 2005 issue of the Design Issues Journal, Sherry Blankenship addressed the issue of globalisation and its effect on communities. Taking as her evidence experience of teaching design in a number of development contexts, she explored ways in which design can become a force for the sustainability of local cultures, by a model of dispersal and local definitions rather than following a hegemonic central ‘western’ definition (Blankenship, 2005 p4).

In a paper directly addressing design development, Fry discusses alternative directions for design in development sounding a note of caution that designers, though believing they are making a positive contribution to human development, can do more harm than good. This argument was put forward in the Design for Need conference (Lloyd-Jones, 1976 p93) and is supported by interviews with Ballyn and Bonsiepe (3.3.4). Although the points Fry makes reinforce conclusions drawn in this study, particularly 5.3 and 5.5, he does this from a theoretical position without practical examples of how designers can engage in development contexts in a positive manner (Fry, 2005).

Stairs discusses social responsibility in general and altruism as a design methodology in particular (Stairs 2005). Although the discussion is of general interest, the paper does address specific instances of how such methodologies might work in practice.

In her paper Design, Poverty, and Sustainable Development, Angharad Thomas conducts a broad review of design being used in development contexts. As comparative examples of practice she refers to crafts projects in Nepal and Zimbabwe. In Nepal, “Design input often comes from the producers themselves, who have an indigenous knowledge of their particular kind of production. But for continuing marketing success, especially for the export markets, external design input is needed…” (p55).

She went on to say in contrast to this, that in the case of embroidery crafts people she had worked with in Zimbabwe “…design innovation and product development, as well as market development, came from the foreign aid worker assigned to working with the women. Unfortunately, this was not sustainable despite efforts made to transfer skills,

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^54 The article by Kasturi had been originally published in the DyD conference proceedings in 2001.
knowledge, and information to the members of the group” (p55). Concerns were expressed regarding the economic benefit of crafts production but she went on to say that “…However, under certain conditions, craft production can make a significant contribution to poverty alleviation” (p56).

These cases were used to underline the author’s contention that the way design activity is introduced and supported to crafts enterprises is crucial in determining whether it is a sustainable influence towards improved livelihoods. She concludes by saying that “…used in appropriate ways by designers and others, as agents of change, design can be brought into the lives of poor people and improve their livelihoods by increasing income and making available to them better goods, products, and equipment” (Thomas, 2006b p64).

Oosterlaken advocates a capability approach to design in development as a means of empowerment. This approach is drawn from an analysis of Sen’s work on capability (Sen 1999) in comparison with participatory approaches to development. The paper reports on the beginnings a project centred around her doctoral studies in Holland. The focus of the project is not clear from the article, but although it does it not refer specifically to design training for the crafts sector it is of interest because of the discussion about the approach to design in development contexts (Oosterlaken 2009).

In his paper ‘Design in India: The importance of the Ahmedabad declaration’, Balaram reviews the context that prompted the declaration. He then goes on to say that although the declaration should have been a “watershed event” for design in India, in reality it “remained largely as a statement of intent and less as a thing of achievement” (p61). He compares the declaration with the National Design Policy introduced in 2007, noting its lack of reference to the “vast crafts community” in India (p63). Balaram offers few conclusions, leaving the lack of achievements prompted by the declaration and the subsequent wholesale adoption of the“kind of design that the developed world practices” to speak for themselves (Balaram, 2009 p64).

The majority of the papers identified in recent years refer to the general area of socially responsible design or discuss design in development as an approach rather than the practicalities of how this may take place. Only one of the papers identified focusses on the role of design as a means of improving livelihoods via targeted interventions (Lawson, 2010). Although this paper raises similar issues identified in this study namely the
importance of empowering craftspeople to improve their products by design, it eventually concludes that although it is more sustainable to empower craftspeople to design products themselves, the problems they encountered with this approach led them to adopt a model whereby western experts provided designs for craftspeople.

### 3.1.16 Signs of acceptance

In the past ten to twelve years, there have been signs of a growing relationship between designers and members of the development studies community. In her doctoral research, Southwell explored the role of design in a development context and in a number of articles suggested that there were lessons to be learned from development (Southwell, 1997b p1, Southwell, 1997a p2, Southwell, 2001 p1).

Another sign of this emerging conversation is a series of seminars in mid Wales, run in collaboration with departments of social science, development studies and design. The Gregynog colloquiums, organised by the Network of Development Researchers, Wales (NDR)\(^{35}\) on development, have been running for a number of years, but over the last five years have welcomed papers from a number of designers exploring the role of design in a development context (Fathers, 2004, Thomas, 2006a and 2006b, Smith, 2006, Fathers, 2006).

In addition to this, a number of groups have been established in recent years which reflect this interest. In 2001, a group of academics in Cardiff and Salford arranged a seminar on design and development (Coward et al., 2002). The result of the seminar was the establishment of the Cardiff Group\(^{36}\), a multi disciplinary research group of theorists and practitioners with members from a number of different developing countries as well as academics from design, economics and development studies backgrounds. In 2004, a design and development special interest group was set up by Angharad Thomas on behalf of the Cardiff Group as part of the Development Studies Association (DSA) with the intention of running a special interest track in forthcoming DSA conferences. Unfortunately this group has now lapsed.

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\(^{35}\) Members of the Cardiff Group recently collaborated with colleagues from development studies and the social sciences at other universities in Wales to form the Network of Development Researchers, Wales (NDR). For more information see: [http://www.cardiff.ac.uk/sosci/researchclusters/ndr.html](http://www.cardiff.ac.uk/sosci/researchclusters/ndr.html) - retrieved 12.4.06

\(^{36}\) For more information on the Cardiff Group see: [www.thecardiffgroup.org](http://www.thecardiffgroup.org) - retrieved 10.4.12
In June 2005, an article on the role of design in a development context was published in the journal Development in Practice. This again seems to signal a level of interest in the subject by members of the development community (Coward and Fathers, 2005 p451) (see Appendix 8, A8.2). In addition to this, a paper was presented at the 8th Oxford Development conference in September 2005, which reported on the initial findings from the fieldwork for this research project (Fathers, 2005). The scope of the conference covered education and development, and included contributions relating to technical and vocational education and training, but there were no other contributions from a design perspective.

Since 2005 the only paper identified in development journals which appeared to relate to the role of design and in particular design training in a development context was by Roderick and Simpson (2007). However, on further investigation it was determined that in this case the term design was being used in a broader way to describe the design and planning process of development projects.
3.1.17 Findings:

1. The literature surveyed supports the view that there has been a consistent engagement with the idea of design having a social role, particularly in developing countries in the period selected, starting soon after the end of the Second World War in 1945. In recent years, there is evidence of an increase in interest and research in the area (Whiteley, 1993 p158, Childers, 1994 p23, Ekuan, 1997 p7, Margolin, 1998 p92, Balaram, 1998 p140, Butenschön, 2002 p3).

2. Design interventions in developing countries can have a negative effect on local skills bases (Idris, 1982 p22, Balaram, 2005 p12).

3. There is potential for design to be used as an economic resource in developing countries (ICSID, 1979 p1+3, Viljoen, 1999 p16).

4. There is evidence that design activity in developing countries operates on a broad spectrum and there is a dual thrust in theory and practice in developing countries. On the one hand, design is used at a grass roots level to meet basic needs and improve livelihoods and on the other hand, it is used as a tool for the development of economies in a similar way to that in which it is used in western economies (Chatterjee, 1990 p184, Bonsiepe, 1990 p252).

5. There is a need for training to develop local design capacity in developing countries (Bonsiepe, 1973 p13, Bonsiepe, 1976 p18, Poston, 1994 p43).

6. Formal design training in this context can dislocate the trainee from the local needs, values and environmental restrictions (Balaram, 1990 p60, Poston, 1994 p115).

7. The literature surveyed supports the view that design in developing countries should concentrate on finding local answers to local needs, using indigenous skills materials and traditions (ICSID, 1979 p3, Bonsiepe, 1976 p18).

8. In order to implement effective design interventions, time needs to be taken to understand the context in which such interventions are proposed (Poston, 1991 p151, Lloyd-Jones, 1976 p92, Semiti, 1976 p37, Bicknell and McQuiston, 1976 p150).
9. The literature surveyed supports the view that design interventions in developing countries should concentrate on products that have a ready local market, focussing particularly on empowering local crafts industries to meet these needs (Mullin, 1978 p22).

10. Design thinking in developing countries can be successfully applied on a broad base as a problem solving strategy (Corlett, 1997 p10, Balaram, 1998 p93).

11. The literature surveyed supports the view that a strategy of minimal intervention encourages local solutions tailored to local needs and environments (Papanek, 1982 p45).

12. Design training should focus on training local people who in turn can train others. Training-trainers (Nadkarni, 1976 p25).
3.2 Learning from development theory

3.2.1 Introduction

This section explores and discusses areas of development theory that have informed the design of the research project and facilitated its implementation.

The historical overview section (3.1) provides evidence of design interventions being used in development activity since 1945. However, Southwell demonstrates that in the past, this activity has largely taken place without any reference to current development practice, or perhaps more importantly does not seem to have been informed by current development theory (2001 p106). She states

Design is rarely mentioned or discussed as having a role in development… Although many development organisations’ projects aim to develop small and medium-size manufacturing enterprises, they are invariably unaware of design or have a limited understanding of what it can offer…If it is thought about at all, product design may be seen as a covert activity to be kept in the closet because of its association with art (p108).

She ends the chapter with a challenge to design “Our perception of what it is to be developed and what it means to be underdeveloped needs challenging. Design practice needs to come out of its cosy studio and take on the task of opening eyes” (Southwell, 2001 p115).

There are two main themes explored in this section which reflect the title and aims of the study; those of people-centred development and training for enterprise development. The broad development approach that has been adopted in this study has been heavily influenced by participatory development approaches. In recent years, participatory approaches to development have been widely recognised and applied in development practice, although according to Hickey and Mohan this type of approach has been a feature of development practice since the 1940s (2004 p8). The primary focus of these approaches to development is to facilitate a process that enables local populations to express their development needs and priorities and then empower them to begin to address these needs. In recent years, although there has been a broad adoption of participatory approaches to development (Chambers, 2005 p128), there have also been detractors and critics (Cooke and Kothari, 2001 p1, Rahnema, 1990 p205); these are discussed and the findings used to design sustainable approaches for the fieldwork elements of this study.
Training is widely recognised as a valuable contributor to development. The latter part of this section focuses on those aspects of training that facilitate enterprise development and those that are concerned with the acquisition of specific design skills. The relevance of design training developed in western industrialised countries is compared with the alternative models developed and employed in a development context. The section concludes with a discussion of those findings that have informed the design of the fieldwork element of the study.

### 3.2.2 Development: its origins and nature.

Although one could make the case that development as a concept has taken place for as long as humans have inhabited the earth (Smillie, 2000 p4), it is not appropriate within the confines of this study to conduct an exhaustive study into its origins. A limited study of the literature has identified that the discipline of development has itself been a series of developments since its inception in the early nineteenth century, at the same time and from the same roots as the emergence of sociology. “Sociology developed and thus created ‘development’ as a science which could bring about order in this suddenly changing and confusing world” (Cowen and Shenton, 1996 p6).

Corbridge, in his reader on development studies described early development activity,

> In the first part of the [20th] century most discussions on the world’s poorer regions and countries were structured by an enduring mixture of environmental determinism and social Darwinism. Colonialism was a necessary consequence of this division between rich and poor, temperate and tropical, able and less able. It was a white man's burden to look after and slowly improve the native populations of Africa, Asia, Latin America and the Pacific (Corbridge, 1995 p1).

Definitions of development are numerous and often seemingly contradictory “Alternative meanings of development are hotly contested” (Thomas, 2000b p3). Cowen and Shenton express the confusion caused by these definitions, highlighting the tension between the development goals of a state and those of organisations that attempt to address problems at a grass roots level. They conclude with the assertion that “development defies definition… because of the difficulty of making the intent to develop consistent with the immanent development” (Cowen and Shenton, 1996 p3).
After the Second World War

Most schools of development thought would agree that ‘modern development’ began in the second half of the twentieth century. Corbridge calls the events before this period the “prehistory of development”, thus suggesting a distinction between development activity before and after the middle of the century (Corbridge, 1995 p1).

Some would be more specific; Gustavo Esteva stated that development as it is now understood began on the 20th January 1949 with the inauguration speech of Harry F. Truman, President of the United States of America. Esteva asserts that this speech encapsulated initiatives that were part of a concerted effort to establish the supremacy of the United States of America, quoting from Truman’s speech in which he first introduced the concept of ‘underdevelopment’ (Esteva, 1992 p6).

Esteva highlights the following passages of the speech as encapsulating the interventionist approach he discussed:

- We must embark on a bold new programme for making the benefits of our scientific advances and industrial processes available for the improvement and growth of underdeveloped areas [And later]. Greater production is key to prosperity and peace. And the key to great production is a wider and more vigorous application of modern scientific and technical knowledge (Truman, 1949 p275).

He described the speech as:

- A political and philosophical proposition of Marx, packaged American-style as a struggle against communism and at the service of the hegemonic design of the United States, succeeded in permeating both the popular and intellectual mind for the rest of the century (Esteva, 1992 p6).

He proposed that at that moment, two centuries of meaning surrounding the concept of development were usurped and two billion people became ‘underdeveloped’.

- In a real sense from that time on they ceased being what they were in all their diversity and were transmogrified into an inverted mirror of others’ reality: a mirror that belittles them and sends them off to the end of the queue… (p7).

Esteva is not asserting that development began in 1949, but that the concept of development, which had evolved over the previous two hundred years, had been changed overnight. “Since then development has connoted at least one thing: to escape from the undignified condition called underdeveloped” (Esteva, 1992 p7).
The period since Truman’s speech is particularly relevant to this study, as a number of the American trade initiatives of the period were founded on the proposition that design had a part to play in economic development (Er and Langrish, 1992 p2).

Gronemeyer, a German social philosopher, teacher and author of ‘A Theory of Needs as a Theory of Power’, supports this argument of American hegemony by contrasting the two plans that were proposed for the re-construction of Europe following the Second World War. These were the ‘Morgenthau’ plan, which President T. Roosevelt and UK Prime Minister W. Churchill favoured in 1944 and the ‘Marshal’ plan, which was implemented in 1948. The fundamental difference between the two was that the ‘Morgenthau’ plan proposed to reverse the development of Germany into an agrarian state, whereas the authors of the ‘Marshal’ plan realised that the aid given to Europe would help the reorientation of American industry back to a peacetime economy, thus displaying a clear dual agenda. “Only a recovered industrial Europe could create sufficient demand for goods made in the USA. On the other hand, the aid programme confirmed America in the role of the leading nation in the ‘Free World’ (Gronemeyer, 1992 p62).

Thomas, commenting on development in the period since Truman’s inauguration speech, highlights that what is seen as the ‘era of development’ (since 1949) was also the era of the Cold War. The two superpowers, the USA and the USSR, vied with each other for influence over the newly independent ex-colonial countries of the South.” He went on to say that “…to Truman, development was only part of a strategy for the containment of communism (Thomas, 2000a p777).

It was in this context that the concept of the ‘Third World’ was born. Thomas notes that it was originally conceived as “…a positive alternative to identification with poverty or underdevelopment” (Thomas, 2000b p6). Essentially, this was a search by those countries for a different approach from the first world of capitalism or the second world of communism. The movement became known as the Non Aligned Movement and in its inception in the 1950s, it was spearheaded by leaders such as Gamal Abdel Nasser of Egypt, Josip Broz Tito of Yugoslavia and Jawaharlal Nehru of India (Black, 2002 p15). Since the collapse of the Soviet Union the situation has changed, leaving the USA as the sole super power. “One of the two ‘camps’ that previously polarised the world effectively disappeared” (Thomas, 2000b p8). Thomas suggested that as a result of this, the notion emerged that liberal capitalism was the only basis for development. This position, although
Chapter 3 Section 3.2 Learning from Development Theory 3.2.2.

not without its detractors, has nevertheless remained strong. The liberal capitalist economic model is commonly seen as one of the prime driving forces behind the phenomenon of globalisation, which will be discussed later in the section.

Cowen and Shenton, exploring the roots of the modern idea of development, called into question the assertion that development was invented in 1949. They suggest that development was “invented amidst the throes of early industrial capitalism in Europe” (p5). Here they contrast the terms `progress’ and `development’, which are often linked. They suggested that it was hoped that development would provide the means to compensate for the results of industrial and economic progress in Europe. “It was here that development was meant to construct order out of the social disorders of rapid urban migration, poverty and unemployment.” (p5). They went on to suggest that “…development may be used to ameliorate the disordered faults of progress” (Cowen and Shenton, 1996 p7). This statement has been taken by Thomas, amongst others, as being a helpful definition of development in the current context. “Development has always been an ambiguous idea, on the one hand being virtually synonymous with progress and on the other referring to intentional efforts to ameliorate the disordered faults of progress” (Thomas, 2000a p774).

In terms of a concept which was named ‘development’, Cowen and Shenton would put its birth as early as 1937, towards the end of the British colonial era, quoting the then governor of Nigeria who, when addressing the Royal Empire Society, stated “The exploitation theory … is dead and development has taken its place” (p7). However, they concurred with the sense of Esteva’s statement that development in the years following the Second World War served the purposes of the United States of America in their task of realigning their manufacturing base to peacetime production (Cowen and Shenton, 1996 p8). Black, although discussing the influences of philosophers such as Adam Smith, Marx and Hegel on development as a concept, clearly concurred with Esteva, stating, “For all practical purposes the idea in its modern guise came from President Truman on the 20th January 1949” (Black, 2002 p15).

Thomas, however, suggested that what these authors are referring to is “intentional development or development as practice” (p755), rather than the start of development. He went on to suggest that rather than simplistically laying the blame at the door of President Truman, it is more accurate to say that these practices have been in evidence by the global
powers since the early part of the nineteenth century. “Development has to be analysed in relation to capitalism…and the history of development should be viewed over the whole period of the domination of the industrial capitalist system” (Thomas, 2000a p777).

- **The development mainstream**

  In the years following the Second World War, international bodies such as the World Bank and the UN, began to address some of the problems of the developing world (Elwood, 2001 p28). These institutions, created at or as a result of the Bretton Woods conference in 1944, were charged with the development of what was then termed the third world. As Smillie explained, this period was characterised by theories of economic growth influenced by economists such as John Maynard Keynes. The initiatives that resulted from these events were founded on the idea that if a country’s economy and infrastructure was developed, then as a matter of course the wealth generated would ‘trickle down’ to the poor masses. These institutions and the economic growth theories associated with them formed the mainstream of development activity. US President John F Kennedy stated in 1960 “growth like a rising tide will float all boats” (Kennedy, 1960). The concept of ‘trickle down’ held sway until the mid 1970s when research began to point to the fact that growth on its own was not sufficient to reduce poverty (Smillie, 2000 p35). However, an analysis of the actions of many of the development institutions and government development departments show that even today, it is still possible to detect a bias towards a top-down mode of operation (Sheth, 1997 p 333).

  In 1973, as he entered his second term as the President of the World Bank, Robert McNamara stated that “Despite a decade of unprecedented increase in the gross national product of developing countries, the poorest segment of their population have received relatively little benefit. They are suffering poverty in the absolute sense” (McNamara, 1973 p10). This statement by a key figure in the World Bank, delivered in its first meeting on African soil, prompted a process of exploration and evaluation into the causes of development failure. According to Majid Rahnema, the result of this process of evaluation by the development establishment resulted in the conclusion that, “Whenever people were locally involved and actively participating in the projects much more was achieved with much less” (Rahnema, 1997 p117).

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57 In July 1944 representatives from forty-four nations met in the New England village of Bretton Woods (USA) with the aim of constructing a “new framework for the post war global economy” (Elwood, 2002 p27).
## The main views of development in the period since the Second World War

<table>
<thead>
<tr>
<th>Vision: desirable ‘developed’ state</th>
<th>Theory of social change</th>
<th>Role of ‘development’</th>
<th>Agents of development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal capitalism (modern industrial society and liberal democracy) (Plus achieving basic social/environmental goals)</td>
<td>Internal dynamic of capitalism</td>
<td>Imminent process within capitalism</td>
<td>Individual entrepreneurs</td>
</tr>
<tr>
<td>Development of capitalism</td>
<td>Development <em>alongside</em> capitalism</td>
<td>To ‘ameliorate the disordered faults of [capitalist] progress’</td>
<td>Development agencies or trustees of development (state, NGOs, international organizations)</td>
</tr>
<tr>
<td>Neo-Liberalism</td>
<td>Interventionism</td>
<td>Need to remove ‘barriers’ to modernization.</td>
<td>Collective action (generally through the state)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change can be deliberately directed</td>
<td>Individuals, social movements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Struggle between classes (and other interests)</td>
<td>Development agencies</td>
</tr>
<tr>
<td></td>
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<td>[not clear]</td>
<td>[not clear]</td>
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<td>[not clear]</td>
<td>[not clear]</td>
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<tr>
<td></td>
<td></td>
<td>Process of individual and group empowerment</td>
<td>A ‘hoax’ which strengthened US hegemony</td>
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<tr>
<td></td>
<td></td>
<td>Comprehensive planning/transformation of society</td>
<td></td>
</tr>
<tr>
<td>Development against capitalism</td>
<td>Structuralism</td>
<td>‘Alternative’ (people-centred) development</td>
<td></td>
</tr>
<tr>
<td>Rejection of Development</td>
<td>‘Post-Development’</td>
<td>All people and groups realise their potential</td>
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<tr>
<td></td>
<td></td>
<td>[‘development’ is not desirable]</td>
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</table>

Modern industrial society (but not capitalist)

<table>
<thead>
<tr>
<th>Market efficiency</th>
<th>Governing the Market</th>
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**Market efficiency**

<table>
<thead>
<tr>
<th>Governing the Market</th>
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**Governing the Market**

### Table 4

The main views of development in the period since the Second World War, taken from, Thomas, 2000b, p43.
Table 4 (p114), first published in ‘Poverty and Development in the 21st Century’ (Thomas, 2000b p43), describes the main views of development in the period since the Second World War. In his commentary on this, Thomas suggests that it illustrates the reaction against development founded on capitalist principles and charts a move towards grass roots, people-centred development models. The table provides a useful chronological picture of the way in which development approaches have changed in this period, charting the main factors and motivations underpinning them. It also illustrates the position Thomas expresses in a later paper, that both the people-centred development and the post-development schools were at the time not clearly theorised (Thomas, 2000a p786).

Reinforcing the importance of people-centred development as opposed to top-down development interventions, Sillitoe suggests that,

Development has failed to deliver on many of its promises to nations … Even worse, it stands accused of sometimes making matters worse, particularly for the poorest of the poor. The policies imposed from above by international agencies and central governments have been sadly at variance with the needs and aspirations of ordinary people. The development ‘industry’, concerned at evidence of the damage inflicted by its well intentioned actions, has been searching for sometime past for alternative approaches (Sillitoe, 2000 p246).

The emerging picture is one of a distrust of large-scale development by activists and theorists alike, with growing evidence that this is divorced from the needs of people at grass roots level. As Sillitoe suggested, alternative approaches have been sought but, as Thomas reminds us, all such activity needs to be seen in the context of an overarching liberal capitalist economic context:

Since liberal capitalism is accepted as the dominant mode of social organisation and the basis for globalisation, it can be argued that development is now thought of mostly in terms of ameliorating the problems rather than searching for alternative models of wholesale social transformation. The importance of seeking an alternative remains, but it is not manifest in the activities of any major development agencies (Thomas, 2000b p10).

- **Globalisation**

According to Elwood writing in 2001, globalisation is a new name for an old idea, which describes a process that has existed for centuries. Ever since the beginnings of the first European colonies there has been transfer of ideas, commodities, people and capital between countries on a global scale. However, he emphasised the fact that in the past twenty-five to thirty years, mainly due to the growth of technology, reduction in transport costs, developments in communications, removal of trade barriers and the expansion of
multinational corporations, the impact of this process has grown exponentially (Elwood, 2001 p12). Alongside the fact that this is both an old and new idea, it is also seen as both a good and bad thing. In 2000, the UK Government Department for International Development (DFID) suggested that globalisation can be made to work for the poor (DFID, 2000 p1) and Kothari suggested that it is being offered to humankind “as a new Utopia” (Kothari, 1997 p150).

Elwood discussed this potential for good and outlines the arguments for the benefits of the free market as a driver for progress, bringing with it cross-cultural understanding resulting in a borderless world “…where political parochialisms are put aside in a new pact of shared universal humanity”, but he went on to say that despite this promise, “…the current free market model is eroding both democracy and equity. Gaps between rich and poor are widening, decision making is concentrated in fewer and fewer hands, local cultures are wiped out, biological diversity is destroyed, regional tensions are increasing and the environment is nearing the point of collapse”. He concluded by stating that the opportunity provided by globalisation has been missed, bringing instead a reality of even greater need and marginalisation (Elwood, 2001 p11).

The benefits of global communications via the internet and television are already significant58. This same communication however, as Childers put it, propagates “The alluringly provocative myth of the affluent urban consumer life” (Childers, 1994 p23). Esteva and Prakash also pointed to certain benefits of globalisation, which have been used by local groups in actions against the practices of trans-national companies. Examples of these actions are the use of the internet and email to spread information and to organise protests, boycotts and demonstrations against such companies and their products. Technology and global communications were used to help build support for their cause and to challenge the global brands of these companies. The results of these actions have been the subject of international news, with coalitions of like-minded groups organising boycotts of major brands and large-scale protests at events such as the World Trade

58 An example of this is the Southlinks project. Southlinks is an initiative of United Nations Volunteers aimed at stimulating the sharing of information among community groups, especially, but not exclusively, those who deal with technologies and resource management. In the context of this project, information must be immediately "useful for action"; it should aim at making replicable an experience or a technology and have at its original source the actions of practitioners at the community level. For more information see: http://www.africa.upenn.edu/E_Mail/Southlinks.html - retrieved 10.4.12
Organisation summits (Esteva and Prakash, 1997 p288). Globalisation seems therefore, to be a thing of contrasts, new and old, good and bad. For the marginalised poor the negative effects of global competition in the marketplace seem at the moment to outweigh the potential good of a free market.

- **Sustainable development**

  The concept of sustainable development is relatively new in development theory. According to Kirkby *et al*, the phrase was coined in 1980 in a document on World Conservation Strategy, but he went on to say that the key statement on sustainable development was produced in a World Commission on Environment and Development (WCED) report ‘Our Common Future’ seven years later. The then prime minister of Norway, Go Harlem Bruntland chaired the commission, which produced the report (Kirkby *et al.*, 1995 58 p1). The resultant report commonly known as the ‘Bruntland Report’, contained a definition of sustainable development that has been almost universally adopted, “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987 p1). Kirkby *et al* suggested that there are over seventy current definitions of sustainable development but “the most widely quoted definition and effectively the official one is that of Bruntland” (1995 p1).

  The term sustainable development is used to represent a broad set of ideas including social, economic, cultural and ecological factors. In this thesis I have focussed largely on training and its effect on the economic sustainability of an enterprise. However, it is equally important to consider the impact of enterprise activity on the environment, such as the sustainability of local resources, or pollutants resulting from making activities, how change in an enterprise affects the balance of the local economy and how such changes influence the local community. These issues will be discussed later in the thesis in the context of the field research.

  Taking as his base line the widely accepted definition offered by the Bruntland commission, Kirkby pointed out that at its root, sustainable development is focussed on “…a strong people-centred ethical stance, concentrating on the satisfaction of human needs rather than, for example, on protection of the environment in general” (Kirkby *et al.*, 1995 p2).
This position is reinforced by Thomas who stated

Throughout the 1990s there has been a growing consensus on the need to look more closely at the potential for local groups and individuals to be involved as their own development agents, if only because of the manifest failure of the main theoretical perspectives on development to deliver major improvements to the living conditions of the world’s poorest individuals and communities (Thomas, 2000a p782).

The impact of development activities on people are, therefore, key issues when considering the sustainability of a development intervention. These concepts reinforced the move towards people-centred developments discussed in the next section and became important in informing the design of this project.

**People-centred development**

As described earlier in the section entitled ‘The development mainstream’ (p111), the process of moving away from large-scale structural approaches to alternative development strategies began in the early 1970s but is still continuing to the present day. Thomas highlighted this reaction to dominant development, describing a vision of ‘authentic’ development set out by Korten and others as ‘people-centred’ development, “…not just combating or ameliorating poverty but restoring or enhancing basic human capabilities and freedoms” (Thomas, 2000a p783). Here, he introduces the idea that people-centred development has the potential for greater sustainable benefits for the communities concerned than more traditional top-down development strategies.

In September 2000, the General Assembly of the United Nations adopted the Millennium Declaration. As a result of this declaration, eight development goals were set a target date of 2015 (UN, 2000 p1). These goals, now known as the Millennium Development Goals (MDGs), have become the focus of the development initiatives of all the member states and major development organisations. Kofi Annan, the then Secretary General of the UN, described the adoption as “…an unprecedented promise by world leaders”. The goals have now become one of the main foci of development effort.

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59 People-centred or user-centred design has been a key focus in the design community since the 1960s; Buckminster Fuller, JC Jones and V Papanek were all keen proponents of this approach. The approach was also informed by the emergence of the discipline of ergonomics during the Second World War which emphasised the man-machine (product) interface.

60 The eight Millennium Development Goals (MDGs) – which range from halving extreme poverty to halting the spread of HIV/AIDS and providing universal primary education, all by the target date of 2015, form a blueprint agreed to by all the world’s countries and all the world’s leading development institutions. They have galvanized unprecedented efforts to meet the needs of the world’s poorest. For more information see http://www.un.org/millenniumgoals/ - retrieved 10.4.12
Although the eight goals are general statements, the majority of them are focussed towards people-centred development on issues like education, gender equality, child mortality and health (UN, 2005 p3).

### 3.2.3 Participatory development

Participatory development approaches describe ways of approaching, designing and facilitating development projects. There is evidence of this type of approach to development in the 1940s and 1950s in early work in colonial community development (Hickey and Mohan, 2004 p6). However, the theoretical roots of the techniques now recognised as participation, as Chambers states, are rooted in early rural appraisal techniques. Some of the methods were taken from social anthropology and others grew during the late 1970s and early 1980s out of agricultural development initiatives in Southeast Asia (Chambers, 2002b p3).

In his book ‘Rural Development: putting the last first’, Chambers outlined the origins of the family of approaches, highlighting the need for techniques to help outsiders to get beyond the obvious and access the reality of a development situation, as perceived by the local people “…to try to avoid…incompetent rural development tourism” (Chambers, 1983 p199). The aim of such approaches is to gain accurate information about the real needs of people as cost-effectively as possible. Sustainability is a key feature of this type of development approach, by placing the expressed needs of the local population at the core of the development process, where there is more likelihood of ownership by these people and continued support of agreed development goals.

Early forms of these techniques were called Rapid Rural Appraisal (RRA). Following this, the ‘Rapid’ element was dropped and the term Participatory Rural Appraisal (PRA) has been more commonly used. The rural element of this term has remained, but the techniques have also been used in many non-rural situations.
The word ‘appraisal’ gives an indication of the original purpose of the techniques to gather information. A briefing document from the Institute of Development Studies (IDS) at the University of Sussex, described Participatory Rural Appraisal (PRA) as:

…a family of approaches, methods and behaviours that enable people to express and analyse the realities of their lives and conditions, to plan themselves what action to take, and to monitor and evaluate the results. Its methods have evolved from Rapid Rural Appraisal RRA. The difference is that PRA emphasised processes which empower local people, whereas RRA is mainly seen as a means for outsiders to gather information (Chambers, 1999 p1).

In recent years, the term Participatory Learning and Action (PLA) has been coined to describe a more mutual approach to development and the utilisation of such techniques in the broader context of development (Chambers, 2002b p1).

- **Broad acceptance of participatory approaches**
  Participatory approaches have now become part of mainstream development practice. Part of the reason for this broad acceptance has been the increase of non-governmental organisations (NGOs) as a major force in development activity. According to Rahnema, the initial impetus behind the growth of participatory activity in NGOs was largely fuelled by a distrust at a grass roots level of large-scale development activity to tangibly affect the people it aims to reach (Rahnema, 1992 p117).

Joseph Stiglitz, the former Senior Vice President and Chief Economist of the World Bank, Nobel Prize winner for economics 2001 and now a professor of economics and finance at Colombia University, demonstrated in a paper this broad acceptance of participatory approaches in development, advocating the use of participatory approaches to development. He suggested that

…an understanding of the centrality of open, transparent and participatory processes in sustainable development helps us to design policies, strategies and processes that are more likely to lead to long-term economic growth and that reinforce the strengths of the processes themselves (Stigliz, 2002 p164).

However, it is important to note the apparent contradiction in the fact that at the same time as highlighting the importance of participatory approaches to development, Stiglitz also emphasised economic growth, a concept which has at its heart the implicit assumption of top-down development.
As mentioned previously, early participatory development approaches were motivated by gathering or extracting information about a given population for the purposes of designing an appropriate development intervention. Reading from left to right, Table 5 (below) shows how participatory approaches have developed over time to be more responsive to the needs of the local population, becoming less extractive and engaging in a longer-term relationship with the local population. It is important to note the inverse relationship between the benefit to the agency versus the benefit to the community. It would therefore suggest that as participatory approaches have developed, they have been less concerned with extractive research activities and more concerned with empowering self-development of local communities.

<table>
<thead>
<tr>
<th>The evolution of participatory development</th>
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<tbody>
<tr>
<td><strong>Acronym</strong></td>
</tr>
<tr>
<td>Name</td>
</tr>
<tr>
<td><strong>Primary Purpose</strong></td>
</tr>
<tr>
<td><strong>Timeframe (involvement of outsiders)</strong></td>
</tr>
<tr>
<td>Benefit to outside agency</td>
</tr>
<tr>
<td>Benefit to community members</td>
</tr>
<tr>
<td>Benefit to outside agency</td>
</tr>
<tr>
<td>Benefit to community members</td>
</tr>
</tbody>
</table>

* Low level of benefit ** medium level of benefit *** high level of benefit

**Table. 5 The evolution of participatory development, taken from, Shah et al., 1999 p F-ii.**

**Relevance to this research**

Chambers suggested, “PRA is about empowering” and went on to say that other researchers were starting to use the same initials PRA to stand for Participatory Reflection and Action, as it espouses the values of self-critical awareness as well as coupling responsible action to the gathering of information.

We are not teachers or transferers of technology, but instead convenors, catalysts and facilitators. We have to unlearn, and put our knowledge, ideas and categories in second place. Our role is to enable local people to do their own investigations, analysis, presentations, planning and action, to own the outcome, and teach us sharing their knowledge. We ‘hand over the stick’ and facilitate…They do many of the things we thought only we could do (Chambers, 1999 p2).
This quotation highlights the core values of empowerment, self-development, and local ownership of an intervention, taking time and making a commitment to a development situation for a considerable length of time. These values are the reason why this type of development theory was selected to inform this research project. These values are also illustrated in Table 5, where Shah et al. explained the difference between the various participatory approaches, illustrating the extended commitment expressed in PLA.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>PRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Participatory Reflection and Action.</td>
</tr>
<tr>
<td>Primary Purpose</td>
<td>To facilitate investigations by local people building towards the empowerment of locally initiated sustainable initiatives</td>
</tr>
<tr>
<td>Timeframe (involvement of outsiders)</td>
<td>Longer term Building of relationships On-going commitment</td>
</tr>
<tr>
<td>Benefit to outside agency</td>
<td>*</td>
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<tr>
<td>Benefit to community members</td>
<td>***</td>
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</tbody>
</table>

* low level of benefit ** medium level of benefit *** high level of benefit

Table 6 Participatory reflection and action

Table 6, following the format of Table 5, illustrates the role of Participatory Reflection and Action (PRA), which was the specific participatory approach chosen for the fieldwork element of this research project. It is important to note that the acronym PRA is used in three different ways in these two tables, indicating and reflecting the organic nature of the development of theory in this area of development in practice.

From the early stages of the project, it was envisaged that the research would have an element of field research. As the project progressed, it was decided that this field research should take the form of a long-term immersion in the context in which the identified crafts groups lived and worked. It was therefore necessary to identify appropriate development approaches which would suit the longer time-scales of the fieldwork. As shown in Tables 4 and 5, participatory approaches such as PRA and PLA are designed to operate over longer time-scales, facilitating development activity which is based on building relationships, whereas approaches like RRA are designed to work over shorter periods in the field. It was therefore appropriate to use PRA and RRA theory to inform the intervention strategies developed for the fieldwork stage of the project.
Chapter 3 Section 3.2 Learning from Development Theory 3.2.3

Another factor that influenced the selection of participatory approaches was the similarities in some of the techniques to certain practices in design. Mind mapping, large-scale drawing and group ideas generation are participatory and are all well-established aspects of design practice. Indeed, some of the process diagrams follow similar conventions to the way the design process is expressed (Chambers, 1993 p17).

- **Self-reflection**
  
  One of the fundamental innovations and benefits that participatory approaches bring to development practice is the importance of the attitude and self-reflection of the facilitator. Chambers is one of the leading voices in this aspect, which is illustrated in the titles of his various publications, ‘Whose reality counts?’ ‘Whose Knowledge Counts?’ (Chambers, 1997, Chambers, 2000). This quotation from Chambers’ book ‘Rural Development: putting the last first’ encapsulated this emphasis.

  There is no complete escape from the way outsiders project their ideologies and values into analysis and prescription, but at least we have identified two antidotes: first repeatedly to enquire and reflect upon what poor people themselves want; and second to return again and again to examples of the unacceptable, and to analyze these, rather than theoretical abstractions. A continuous enterprise of seeking to learn from the rural poor and of exercising imagination in seeing what to do is one way of setting directions and correcting course. Without this, outsiders’ interventions are all too easily propelled by paternalism in directions which leave people worse off in their own eyes than they were before (Chambers, 1983 p146).

  This reflective approach is explored further in Chapter 2 (2.4.3) where a cyclical reflective experimentation model is developed and illustrated as a research method.

- **Critics of participatory approaches**
  
  Participation as an approach has its critics but it is important to recognise that some of its fiercest critiques have resulted from those who practise participatory approaches and want to help to improve them.

  An example of this is a list of concerns about the dangers and abuses of participatory approaches included by Chambers in a recent version of his PLA notes for students at IDS. He focussed on the attitudes of the facilitator such as “Using the label without the substance - rushing and dominating in the field or failing to put behaviour and attitudes before methods” and then discussed other concerns prompted by donor organisations who have attempted to rush both training and implementation of participatory approaches (Chambers, 2002b p5).
In the preface to a book on cultural dimensions of development and indigenous knowledge (Brokensha et al., 1995), Chambers discussed the changes in attitudes in the development community towards including the priorities of local populations in planning their own development, suggesting that the “balance of rhetoric has shifted” in favour of “learning from and with rural people”.

He went on to say, however, that

…the reality has changed less than the rhetoric. The awareness, attitudes and behaviours of many development practitioners have changed less than the language they have learnt to use. Many have acquired the skill of using words like ‘participation’ and even ‘empowerment’ but without changing the way they see poor people or even the way development should be undertaken (Chambers and Richards, 1995 pxiii).

Gill, a long time user and innovator of participatory approaches, suggested that in his experience participatory exercises, which had been seen to work in one context, were being uncritically applied to other contexts without reference to local culture, thus making them unintelligible. He pointed to the widespread use of ‘pie’ charts as a means of exploring and discussing issues of ratios of land usage. In cultures and areas that don’t have equivalent ‘cake-like’ objects in their traditional diet that are sliced in a radial manner, as opposed to being torn like a roti or chapatti, the exercise becomes nonsensical and has to be adapted or even replaced (Gill, 1993 p2).

One important element of participatory approaches is their response to failure. ‘Failing forwards’ is a phrase that has become synonymous with participation but is one which Chambers borrowed from business management theory. This concept was first proposed by Tom Peters, the management theorist, in his book ‘Thriving on Chaos’ (Peters, 1989 p261). However, Chambers, in his development of PLA theory, has taken the concept and made it an integral part of the participatory ethos “…the history of development is littered with errors…the other side of the coin is that if we could learn from errors and avoid them in the future, ‘development’ would be transformed”(Chambers, 1997 p15).

Participatory approaches to development were themselves a reaction to the status quo in development practice. As Rahnema suggested, they grew out of a growing disenchantment by development activists, who believed that the failure of development projects were mainly because the people they targeted were not involved in the design of the projects (Rahnema, 1997 p117).
In his article entitled ‘The Last Temptation of Saint Development’, Rahnema suggested that participatory action is simply putting a human face on the existing patriarchal system.

He asks the question whether the changes are as different as they seem, …What the ‘change agents’ actually do is quite a disturbing question. Are they really embarking on a learning journey into the unknown, where everything has to be discovered? Or are they concerned more about finding the most appropriate participatory ways to convince the ‘uneducated’ of the merits of their own educated convictions? (p205).

He went on to comment on the dangers of empowerment, “When A considers it is essential for B to be empowered, A assumes not only that B has no power but that A has the secret formulae of a power to which B has to be initiated” (p215). He concluded by saying that in his view, participation fails because by definition it is designed to affect a change in the short term. True participation, he suggested, is undertaken on much longer time-scales, building relationships, becoming involved in communities and, above all, being “…critically self aware and yet passionately compassionate, by fully participating in the world, such a person becomes not only one’s own change agent but one who by the same token changes the world” (Rahnema, 1990 p223). Rahnema’s critique was true of early participatory approaches, but as discussed earlier, a process of reflection and critique by practitioners recognised the need to develop new approaches over longer timescales.

Rahnema offers an alternative definition of development, “that could leave them free to change the rules and the contents of change according to their own culturally defined ethics and aspirations” (Rahnema, 1997 p278). Far from suggesting that people should not engage with activity that improves other peoples’ lives, environments, potential and choices, Rahnema and others would simply like to see this de-linked from the political imperatives of the rich nations.

When discussing the possibilities offered by the end of development, he suggested it should “prompt everyone to begin the genuine work of self-knowledge and self-polishing, an exercise which enables us to listen more carefully to others…” (Rahnema, 1997 p278). This is reminiscent of a quotation Rahnema used in the same book by Lao Tzu, Tao Te Ching, “Wanting to reform the world without discovering one’s true self is like trying to cover the world in leather to avoid the pain of walking on stones and thorns. It’s much simpler to wear shoes” (Rahnema, 1997 p278).
In 2001, Bill Cook and Uma Kothari published an edited book entitled ‘Participation: the New Tyranny’. This book and its successor ‘Participation: from Tyranny to Transformation’, encapsulated the arguments against participatory development approaches. The first book followed on from a conference of the same name held in Manchester in 2000. The arguments that came from this process centred on the uncritical application of participatory techniques, which in their view had turned out to be manipulative or even harmful (p1). However, the editors recognised “the self critical epistemological awareness” embedded in participatory development practice, identifying Chambers as “an essential component” in emphasising and developing this facet of participatory practice (p5). Their recognition of this internal critique raises the difficulty of “…distinguishing where critiques from within the orthodoxy end and critiques of that orthodoxy per se begin…” (Cooke and Kothari, 2001 p7).

The book ‘Participation: from Tyranny to Transformation’ critically discusses the movement of participation from the “margins to the mainstream”. The authors accepted that there was evidence to suggest that in recent years, “participation has actually deepened and extended its role in development”, owing much to innovations by activists from developing countries (p3). The overall tenor of this second publication was to support improvement of the practice of participation rather than to argue that it should not be used. Two themes were identified and discussed in this book, as a response to the criticism that participatory techniques are “overly localist” and ignore the broader environment and the inequalities and injustices which emanate from there (Hickey and Mohan, 2004 p9). The first of these was the importance of a theoretical foundation for participatory approaches and the second, the need to consider the broader context when implementing participatory development interventions.

Their emphasis on the need for a theoretical foundation is explored by Bebbington, who emphasised the need to include a political economic dimension to the design of participatory strategies. He extended this to suggest that practitioners should consider the wider impact of their work at a grass roots level. He also emphasised that in what he described as a climate of lessening support for academic research in development, practitioners should not lose touch with theorists and vice versa (Bebbington, 2004 p280). Although the connection is not made, this responds to the challenge made by Thomas to develop a theoretical foundation for the practice (Thomas, 2000a p782).
Chapter 3 Section 3.2 Learning from Development Theory 3.2.3

Dialogue between the critics of participation, coupled with a strong tradition of internal self-criticism, appears to have strengthened and broadened the approaches, with recent publications offering a clear framework for appropriate practice (Chambers, 2005, Chambers, 2002a, Hickey and Mohan, 2004).

There is a broad agreement between the external critics of participation and the people who use such approaches, whom Cooke and Kathari would describe as being “within the orthodoxy”, that they, the users, are continuously reflecting and revising the underlying theory behind participation (Cooke and Kothari, 2001 p7).

There are two particular issues on which both groups agree; these are the opposition to rushed approaches and attempts to ‘scale up’ the techniques without concern for the degrading of the experience of the participants. Chambers himself described the “carpet bombing” of areas of Africa with PRA techniques and went on to describe village communities who had developed strategies to ‘head-off’ PRA ‘experts’ from entering their communities and conducting yet another exercise (Chambers, 2005 p131).

At present, the literature on participation does not seem to take account of the criticism that it has an overly local focus with too little thought given to the broader socio-economic and political context. This is a valid criticism, which was borne out of the fundamental principles of participation. These focus on the identification of local needs and the importance of the broader context and were considered in the design and implementation of the fieldwork element of this project (2.4.3 and 4.2.1).

In utilising participatory development approaches, one of the biggest challenges to the development and sustainable use of such techniques as described above, is the fact that participation has now become mainstreamed to the point where all agencies, both large and small, require development initiatives to ‘tick the box’ of participation without necessarily engaging with the underlying values (Chambers, 2005 p128).

- **Participation in design**
  In the broader field of design, participatory techniques are not new. They have been used in architecture for a number of years and have had a mixed reception. Lawrence discussed a number of examples of participatory design in architecture and suggested that a clear methodology for participation should be established to combat the accusation of
‘design puppetry’, where the appearance of designers meeting the needs of the user population is not necessarily reflected in reality (Lawrence, 1982 p128). However, in recent years there is evidence of projects in which these approaches have been used to good effect. In one example of a school in a post industrial area of South Wales, the process adopted and the resultant building were reported to have had a positive effect on the community and the building also generated a Sterling Prize nomination for the architect (Woods, 2000 p2, Young, 2000 p3).

In the area of technology and development, Platt, a doctoral researcher at the Open University, and Wilson advocated the use of Participatory Technology Development, a concept that was championed by ITDG in the early ‘90s. They argued that this type of approach would enable the broader social, cultural and economic context to be taken into account when planning a development intervention. They also argued that this approach facilitates active learning by “blurring the boundaries between ‘teacher’ (the intervener) and the learner” (Platt and Wilson, 1999 p399).

In the area of product design, although the term participatory design is not mentioned in the literature until the early 1980s, others were using the principles of participation in the design process much earlier. In the mid 1960s there was a significant piece of participatory design analysis and development undertaken at the Royal College of Art on general purpose hospital beds for the Kings Fund (Cousins, 1965 p53) and JC Jones, in his book ‘Design Methods’, advocated the importance of user involvement in the design process (Jones, 1970 p9)\textsuperscript{61}.

Papanek was probably the first designer to use the term ‘participation’ in a design publication and this may have been due to his involvement in the development field with UNESCO and others. He suggested that participatory techniques have been used to good effect in many disciplines such as medicine, law, planning and architecture, but that the design profession has “responded slowly if at all.” (Papanek, 1983a p5). Papanek gave examples of a number of key projects that experimented with the idea of user participation.

\textsuperscript{61} The Design Methods Movement, (from the late 1950s) and specifically Bruce Archer and the department of Design Research at the RCA (1960 -1985), made working with users and user needs a central principle in the evolving methodology (Coward, T personal communication 9\textsuperscript{th} June 2009).
He concluded by stating,

Participation in design is based on trust. Although most people are inexperienced in design and are not used to working with designers, the design profession must reach out and ease the way for dialogue. The task is difficult, but it is absolutely essential if design is not to bankrupt itself morally. Only in this way will the designer become a tool in the hands of the people (Papanek, 1983a p30).

He attributed the lack of response in the design profession to the fact that consumers have not forced the profession to behave in a participatory manner, which he suggested is largely due to the invisibility of the profession (Papanek, 1983a p5). In the years since this statement, one might suggest that the profession has become more visible, but the accessibility of the design process has improved little if at all, and it could be argued that the majority of designers would not identify with the idea of being “a tool in the hands of the people” (Papanek, 1983a p5).

Other authors discuss participatory design as a means of empowering crafts people and artisans to engage in design activity for themselves. Writing about non-professional design, Pacey discussed participation as a means of empowering ordinary people to design for themselves. He concluded by suggesting that design should “…enlarge its role, even beyond reaching down to help people who are presumed to be helpless, to include empowering the designer in everyone” (Pacey, 1992 p224).

Guimarães suggested that in development contexts

…the role of the designer may be that of an ‘enabler’ or a ‘catalyst’ co-operating with the small entrepreneurs to develop their own capacity and their own ideas, introducing new techniques, exchanging experiences and learning with the local innovators (Guimarães, 1995 p284).

Kogi, in a paper dealing with ergonomics in Small and Medium Enterprises (SMEs), particularly in the context of industrially developing countries, pointed to an increase in the role of participatory approaches both in western industry as well as in development contexts. He stated that these methods “…are characterised by their enabling methods that facilitate the local change process.” (Kogi, 1997 p1124).

Southwell suggested that participatory methods can be used to redress the imbalance in the relationship between designers and users, particularly in a development context (Southwell, 1997a p10).
Chapter 3 Section 3.2 Learning from Development Theory 3.2.4

She expanded on these ideas in another conference paper suggesting that “The opportunities for participatory design are currently only available in theory” (p15) and went on to say that “participatory processes in … design are emerging as alternatives to the dominant models and although there is revealing criticism of participatory processes in the literature, there is potential for good practice” (Southwell, 1999 p17).

It is therefore clear that although there is some evidence to support the use of participatory design approaches in development contexts, there are few examples of their application.

3.2.4 The post-development school

In order to provide a balanced picture of development it is important to consider the ‘post-development’ position, which is characterised by Corbridge as ‘anti-development’ (1995 p10). The writings of the post-development school, which address their critiques of development across a broad range, have served as a counterpoint in my reading of development theory, providing helpful prompts for reflection during preparation for entering the field and in the design of fieldwork exercises. In a number of articles, authors from the post-development school have commented on and criticised participatory approaches. These critiques have had a balancing effect on my view of the benefits and potential pitfalls of using such approaches in my fieldwork.

Alongside the established mainstream of thought in development theory, as with many other disciplines, there has long been a tradition of detractors commenting on and criticising this mainstream. Corbridge discussed the positive role of such dissidents, suggesting that the development discipline has always progressed through a series of phases and reactions to those phases (p11). He described it thus: “Anti-development ideas are at one end of a spectrum of ideas that challenge conventional perspectives on the purposes and practicalities of development.” (p10). He highlighted how some positions previously held by the ‘anti’ camp are now accepted by the mainstream, giving as an example the increasing acceptance that development and economic growth are not the same thing.

Compared with just ten years ago, there is less concern now with the merits and nature of capitalist growth strategies per se, and far more concern for the nature of local relationships between development and the environment, citizenship, gender issues, injustice, institutions and democracy (Corbridge, 1995 p10).
Thomas reinforced this view by suggesting that rather than pointing to an end of development, these anti-development positions are “…positions about development from a radical perspective” (Thomas, 2000b p21).

The current anti-development school would describe itself as holding a ‘post-development’ perspective, saying that development is dead, “the time is ripe to write its obituary” (Sachs, 1992 p1). They contended that the ‘age of development’ began with the invention of the concept of under-development.

The ‘Development Dictionary: A guide to Knowledge as Power’ edited by Wolfgang Sachs (1992), was perhaps the first comprehensive publication in which the views of writers from a post-development perspective were collected. Sachs described the book as an obituary to development and stated “The idea of development stands like a ruin in the intellectual landscape”. He went on to propose that, “It is time to dismantle this mental structure. The authors of this book consciously bid farewell to the defunct idea in order to clear minds for fresh discoveries” (Sachs, 1992 p1). Susan George, a development economist and author of ‘A Fate Worse Than Debt’ among other related titles, described the contributions as “…a powerful antidote to decades of brainwashing about development…” (George, 1992 p1).

Chambers, however, described the dictionary as an example of development literature which in general is out of touch with the principles of development practice that have been identified based on experience in the field. He also suggested that Sach’s image of development, as a ‘ruin in the intellectual landscape’ is no real ground for pessimism and in line with the participatory principle of ‘failing forwards’. He stated, “Much can grow on and out of a ruin. Past errors as well as achievements contribute to current learning” (Chambers, 1997 p9).

Rahnema, a writer from the post-development school, also discussed the end of development but pointed to it as an opportunity,

The end of development should not be seen as an end to the search for new possibilities of change… It should only mean that the binary, the mechanistic, the reductionist, the inhumane and the ultimately self-destructive approach to change is over. It should represent a call to the ‘good people’ everywhere to think and work together (Rahnema, 1997 p391).
Another example of the challenge posed by a post-development position was Gronemeyer’s critique on the concept of ‘Helping’ in which she proposed that “The times in which helping still helped certainly in the form of development assistance …are irrevocably past” (Gronemeyer, 1992 p53). She went on to look at the concept of helping throughout history and suggested that although the concept of altruistic help sparked by compassion was alive and well in our psyche in the west, supported by stories such as the ‘Good Samaritan’, the practical outworking of this concept has passed into history. She discussed the difference between need and the needy, the former defined by the sufferer and the latter defined by an external measure “One becomes needy on account of a diagnosis” (p66).

She even went as far as describing help as a form of control, describing it as ‘elegant power’, “…as a means of keeping the bit in the mouths of subordinates without letting them feel the power that is guiding them” (Gronemeyer, 1992 p53). This questioning of the dominant view of ‘helping’ in the context of development was a timely reminder during the design of fieldwork interventions to approach the field in a self-reflective and cautious manner.

In a paper on empowerment, Labonte discussed the difference between empowering and disempowering development practice. He illustrated the distinction by quoting a challenge to professionals made by Lilly Walker, an Australian aboriginal woman, “If you are here to help me then you are wasting your time. But if you come because your liberation is bound up with mine then let us begin” (Labonte, 1994 p258).

- **Intervention**

Intervention is a key issue in the post-development debate. Rahnema asked the question, “Who are we - who am I - to intervene in other peoples’ lives when we know so little about any life, including our own?” (1997 p395).

In 1942, Michael Cardew travelled to west Africa to provide expert input to the local ceramics industry. In hindsight, Cardew reflected, ”I did not relish the role of colonial exploiter; but then I did not believe that I was one” (p130). Having worked in the situation, he soon realised that, ”In the eyes of any intelligent African, he (the white man) is either a shameless exploiter or a paternalist do-gooder” (Cardew, 1988 p130).
Rahnema suggested that intervention should be considered very carefully. “Exceptional personal qualities are needed to prevent ‘well intentioned’ interventions producing results contrary to those planned - as has been the case in most ‘developmental’ and many ‘humanitarian’ instances.” (Rahnema, 1997 p397).

Thomas asserted that it is not necessarily the ‘what’ of intervention that causes the problem, it is the ‘how’ that poses the most difficult questions, "The main area of debate in mainstream development circles is …about the form and degree of intervention" (Thomas, 2000a p781).

Answers to these complex issues can be found by taking time and approaching the local context with humility; spending enough time in the community to begin to see priorities other than your own and to do this in a manner that seeks to minimise the potentially negative or at least distracting impact of an outsider on the community. This type of approach can help to promote a change that is focussed on locally-identified needs and facilitated in a manner that promotes sustainable self-development.

Sometimes it is easier to express what we do not want to do, rather than what we aim to do. This quotation from the poet Rabindranath Tagore describes the impact of non-participatory development from the perspective of those being developed. This illustrates a scenario I wanted to avoid and the reason why I chose to adopt participatory development approaches as the basis for fieldwork interventions.

We have for over a century been dragged by the preposterous West behind its chariot, choked by dust, deafened by noise, humbled by our own helplessness, and overwhelmed by the speed. If we ever ventured to ask ‘progress towards what, and progress for whom?,’ it was considered oriental to entertain such doubts about the absoluteness of progress (Tagore, 1941 p1).

**3.2.5 Enterprise development**

Enterprise development is a key area of development practice. It recognises that small enterprises in both the formal and informal sectors of the economy in developing countries require skills development to enable them to contribute efficiently to the development of the economy as a whole (Panitchpakdi, 2006 p1).

It is recognised, as Smillie suggests, that training and education is needed to develop these enterprises. “The relevance of education to the development of local technological
capacity, to national economic growth, to improved equity and to poverty reduction has been incontrovertibly demonstrated” (Smillie, 2000 p218).

In a 1991 World Bank policy paper on Technical and Vocational Education and Training (TVET), the need for developing countries to improve their productivity was emphasised; central to this was “…the level of competence of a country’s skilled workers”. The report went on to say that small-scale, on-the-job training can often be some of the most effective and efficient ways to improve the skills level of a given workforce (Middleton, 1991 p7).

In the Karnataka Human Development Report 2005 (the area of India where the field immersion took place), the state government recognised the importance of vocational education to equip trainees for employment. It also recognised that in the past such ventures had failed because of a lack of relevance to market needs, poorly trained teachers and an inflexible curriculum (Government of Karnataka, 2005 p125).

- **Education and training**

  Education and training has played an increasingly key role in development and is seen as an important aspect of development funding. Evidence of this is the DFID plan to increase its spending on educational aid from £150 million in 2001 to £1.4 billion in 2008 (DFID, 2005 p1). In addition to this, in July 2006 DFID pledged to spend £8.4 billion on a sector-wide approach to education in developing countries over the next ten years (DFID, 2006 p1).

  Other large donors such as the UN and the World Bank have also increased their emphasis on this area. Tilak, in a discussion paper for the World Bank in 1989, demonstrated in a detailed study that education is an important factor in the reduction of poverty in developing economies (Tilak, 1989 p92).

  As discussed previously, the Millennium Development Goals\(^{62}\) adopted by the UN focus on people-centred development and of the eight goals, numbers two and three specifically relate to education:

  \(^{62}\) Goal 1: Eradicate extreme poverty and hunger  
  Goal 2: Achieve universal primary education  
  Goal 3: Promote gender equality and empower women  
  Goal 4: Reduce child mortality  
  Goal 5: Improve maternal health  
  Goal 6: Combat HIV/AIDS, malaria and other diseases  
  Goal 7: Ensure environmental sustainability  
  Goal 8: Develop a Global Partnership for Development
Goal 2: Achieve universal primary education.

Goal 3: Promote gender equality and empower women: with a particular focus on the gender disparities in education.

(UN, 2005 p4).

- **Technical and vocational education and training (TVET)**

In terms of education and training to support enterprise development, Technical and Vocational Education and Training (TVET) is the term widely recognised in development that encompasses this area of activity. It is generally understood in terms of formal training targeted at the post-basic education sector, which seeks to equip workers for employment in the range of industry in a given region. In some cases, this means training for high-skilled jobs in engineering and manufacture, supporting, for example, an inward investment initiative by a foreign manufacturing company. At the other end of the spectrum, such activities may be focussed towards local skills at a smaller scale, such as metalworkers and fabricators or potters. This term, therefore, has a broad meaning and encompasses the type of activity undertaken in this project.

Koichro Matasuura, the Director General of the United Nations Educational Scientific and Cultural Organisation (UNESCO), emphasised the importance of TVET to the sustainable economic development of all nations. He recognised the need to re-orient TVET activities to the changing face of work and not simply concentrate on the building of technical skills for manufacture, but also to address the needs of the informal sector and the rural poor (Matsuura, 2004 p4). In a recent paper, DFID also emphasised the importance of vocational skill training to the overall socio-economic development of a country and in turn to the fulfilment of the MDGs (DFID, 2006 p2).

This approach is not without its detractors, although TVET is still seen as an important component in the development ‘toolbox’. Its detractors have often focussed on its relatively high cost compared with other forms of education and training. This is confirmed by Lewin in a report commissioned by DFID in 1993 (Lewin, 1993 p159).

In the same year, a report commissioned by the Overseas Development Administration (ODA) reinforced this point. The report investigated ways to reduce the cost of TVET. Its primary recommendation was to address efficiency via more accountability in staffing and
to address effectiveness with a range of measures from better planning to encouraging competition between institutions providing training (Gray et al., 1993 p26).

By way of an answer to the detractors of TVET, Smith and Yisa, in a paper to the Oxford International Conference on Education and Development in 2005, suggested that these perceived inefficiencies could well be put down to a gap between training and need. Rather than focussing on “highly specific vocational training” (p5), they went on to suggest that it might be better to focus training towards the needs of the informal sector, highlighting the need for skills development, and further suggested that rather than there being a clear and demonstrable link between basic education and poverty reduction, there was more evidence to suggest a link between skills development and poverty reduction (Smith and Yisa, 2005 p9).

The Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), an arm of the German Federal Ministry for Economic Cooperation and Development, has been involved in vocational education in the area of technical training for over forty-five years and has concentrated its efforts mainly on skills training.

They outlined two main approaches:
1. Basic and further training courses to meet the demands for skilled workers and managers.
2. Promotion programmes to target groups in the informal sector aimed at improving their incomes (p1).

Its approaches in the past have been similar in nature to western skill-based training, in preparing workers for mass manufacturing. In recent years, these approaches have been reappraised.

Precise directions and dogged directions have given way to greater leeway and more patience. The careful development of vocational training systems ….by and with our partners is to be seen as a gradual process, and must correspond to the options available and the customary procedures in the country in question (GTZ, 1993 p6).

It is also moving towards a transfer of emphasis from the provision of narrow technical vocational training programmes to offering a broader range of training approaches. This
broadening of approach reflected the sector’s move towards the support of the informal sector. In recent years, there has been an increasing focus on education and training for the informal sector. This shift in focus has been prompted by a number of factors. As King et al explained in a report commissioned by DFID, research suggested that in many developing countries, the number of school leavers is increasing, but little can be done to expand the job market in the formal sector and in some countries, the formal job market is actually shrinking (King et al., 1995 p1).

- The informal sector

In a paper to a conference addressing training in the informal sector, Wallenbourn, of the German Foundation for International Development, suggested that in developing countries “The majority of employment opportunities are found in agricultural production, the traditional crafts sector and the informal urban sector”. He went on to say, “…the principal concern is to ensure that everyone is equipped with those qualifications he or she needs at the workplace to guarantee a decent life” (p5).

Wallenbourn also suggested that vocational training for this sector is not held in the highest esteem: “A desire for the highest possible educational qualifications pushes vocational training to the position of second-best in many countries and regions of the world” (Wallenbourn, 2001 p9).

This position is supported by Kent and Mushi, who studied education and training for the informal sector in Tanzania “…the elitist culture promoted in secondary schools would further reinforce the negative views held by parents and pupils towards employment in the informal sector” (p100).

The authors concluded that,

… within the sector there exist raw materials, i.e. skilled artisans, who if properly assisted could play a significant role in future socio-economic development of the country. Many artisans have demonstrated their potential as innovators, trainers and entrepreneurs, but by their own admission they are constrained by a lack of knowledge.” (p103)

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63 Informal Sector: see glossary for definition, Appendix 1
They also note that in the artisans that were studied there was a high level of skill but a distinct lack of knowledge in the area of materials and processes (Kent and Mushi, 1995 p114). These findings in Tanzania contrast with the findings of Raza and Du Plessis in their studies of indigenous knowledge in India, where they found significant levels of in-depth knowledge in materials and processes in similar groups of artisans (Raza, 2001 p10). Such disparities in findings support the view that training needs to be targeted at local need. As Wallenbourn stated, “There is a need to take into account the different realities and sectoral disparities in the countries in the South by offering a broad range of [training] provision” (Wallenbourn, 2001 p5).

Wallenbourn presented his paper at the ‘International Conference Linking Work Skills and Knowledge: Learning for Survival and Growth,’ convened in Interlaken by the Swiss Agency for Development and Cooperation (SDC) in September 2001. The outcome of the conference was a declaration linking work, skills and knowledge. The focus of the declaration was the informal economy and the fundamental concern of the declaration was the need to address the area of skills acquisition, emphasising the understanding of skills in their broadest sense and underlining that “The pivotal role of non formal education in extending training to those that are excluded by formal education must be recognised and supported” (SDC, 2001 p3).

- **Rediscovering traditional training methods**

Grierson, in his book ‘Where There Is No Job’, pointed to a re-discovery of traditional apprenticeship methods in training in the informal sector in developing countries. The aim of the book was to explore “…the extent to which vocational training can be utilised selectively to support the creation and growth of micro enterprises that are viable businesses however modest in scale,” (Grierson, 1997 p2).

Kenneth King, in the introduction to Grierson’s book, welcomed his approach saying,

Any discussion of what training can and cannot do for job creation in the face of the enormous and increasing populations of many developing countries is very timely. Most existing vocational training systems - barring traditional apprenticeships and many forms of on-the-job training - are of questionable usefulness to those seeking self-employment (King, 1997 p4).

In his book “Skills for Life”, Frost compared a range of institutional responses to vocational training in development contexts and concluded that the political rhetoric supporting self-employment far outweighs the support on the ground by government and
that the elements in training most linked with success are work-based learning opportunities during training which are supplemented by follow-up activities after the students have completed their training (Frost, 1991 p123).

Poston, in his doctoral study, addressed problems associated with training for the informal metalwork sector in Zaire. He stressed the importance of parity between the equipment and environment of the training centre and that of the trainee’s workshops. He cited examples of artisans being trained in the use of electric hand tools in the training centre, only to return to their workshop where there was neither electricity nor power tools (Poston, 1994 p22).

In a paper discussing technology development, Platt explored the learning processes that took place in SMEs in Sri Lanka. Platt emphasised the human element and explored the idea that the development of technology in a given context is broader than issues of hardware selection, operation and maintenance. Essential complementary issues are the development of peoples, knowledge, skills and management, “Technology development therefore becomes about human resource development, where learning plays a key role.” (Platt and Wilson, 1999 p395). They proposed that training methods should be a dynamic blend of new technologies with traditional ones. They also proposed that this dynamism should extend to training methods whereby the trainee should play more of an active role in the process, arguing

… that a way forward is to move away from the passivity implied by ‘training’, where the trainer imparts and the trainee receives, to a more dynamic process where those employed in SMEs play an active role themselves. This implies a shift in emphasis from teaching (through training) to learning by those employed in SMEs (p397).

In terms of learning, Platt and Wilson’s investigations confirmed that, “Their major source of learning …is not obtained through formal means. Skills tend to be learned through what are described as ‘non-formal’ or ‘on the job’ experiences by observing and assisting other workers” (p398).

They suggested that this learning by doing “…can only be lubricated by a participatory approach” (p399). These conclusions were borne out by my initial experience in the field, observing the training and development practices of a range of artisans in both India and Sri Lanka (3.4.1). In the conclusion to the article, They suggested that an additional factor in the development of enterprises would be the facilitation of ‘trust’ relationships amongst entrepreneurs, which in turn would promote the sharing of information and maximise joint learning (Platt and Wilson, 1999 p400).
3.2.6 Design training

The focus of this research project is design training. One of the key questions about design training in development contexts is whether it is appropriate to the people and context in which it is being applied.

Design training and education in the west has a long history of evolutionary change from its early beginnings in crafts training to the present. In development contexts, this process has not generally taken place in the same manner. The tendency has been for formal didactic design training models to be borrowed from a western context and applied to development contexts. The term ‘western model of design education’ is used as shorthand for those educational models that are based on principles of design education developed in the west. The influence of western models of design education in India is well documented and is explored by Ranjan (2005) and Fernandez (2006).

In some cases, the borrowed western models have caused an alienation from local cultures and needs (Balaram, 1998 p58). However, attempts to engineer a situation where design education is suited to the local context can also cause problems, prompting reactions to perceived ‘dumbing down’ and the holding back of a country’s development. Southwell explored this, suggesting that design in the South is “trapped by the Oxfam catalogue syndrome”, where designers only engage with those goods which have a market in the west, condemning local crafts people to the endless manufacture of pastiche ‘ethno-tat’, dependent on the whims of a western market (Southwell, 1997a p1). In a number of developing countries such as India, South Africa, Brazil and Colombia, where there is a wide spectrum of development in the country from high-tech companies to village crafts people, there seems to be a case for both western model design education, as well as an approach focussed more at the grass roots.

- Western models

Until recently, the aim of the majority of design training and education activities in development contexts has been to establish formal design education programmes based on models developed in western schools. This activity has been supported by both individual governments as well as international bodies such as ICSID. NID in Ahmedabad, India is

64 The ICSID Educational Strategic Plan 1999-2005 stated in objective three that it aims to: Foster industrial design education in developing countries.
For more information see: www.icsid.org/EducationPlan1999-2001.html and (Popovic, 2001) - retrieved 10.4.12
perhaps the earliest example of this type of approach. According to both Khanna and Chatterjee, the curriculum and style of education was also modelled on the HfG, Ulm (Khanna, 1997 p2, Chatterjee, 1990 p179) and in the early years was staffed by Indian designers who were all trained in Europe (Soumitri, 2002 p9).

The use of a proven model is a sound strategy if there is a close fit between the aims, objectives and target market of the borrowed model and the environment into which it is introduced. As stated earlier, it is possible in post-independence India to make the case that both design for industrial manufacture and design for a more crafts-based economy were needed. Due to the aspirations of the early administrations of India following independence, the former western model was followed almost exclusively at the expense of the grass-roots based model.

However, as academics and practitioners have had the opportunity to look back over the first forty plus years of NID’s history, there have been a number of dissenting voices questioning the validity of a western-based model of design in the Indian context. Balaram suggested that such models cause a “brain drain” of these designers to the west (Balaram, 1998 p61); a concern that is also echoed by Papanek (1983b p61) and Chatterjee stated categorically that, “The original inspiration for bringing design to this land – to lift the quality of life for millions living at the margins of existence in villages and urban slums – remains virtually untouched” (1990 p179).

**Questioning the western model**

In the broader geographic context, the western model of design education comes under scrutiny. In her paper on design training in development contexts, Jacqueline Corlett highlighted the differences between the requirements of developing countries and those of post-industrial nations. She pointed out that, “it is neither feasible nor desirable to merely transplant skill specific design education from post industrial nations” and instead she proposed a more informal approach based on work-based training and participation (Corlett, 1997 p4).
Balaram echoed this theme describing an education system where

Selected young individuals are trained in foreign universities; foreign consultants are called in, to give training… and institutions are set up as ‘replicas’ of foreign institutions. [He went on to say that] Such training is not guided by the socio-cultural, economic and political conditions prevailing in the country. Such a system of training, once set up, is difficult to change because trainees from such a system police trainees of the same order for tomorrow, forming a vicious circle (p47).

He also commented that design educators all over the developing world are increasingly suggesting that western design education methods and practice do not fit with the cultural context in which they operate in the developing world (Balaram, 1998 p48).

As a solution to finding relevance within the local context, he highlighted three elements, the “Man”, the “Task” and the “Trainer”.

All of these three components exist in an environment which is socio-cultural, economic and political. Any training, which does not take this environment into account, will not be very relevant to people there. Yet this is exactly what is happening in many countries, particularly developing countries like India (Balaram, 1998 p48).

He proposed an alternative design training process, “Instead of ‘parroting’ borrowed design processes and education…it must be an appropriate process which fits the people, their cultural minds, their economic conditions, their own skills and their available resources.” (Balaram, 1998 p51).

This, he suggested, should follow a model of ‘training-trainers’, which has at its heart the core value of exponential growth.

In 1976 Nadkarni suggested that "the education-cum-training base should be as self reliant as possible by training local people who will subsequently train others" (Nadkarni, 1976 p26). The practice of training-trainers is one that is emphasised by a number of the authors already mentioned. The practice is based on the idea of minimising the long-term impact of external trainers and maximizing the impact of local trainers. Frost, in ‘Skills for Life’, emphasised its importance as a key factor in sustainable training interventions (Frost, 1991 p11). Poston, in his doctoral thesis, also notes the importance of training-trainers to promote what he describes as ‘autonomous propagation’ (Poston, 1991 p152).

In 1975, Papanek proposed another alternative. In a paper for ICSID Working Group IV: Developing Countries, he proposed that an international post-graduate design school be set
up for developing countries. At the time, it represented an alternative model of education in contrast to the then trend of training such design students in the west. One of the primary aims behind the proposal was to attempt to counter the ‘brain drain’ and cultural alienation of young designers from developing countries, which he saw as a worrying by-product of studying in the west. The two-year programme was outlined in some detail including the concern about cultural sensitivity of western designers as educators. According to Papanek the proposal was not acted upon, but seven years after writing he was still receiving enquiries about it from developing countries (Papanek, 1983b p61).

My experience of design education can be described as the ‘atelier model’, or as Swann puts it, a “Sitting with Nellie” approach, which relies on large amounts of time spent one to one or in small groups with an ‘expert’ tutor who demonstrates skills or discusses approaches from their expertise base (Swann, 2002 p50). This process mimics the traditional apprenticeship approach, where over time autonomy is transferred to the trainee. Over the years, this process has developed to meet the needs of students to be prepared to work in modern design practice. This type of approach was used as the basis for the first design training interventions, firstly because I could draw on my own experience as an educator, but also because it was a less didactic and more people-centred approach. The response to this strategy was then observed and reflected upon and developed as the fieldwork progressed.

- **Alternative models**

In the critical review phase of the research, a small number of design education and training programmes were identified that have attempted to address the needs of the informal sector in developing countries, providing design-training interventions to local artisans and crafts people. Examples of these are 'Design for Profit', 'Discovering Design' (Corlett, 1997 p3), the Diploma course of the `National Design Centre’, Sri Lanka and the training activities of the charity `Motivation’. These programmes are aimed at artisans and crafts workers, who are actively involved in producing items for sale or use predominantly for a local market and who would benefit from added input in the area of design. These projects are discussed in greater detail in the sections reporting on learning from practitioners (3.3.3) and observation and orientation (3.4.2). It is sufficient at this stage to note that each of the projects was focussed on enterprise development; each concluded that design training would have a positive effect on their target population of artisans or crafts people and each sought to pioneer new models of training in this context.
Chapter 3 Section 3.2 Learning from Development Theory 3.2.6

Over the course of this research project, it has become clear that the way design is seen in a western capitalist context is not necessarily the only way to view design and its impact on a given socio-economic situation in a developing country. In the conclusion to his doctoral theses Guimarães stated, “Professional design is not the only way to introduce design activity into small firms. A campaign aimed at making micro producers aware of the potential benefits of design for the business …is required” (p287)

He also proposed that technical training for artisans should have a design core and that further research into design training was of “fundamental importance” (Guimarães, 1995 p290).

- **Sustainability and propagation**

  The sustainability and development of an enterprise once an external intervention has been completed and the subsequent dissemination of that knowledge to other enterprises, are vital factors in the success or failure of an enterprise.

  The concept of sustainability in development is somewhat confused because of the environmental connotations. However, in this context it relates to the viability of an enterprise in the long term. Environmental issues are a part of this, but so are those of skills development, innovation, training, access to markets and capital to expand. Diego Masera studied the area of sustainable product development in his PhD completed in 1998 (Masera, 1998). He has also published a number of papers relating to the general area of design in development contexts. In a paper in ‘The Journal of Sustainable Product Design,’ he summarised the main concepts of his doctoral study and stated that, “The goal of sustainable product development becomes particularly relevant in the context of small enterprises in developing countries. These small enterprises are fundamental as they provide one of the few employment opportunities for local people” (Masera, 1999 p29).

  The propagation of an enterprise would be characterised by the ability of projects to survive and spread of their own accord rather than due to an external driver. Poston stated that “Unless an intervention is designed in all aspects from the beginning for the results to be free-standing and appropriate for autonomous propagation, the effort in comparison to the cost and the scale of the problem will be wasted” (Poston, 1994 pxii).
He concluded by saying,

To permit sustainability and autonomous propagation rural manufacturing developments must be incremental, must not demand great change or significant risk on the part of the practitioners and must involve a cost low enough to make them widely accessible and viable (Poston, 1994 p.126).

The term ‘autonomous propagation’ has been adopted from Poston in this project to describe the continuation of the learning and skills beyond the original training group to apprentices and other crafts people.

- **Innovation and risk**

Training is a key factor in facilitating an informed risk taking attitude necessary to enable crafts people to engage in the iteration and experimentation required to develop new products. As local attitudes to innovation and experimentation vary, training models need to explore locally appropriate ways to make risk taking acceptable to the risk taker. As the previous section discussed, once the local context is understood, the challenge is then to influence everyday practice in an on-going and sustainable manner.

Poston proposed that in order to survive and prosper, artisans and crafts people need to become flexible problem solvers (p39). Adaptation and innovation involves experimentation and risk, for which self-confidence is essential. As a means of addressing this, he advocated that the developmental steps in a training model should be taken in sufficiently small orders of magnitude so that each step represents an acceptable level of risk (Poston, 1994 p.xii).

There are other factors which affect innovation such as cultural tradition, the training system by which the artisans have learned their skills, and their self-confidence. One of the prime factors influencing the taking of innovative risks is the recognition of the need to do so. “Before innovation can become a regular feature of an artisan’s activity, the point where a surplus can be created must be reached and an awareness of the need to re-invest it in the activity must exist” (Poston, 1994 p33). The issue of ‘surplus’ raised by Poston was also taken up by Guille, when she discussed cash flow and access to finance. Unless crafts persons are able to make enough profit to enable them to invest in new product development they are very unlikely to experiment and innovate. In her study of crafts cooperatives in South Africa, Guille identified lack of cash flow and management experience as a significant cause of resistance to innovation. She pointed to an over-reliance on past successes because of the risk involved in new product development. One of the solutions,
she suggested, is the provision of open access workshops for the purpose of innovation in order to reduce the need for individual enterprises to risk capital in the purchase of machines they may not fully utilise (Guille and Wells 1997 p15).

Innovation can also be an alien concept to crafts people for a number of reasons. In an interview with Lalit K. Das, an Indian design educator working with artisans, he suggested that one of the reasons that innovation was an alien concept to many artisans in India was that the traditional methods of apprenticeship in the arts and crafts, which facilitated and fostered innovation and creativity, were lost during the colonial period. He illustrated his conclusion using evidence of historical artefacts showing fusions of artistic styles not native to India, demonstrating a creative ability and international awareness, which he felt was no longer evident in the crafts of India (L.K. Das, personal communication, 25th March 2002). Pacey concurs with this “…indigenous craft and other practices which were undermined by colonialism, …by regarding people themselves, their culture and their identity as a resource” (Pacey, 1992 p222).

Poston also explored other factors that limited innovation with a group of blacksmiths in Manie, Zaire. He suggested that a cultural aversion to risk taking was a prime factor. “Because the entire craft had been learned from their elders and is seen as coming from their ancestors, it was not based on analysis and experiment.” This situation was further exacerbated in the younger artisans by “a system of learning by rote” promoted by formal education (Poston, 1994 p34).

This latter manifestation of risk aversion was also observed in Indian artisans. In an interview with a designer working for Voluntary Service Overseas (VSO), who was involved in a design initiative targeted at the silk industry in Bihar, her experience was that a ‘fear of failure’ resulted in artisans being reluctant to be involved in innovation. This was again attributed to the didactic nature of formal education and its revered place in the culture of the country (C. Banks, personal communication, 22nd March 2002).

The impact of cultural attitudes to innovation was also highlighted in a discussion with a designer working with artisans in the South Pacific. She described cultural constraints on innovation. “In Vanuatu the so-called ‘Kastom right’ system, an indigenous version of copyright, keeps the artisan in order”. Serious consequences await the artisan who
transgresses this system and she went on to say, “In this atmosphere only the most courageous dare to take risks” (K. Reijonen, personal communication, 4th April 2002). It is clear from this discussion that risk is affected by a range of external factors. Initial findings from observations and pilot training interventions in the field suggest that if these external factors are limited, via the provisions of available material with which to experiment, or the provision of money to ‘buy-out’ time to be innovative, it is possible to provide a conducive environment where risk can be seen as a necessary element of the design process.
3.2.7 Findings:


2. Technical training with a design core is of fundamental importance to empower local artisans in new product development (Guimarães, 1995 p290).

3. The use of participatory development approaches (PDA) facilitate the identification of local priorities on which to base development interventions (Chambers, 1999 p1+2).


5. There are limitations to the participatory approach, which focus on the attitudes and preconceptions of the intervener (Rahnema, 1990 p223).

6. Placing oneself in a position to learn from local people is a helpful means of facilitating an effective development (Chambers, 1983 p146).

7. Exercises used in PDA are a helpful model on which to design training interventions (Southwell, 1999 p17).

8. Time is required to understand the development context and build relationships in order to make development interventions more sustainable in the long term (Chambers, 1983 p199, Rahnema, 1990 p223).

9. Training needs to take into account and utilise the existing materials and facilities available to the crafts people (Poston, 1994 p123).

10. Training interventions are more likely to be effective if they work with and support existing vocational training systems (King, 1997 p4).

11. Designers can be effective as an “enabler or catalyst” working alongside crafts people and helping them to develop their own capacity (Guimarães, 1995 p284).
12. It is easier for trainees to absorb and begin to adopt training if new learning is limited to small changes (Poston, 1994 pxii + p2).

13. Undertaking innovation is a risk for artisans, which needs to be taken into account when designing training interventions (Poston, 1994 p33).

14. Training interventions which are designed so that the participants are trained as trainers are likely to be more sustainable as they facilitate the autonomous propagation of the training (Balaram, 1998 p47, Poston, 1991 p152, Poston, 1994 pxii, Nadkarni, 1976 p26, Frost, 1991 p11).
3.3 Learning from practitioners

3.3.1 Introduction

Early in the literature review process, it became clear that although there was some published academic work that discussed the role of design and design education and training in a development context, little had been identified which reported on practical design interventions and projects. To address this gap between academic writing and practical knowledge, I decided to interview design practitioners with experience in the field.

A number of practitioners\textsuperscript{65} were identified from the literature; others were recommended by these authors. From this group, a series of seven interviews was conducted as a means of learning from people who had been involved in a practical way in the role of design in a development context. Two individuals were highlighted in the literature review as being of major influence in this subject area. These were Victor Papanek and Gui Bonsiepe (Madge, 1993 p153 +154). Unfortunately, Papanek died in 1998 just before this study was begun and so an understanding of his approaches and ethos had to be drawn from his writings and what others knew of him\textsuperscript{66}. Gui Bonsiepe lives in Argentina, but in July 2002, I took the opportunity to conduct a staged interview with him as part of a conference held in Istanbul\textsuperscript{67}.

3.3.2 Aims, format and interview design

- Aims of the interviews

There were two aims:

1. To learn from experienced practitioners in design education and training in a development context.
2. To explore how these practitioners approached and conducted design interventions and to gather principles and guidelines which will help with the design of the fieldwork element of this study.

\textsuperscript{65} In this study the term ‘practitioners’ relates to people who have a recognised level of skill and experience in the practice of a given discipline- in this case design in a development context.

\textsuperscript{66} The work and views of Victor Papanek are discussed in Chapter 3 (3.1.7).

\textsuperscript{67} The Design History Society Conference ‘Mind the Map’ held in Istanbul, Turkey, July 2002.
• **Background and context**

Seven interviews were conducted between March 2001 and July 2002, in this order:

1. Luiz Guimarães
2. John Ballyn
3. Mirjam Southwell
4. Ian Harris
5. Kieran Crawley
6. Krista Donaldson
7. Gui Bonsiepe

Four of the seven interviews followed a standard format (numbers 2-5). This was to use a standard set of questions as a structure within which to conduct a face-to-face semi-structured interview. The set questions also prompted responses covering relevant other topics relating to the experience of particular interviewees.

In addition to face-to-face interviews, the same questions were emailed to a number of contacts in developing countries. Only one reply was received (Number 6) and this has been included alongside the four previously mentioned in the same format.

The two other interviews (1 and 7) followed a slightly less standard format for the following reasons.

The first interview was conducted using an initial set of questions (Appendix 3 A3.1) that were subsequently refined and then used in the next five interviews (Appendix 3 A3.2). I also improved my interview technique to maintain the flow of conversation and record the information more effectively.

The interview with Bonsiepe (7), as mentioned earlier, was conducted as part of a design history conference and followed a different format using questions relating to his work and writings.

In the majority of the interviews, a number of anecdotes and references to other work were provided by the interviewees as illustrations for the answers and all of this background information provided a detailed picture of design practice in a development context.
• **Interview design**

The design of the interview as discussed above took place in two stages; the first set of questions was written in early 2001 as a result of reflection on the learning from the critical review. This set of seventeen questions was grouped under two headings; the first ten questions were intended to gather information about a specific project or programme with which the practitioner had been involved and the remaining seven questions addressed background issues relating to design in development contexts. The reason for this emphasis on a specific project or programme was that I had intended to focus the learning from this group of practitioners around specific projects with which they had been involved.

Following the first interview with Luiz Guimarães, I concluded that although it was important to gather information on specific projects, there was a great deal of other information to be learned which was of value to the study but which was not covered by this first set of questions. As a result of analysing the breadth of information drawn from the interview with Guimarães, I drew up questions under five headings in addition to those relating to a specific project. These headings were:

1. General background
2. Product design
3. Sustainability
4. Participation
5. Innovation

Under a sixth heading were questions which related to a specific project. In practice, only one interviewee responded specifically to these questions; this was because the earlier questions in the interview had already covered these points.

In addition to the revision of the questions, the way in which I conducted the interviews changed. Experience from the first interview taught me that although the structure of a set of questions was essential to enable comparison with other interviewees and to cover the ground, it was also important to allow the interview to take its own course. Often the initial scripted questions would prompt anecdotes from the interviewee or secondary questions for clarification. These would change the direction of the interviews, which sometimes resulted in questions being asked out of sequence. This flexibility, which is important to maintain in semi-structured interviews, allows for the specific expertise of the interviewee to guide the interview, as opposed to the structure of the questions (McNiff *et al.*, 2003).
As I gained experience in conducting this type of interview, I became more comfortable, which in turn allowed the interviewee to be more relaxed. During each interview, notes were taken and in some cases, recordings were made. Following the interview, the notes were written up and analysed. In some cases, there were prompts for further information which needed following up or apparent contradictions which required further contact with the interviewee to clarify.
3.3.3 Interviews

1. Dr Luiz Guimarães

12th March 2001
Birmingham, UK

- Biography
Guimarães is a Brazilian design educator working in the Federal University of Campina Grande, Paraíba State in North West Brazil. Alongside his undergraduate teaching in Industrial Design, he is the coordinator of ‘Grupo de Desenho Industrial e Desenvolvimento Sustentável’ (Industrial Design and Sustainable Development Group). This group has undertaken a number of design research interventions and research projects in partnership with local crafts and small scale manufacturing enterprises in the rural areas surrounding Campina Grande.

In 1995, Guimarães completed a PhD entitled ‘Product Design in the Context of Social Needs in Less Industrialised Countries’. One of the main conclusions of this work was that product design can play a major part in the development of micro enterprise in developing countries, if it is used as a holistic tool, which addresses the whole working environment of product development and production process. One of the recommendations for further research was the “fundamental importance” of design training for small-scale enterprise groups (Guimarães, 1995.p288).

Guimarães was selected for interview for his insights as a designer and researcher based in a developing country. His doctoral research work was of particular relevance to my project, as were his reflections on his practical design interventions in rural Paraíba state, Brazil. Guimarães has published a number of journal papers and book sections, which are referred to in other sections of the thesis (3.1.14). At the time of the interview, he was undertaking postdoctoral study at Aston University, Birmingham.

- Interview
The interview began with a discussion of Guimarães’ approach to groups of artisans and crafts people; it was apparent that a key factor in this was the relationship between the designer and a local crafts or manufacturing group. Although Guimarães was influenced by current thinking in development studies, much of his knowledge relating to design in a development context was based on sensitive practical involvement with such groups.
Guimarães suggested that when first engaging with a group it was important to build a relationship.

It is essential to spend time in the situation, immerse yourself, live it, understand it… If you don't take time to get to know the partners and do everything you can to become part of their lives, they will fabricate a story in order to get the help they need… they will tell you what they think you want to hear.

This suggestion resonated with findings from the development literature (Chambers, 1983 p59, Chambers, 2005 p177) and directly informed the process of how to engage in the field context for this study.

As part of the process of building relationships with a group, Guimarães emphasised the need to be honest and realistic about what he as an outsider could offer the group, being very clear that if the group wanted change it had better be prepared to be proactive. In this way, he felt that he was not creating any false expectations. Again, this principle was confirmed in the development literature (Chambers, 1997 p214). From this engagement strategy, he felt that it would become clear which development priorities the group were committed to.

For practical reasons of finance, resources and remote location, time to work with these communities was often limited. It was, therefore, very important to identify the individuals whose skill could be used to sustain the project and specifically, to identify those members of a community who were most likely to innovate or have some innate skill in design. In order to identify these people he asked the question, “Which of you draw?”. This often did not meet with a ready response, but was a rough identification tool, based on the findings of his earlier research.

We discussed the question, ‘Is the ability to draw an indicator of a person being innovative?’ Guimarães illustrated his answers with references to his PhD thesis (which he had sent me prior to the interview). He referred to examples of drawing by crafts people (Guimarães, 1995 p289) which showed a developed skill in design. He also highlighted evidence that scale models and three-dimensional iteration played a key part in the iterative development of new products (p192 +196).

Further analysis of his thesis showed that although Guimarães used the existence of drawing ability as a rough indicator of existing design skills he also recognised the fact
that three-dimensional iteration was the predominant method of product development used by small-scale artisans (Guimarães, 1995 p289).

Guimarães went on to discuss one of the distinctive characteristics of his work, which was the recognition of those crafts people who behave as designers, albeit informally trained. He stressed, “Interaction with informally trained designers is possible only if formally trained designers acknowledge from the outset that entrepreneurs possess valuable knowledge and experience and that design is not the exclusive domain of educated professionals”.

When working with these ‘informal designers’ he stressed the need to “work when they work and be available when they have time to innovate - their spare time”. One of the factors informing this comment was the risk inherent in innovation. The use of prime production time to experiment is a risk to the productivity of an enterprise, therefore artisans tend to try things out in the evening or early morning. In addition to this, he suggested putting the artisan in the position of the teacher, “Become the student. It will give you an insight into how informal education and training works in that culture and it will also build bridges”.

Another point, related to indigenous knowledge, came out of a mistake he acknowledged he had made when interacting with a group of workers, “Be careful not to pre-judge the ability of the local people”. He gave an example from his PhD study: He had assumed that the people he was working with could not read or write, so he had devised a system of recording the numbers and types of clothes being washed. After he had spent time there, he discovered to his embarrassment that a sophisticated system of stick counting already existed.
2. John Ballyn

19th April 2001

Didcot, Oxfordshire, UK

- Biography

John Ballyn was trained as an industrial designer at the Central School of Art and Design in the early 1960s and between 1963-73 worked for a number of large consumer durables manufacturers. In 1973, he took the position of head of product design for The Pakistani Design Institute in Karachi and in this capacity is mentioned by John Ried in a report on an exploratory visit to Pakistan, sponsored by UNIDO and ICSID (Reid, 1978 p137). This post began a career of twenty-eight years (at the time of the interview) working as a designer in developing countries. Ballyn generally operates as an independent consultant contracted by a development agency to work with local crafts groups, bringing design expertise either in the form of training or simply the production of designs that can be produced by local artisans, primarily for the export market. In 1983, as will be discussed later, he was also employed as a consultant to set up the Sri Lankan National Design Centre. Over the twenty-eight year period leading up to the interview, he had worked in twenty-four countries with one hundred and one crafts groups using twenty-six raw materials and provided a total of one thousand, one hundred and sixty-seven designs which were made in sample form.

Ballyn has also worked for a range of large development agencies such as UNIDO, UNDP and the International Labour Organisation (ILO)68, as well as private agencies such as Oxfam. He has also worked as a designer for private manufacturing companies in developing countries. The majority of his work for development agencies has taken the form of working with and advising small crafts groups and assisting them to produce designs for western markets.

Ballyn was selected as an interviewee for his insights as a designer with considerable experience of working with crafts producers in developing countries. The breadth of his

68 The ILO is the UN specialized agency which seeks the promotion of social justice and internationally recognized human and labour rights. “devoted to advancing opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity. Its main aims are to promote rights at work, encourage decent employment opportunities, enhance social protection and strengthen dialogue in handling work-related issues””. For more information see: http://www.ilo.org/global/lang--en/index.htm - retrieved 10.4.12
experience, from policy through to grass roots interventions, was of particular relevance to this project.

- **Interview**

Ballyn began the interview with an overview of his history of engagement in this field, beginning with his first encounter with design in this context working as the head of product design for the newly established Pakistan Design Institute. During this time he read Victor Papanek’s book, ‘Design for the Real World’, which had just been published. He related that it was of great interest to him working in that context, but as he read it he thought, “Even this is not enough”. Papanek’s ideas, although seen as radical by the wider design profession at the time and still carrying a resonance today, were not radical enough for the realities that Ballyn found around him. He went on to note that Papanek changed his approach between the first and second editions of the book and how, in the 1985 edition, he wrote a foreword explaining his change from expert intervener to partnership (Papanek, 1985.piv).

One of Ballyn’s key themes was the need for appropriate approaches to the people he was working with. “Listen to the people, sit for a long time and just watch and learn. Get them to teach you, become the student and observe how they teach and therefore how they learn”. The above quotation encapsulates Ballyn’s views on personal intervention strategies. He talked about arriving at a place in which he was due to work and simply sitting in the market place. Often the local children would be the first to approach him and via this, he would introduce himself to the local crafts people.

Other strategies, such as socialising with the crafts people, sleeping, eating and washing in the same places as them and becoming involved in aspects of their lives that were not related to the training work, such as taking them to hospital or helping them with local bureaucracy, were all discussed as being important in building relationships with the crafts people. These relationships broke down the trainer/trainee hierarchy and enabled the training to draw on aspects of the crafts people’s life and experience, thus making it more applicable to their situations.

A representative from a large development organisation once asked Ballyn to encapsulate his training methods in a manual. He answered saying “This is not possible as every
situation is unique and requires a tailored response”. He was also asked how he built a rapport with the crafts people and his response was “You don’t want to know…If I told you that, you wouldn’t understand and probably wouldn’t employ me again”. This reinforces the informal, sometimes unorthodox nature of the methods needed to build a rapport with a group of crafts people that are almost always tailored to a particular situation.

Ballyn’s response to the results of any design intervention was to emphasise the fact that, “The products are peripheral… what is important is the mindset of the producer…” This is significant given that, on the face of it, Ballyn’s work has been primarily about the design and production of products for western markets. Experience in the field has taught him that sustainable change cannot rely on a new product range but rather on a new approach to a given situation, emphasising process over product. He suggested that in many cases crafts people in developing countries are in dependent relationships with either middlemen or employers and are therefore not free to innovate or develop their own products, again emphasising the importance of process over product.

A more recent focus of Ballyn’s work has been an emphasis on marketing and he has been involved in training for crafts people as well as the creation of materials to support this work. The Commonwealth Secretariat commissioned him to produce a manual for the sector, which specifically dealt with marketing (Ballyn, 2001).

During the interview, a large number of relevant contacts and references were also made available and these, together with my growing awareness of on-going work, helped to inform the decision process for selecting a geographic focus for the study.
3. Dr Mirjam Southwell
24th November 2001
London, UK.

- **Biography**

  At the time of the interview, Mirjam Southwell was a principal lecturer in sustainable design at Goldsmiths College in South London, with experience in developing countries as a VSO volunteer.

  She was selected for her insights as a designer and researcher whose studies have focused on the role of design in developing countries. Her doctoral research work, completed in 1999, was of particular relevance to this project (Southwell, 1999), highlighting aspects of design practice in relation to the development context, with particular reference to the importance of participatory development approaches to inform the design of proposed intervention strategies. Southwell has published a number of journal papers and book sections (see 3.3.13).

- **Interview**

  The interview began with a comparison of two of the few cases of good product design practice in a development context for which information was available in any detail; the solar-powered light\(^{69}\) by ITDG (Neilnob, 2008) and the ‘Freeplay’ radio\(^{70}\). These had been referred to by Southwell in her doctoral work (Southwell, 1999). In the development of the light, a number of participatory studies were done involving all members of the community and the final specification for the light source was drawn from the women’s priority for white light to help their children do their homework.

  The radio, by contrast, was developed without any participation or research. Southwell had interviewed the UK-based designers involved in the initial stages of the radio project as part of her PhD (Southwell, 1999 p46). Even though the product had been successful on many fronts, Southwell felt that in terms of being a sustainable product for the context of rural Africa (as originally conceived), the radio had significant limitations, the most striking of which was the fact that it was dangerous to attempt to repair because of the powerful

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internal spring. She felt this aspect to be in opposition to the majority of successful products developed in and for this context, which were, by design, repairable by local people.

The interview moved on to the role of product design in a development context. In response to this discussion, Southwell suggested that although she felt that design did have a clear role to play in a development context, the profession also needed to take a careful look at itself and its role within the global economic and social structures. If design is intrinsically connected to liberal capitalist economic structures, how then can it operate effectively and sustainably within a development context without bringing with it these influences? “It might be that it needs to find a voice in challenging those, before it can really assert itself as having a role in this context”.

Having voiced the opinion that there was a role for product design in this context, the issue of the sustainability of any intervention was raised. The discussion covered the fact that the concept of sustainability in development was relatively new and hard to define but, there is that question “What happens when you withdraw?” Southwell went on to emphasise from her experience, echoing recent development research (Appleton, 1994, Appleton, 1995), that the acknowledgement of gender as an issue is a key factor in the long-term success of a project.

In order for something to be sustainable and long-term, when you withdraw you have to work with the structures that existed already. Look at water pumps, for example. Surprise, surprise! In most communities, it is the women who are responsible for water collection. Any intervention to change the way water is collected has to involve women. You’d be surprised at how few do.

Participation in development was discussed at some length. Southwell has written a number of papers on this subject with a particular focus on the role of such approaches in design (Southwell, 1997b, Southwell, 1997a, Southwell, 2000, Southwell, 2001). She proposes the adoption of these strategies as a means of involving the users in the design process. In the interview, we discussed their use in the training context as a vehicle for facilitating peer learning. The breadth of opinion in the development discourse was discussed, especially taking into account the post-development critique of such techniques. Southwell’s response was, “…there are no right or wrong answers. Well, there are several wrong answers! But there are variations on the theme of rightness”. She did not give any examples of these variations, but rather suggested that following a participatory development approach in a self-reflective manner is likely to be ‘more right’.
4. Ian Harris
11\textsuperscript{th} May 2001
Cardiff, UK.

- **Biography**

At the time of the interview, Harris worked as a designer for the charity ‘Motivation’ (see footnote 11 p26 for explanation). He trained as an industrial designer and worked as a designer and project manager for Motivation, working on product development projects in Bangladesh, Nicaragua, Sri Lanka, and Tanzania.

Harris was selected for his insights as a designer with extensive experience of designing in developing countries, as well as preparing and delivering design training for artisans in this context. His work in setting up design training courses for local artisans in Nicaragua and Tanzania was of particular relevance to the project.

- **Interview**

The interview began with a discussion about the potential role of design and training for design in a development context. “In most developing countries there is an overriding urge in the majority of people to better themselves. They see education and training as a way to do this”. Harris stressed the need for design training to be focussed on the process, which he termed ‘design thinking’ and followed that with issues of materials and production. “What is really important in training is to address fundamental thought processes… Design is all about thought processes – it’s about unlocking ideas”.

This emphasis on thought processes was drawn from his experience of setting up training courses in developing countries, where the aim was to support sustainable design and manufacturing facilities once Motivation’s workers had withdrawn. We discussed the fact that it is important for any potential training to support the local materials and manufacturing practices. Harris said that in his experience, in various developing countries there was an increasing aspirational desire for western products. His observation was that this exposure to high quality mass-produced items had a negative impact on the marketing of locally made products, which were seen to be of poor quality. This led to a discussion on how to train crafts people in the importance of quality, and about the differing perception of ‘handmade’ items in different cultures.
The discussion concluded with a question that summed up the need to work within the current culture of globalisation without introducing and/or reinforcing the values of the west, “Is it possible to train designers without a western bias?” In answering this question, Harris reinforced the need for the local ownership of any intervention. Any empowerment should reinforce and emphasise traditional values and external input should only be used to steer and give clues and ideas rather than imposing solutions.

Referring to design training, Harris suggested that product differentiation was a key issue. Training in marketing awareness, both to find a product niche and then to sell the product to prospective customers, was crucial. In his experience, he felt that this emphasis on market research and marketing was important and was often overlooked when considering product development training in this context.

When discussing the various factors that contributed to the sustainability of an enterprise, Harris suggested that there were almost always ways to access some funds, even if it were simply access to products and services by bartering. He went on to say that good design training reduces reliance on external sources of finance and teaches a better, more economic use of material.

5. Kieran Crawley
11th September 2001
Johannesburg, South Africa.

- **Biography**
  At the time of the interview, Crawley was working as a consultant in development organisations in South Africa. He trained as a mechanical engineer and then as an industrial designer at the Royal College of Art, before working for VSO for 3 years in Kenya. Whilst with VSO, he developed a short course in design training (along with Aelsa Buckley, a fellow designer), called ‘Design for Profit’. This course was a response to the need for artisans to develop new products and improve the quality of existing ones.

  Crawley was selected for his insights as a designer with extensive experience of designing, as well as preparing and delivering design training for artisans in developing countries. His
work in Kenya and South Africa, setting up design training courses for local artisans, was of particular relevance to the project.

- Interview

The interview began with a general discussion about design in a development context. Crawley made the point that, “Design can be used to attract customers and it can also inspire consumer confidence in the products but also build the confidence of the artisan”.

Having been an advocate for the role of design in a development context for many years, he posed the question, “Why is design not utilized by the majority of NGOs?”.

The conversation then focussed on the question of how best to provide design training for the informal sector. Was it possible to use formal training methods in this context? It became clear that there is not a clear yes or no answer; that structured training is helpful, but this needs to be tailored to the needs of the group being trained.

He went on to say,

- There is plenty of evidence of existing design talent, but it needs encouragement. Role models are needed to convince people it is a worthwhile activity and ‘hot houses’ could be used to build confidence. There seems to be evidence of some form of collective design sense, which has been passed down through the ages. Somehow though, it does not seem possible for artisans to draw upon this when they attempt to make a new, non-traditional product.

He suggested that design training in this context can be used in two ways:

1. To build local design capacity via specific training.
2. To build capacity of a more general problem-solving nature at the grass roots.

In identifying these two possible foci for design training, he also emphasised the importance of any design activity being competitive in the local market place “The first thing artisans need is a market edge…then the ability to solve their own needs”.

Crawley explained that one of the reasons which prompted him to begin to develop the ‘Design for Profit’ training programme was that he observed too many crafts people making similar products, competing only on price and speed of delivery. At the time, he was convinced that design could enable these crafts people to differentiate their products and meet customer requirements. As a result of experiences during the training, he still saw this as one of the key contributions which can be made by design.
He also learned (as he ran various iterations of ‘Design for Profit’ in different parts of Africa) to design the training in a way which minimised the disruption to the day to day work of the crafts people. He found that running the workshop in the mornings allowed the artisans to work and earn money in the afternoons.

He found that one of the best ways to illustrate the training lessons was to find crafts people who exhibited good practice and use them as role models.

There are very few designers in developing countries to act as role models and as champions of the cause. One example...is an artisan who designed jewellery. Following some external advice, he began to use fragments of local pottery in traditional jewellery settings. These items were sold so well that he was able make enough money to build himself a new house. If other artisans and crafts people were able to see this example and interact with him, they would be more encouraged to use design.

An extension of this was the use of examples of good and bad design as a resource in teaching to highlight issues of quality, materials, manufacturing and usability. This idea was also extended in asking the artisans to bring in one of their products during the course as a focus for discussion. This was often used as an introductory exercise and served to provide a foundation on which to build further training. This practice was also observed in later training programmes in India (4.3.5 and 4.4.5).

Another lesson learned from supporting crafts groups was that access to micro finance can be the difference between a business surviving or failing; although this was outside the remit of design interventions it was important to recognise its influence on the sustainability of crafts enterprises.

Towards the end of the interview, he posed a question “What is best - capacity building or the availability of locally trained design experts?”. The conclusion from the ensuing discussion was that probably both were needed and if artisans could eventually become those design experts then that would be all the more sustainable.

Further analysis of the ‘Design for Profit’ training materials following the interview revealed that participatory approaches were used in its delivery, although this was not highlighted in the interview. The use of a journey metaphor was used to communicate the idea of a design process and fun energisers were used as icebreakers.
6. Krista Donaldson
Email interview 8th June 2001
From Nairobi, Kenya.

- Biography
At the time of the interview, Donaldson was a doctoral student undertaking fieldwork with small-scale artisans in Kenya. She trained as a mechanical engineer and then as an industrial designer, after which she began a PhD in mechanical engineering and manufacturing in a development context.

Donaldson was selected to be interviewed for her insights as a designer with current experience of working in a product development capacity with artisans in developing countries. As part of her doctoral studies in mechanical engineering, she studied local small-scale manufacturing practices in Kenya and South Africa, analysing how these products were designed, manufactured and marketed. Her work with these artisans was of particular relevance to the project.

- Interview
The interview began with the question, ‘Does design have a role in developing countries?’
Donaldson’s response was,
Wherever there are people with needs, product design has a role. The question, I think, is does the ‘product design process’, as it is academically accepted and taught, [in formal design education] have a role in developing countries? – and that depends who is undertaking the process? An artisan doesn’t necessarily have the skill to undertake an appropriate design process, and he/she certainly doesn’t typically have the money or time. Individuals with access to education, tools, time, and capital, however, can carry out design in developing countries – in most cases, however, this is done by donors.71

This position was reinforced in published papers about her work in Africa (Donaldson,K et al 2001 and Donaldson, K 2006)

In answer to a question about the role of design education, Donaldson suggested that a spectrum of responses was required. In formal design education, students need to learn in the context of local problems.

Much of the curriculum is based on other cultures and ways of doing things. Designing products that have no visible market is the surest way to failure and in my opinion, teaching design without real context is an extreme disservice to the student. Design should not even begin without a need (and then subsequent understanding of the need following research). In design education, the way to teach ‘need comprehension’ is to have students investigating a real (local, accessible, and comprehensible) problem.

71 In this case development organisations who intervene to fund design initiatives.
Asking students to design products based merely on remote specifications is inherently flawed with the designer’s bias ‘filling in the blanks’. This response echoed similar arguments put forward by Balaram (1998 p58).

In a comment on the existing practice of donor agencies she stated,

Donor projects set out to train local artisans on how to become better designers or design better products, but again I think much of the teaching is based on western mentalities of appropriate process without a full understanding of the appropriateness of the process in different environments. To be successful, the benefits [to artisans] of the learned skills...need to be sustainable – trainings, like products, need to display immediate benefit to the consumer (artisan).

She went on to qualify this saying “The main driver of sustainability is the market. Products are sustainable if they meet a need and are affordable and available”. Thus, the immediate benefit to the artisans in this case relates to training, which can be immediately applied to producing marketable products, which in turn provide a rapid financial return.

The emphasis on immediate benefit was an important point to recognise. This again influenced the design of training interventions by bringing a relevance and immediacy to exercises, which were tailored to potential new markets for the crafts groups. “In all cases, I believe individuals will take risks and innovate as long as there is a clear market need for them to do so (the promise of immediate profits). There typically aren’t resources (money, time, education) for need-finding and market analysis”.

In this statement, there is an obvious tension. How can a market need be established without the resources for market analysis? In this statement, Donaldson is focussing on the idea of risk, in other sections of the interview she referred to ways to provide market intelligence for artisans. These range from training exercises which support the artisan to analyse the market and produce relevant products, as well as the practice of copying and modifying existing products that have a proven market.

She went on to suggest that in some situations, the lack of resources could stimulate innovation,

Some of the factors that would appear to limit our idea of innovation make possible incredible innovation and entrepreneurship that is not evident in the industrialized environment. For example, many of the artisans in Kenya use all recycled materials. One guy melts down thrown-away plastic buckets to make simple sprinkler heads. Many of the sheet metal workers simply hammer out oil barrels, and tin cans are modified to become small kerosene lanterns.
When asked about appropriate intervention strategies, Donaldson emphasised the importance of any product-based intervention being based on a clearly defined market need. This, she suggested, would be a large contributor towards sustainability. “Products are sustainable if they meet a need and are affordable and available”. She went on to say that:

Marketing is extremely important and often overlooked by academics in its importance in product development. In DCs [Developing Countries], infrastructure is poor, so making products available (affordably) is difficult. Also, in first world environments, companies depend on word of mouth and this isn’t necessarily valid in other cultures. In Kenya, I’ve found that people need to actually see the product working (sometimes several times) before they are willing to make an investment. These are marketing challenges.

In relation to participatory practices in development, she echoed the concerns brought forward by Rahnema (1990 p233), stating that she believed in the spirit of such approaches, but had a problem with how they were implemented, stating that they often bring with them an unequal power balance. She suggested that despite the theory of participatory approaches, levelling relationships and empowering local solutions, in her view, the facilitator is still seen as being superior to the trainees.

She ended the interview with an illustration of poor intervention strategies she had encountered.

Almost all organizations I’ve seen promoting design in East Africa do not do need-finding. Projects are determined by available resources; e.g. ‘Peanuts/groundnuts exist here, we’ll design a peanut butter maker’, with no real investigation of whether people might like or be able to afford the peanut butter. Likewise, when artisans are ‘taught’ to identify needs, there seems to be little stress on the business side and other factors that will make it a sustainable product (like, ‘Is this something people would buy? And at what price?’).

This emphasis on an enterprise focus for product development, which included marketing, highlighted the need in design training interventions for a holistic product development system, which, according to Donaldson, is not often recognised by development organisations when training crafts people in design skills.

This emphasis by Donaldson prompted me to look in closer detail at the complete product development cycle and the crafts peoples’ roles in it. Marketing as a key feature in this cycle is also emphasised by Ballyn (3.3.3-2).
7. Gui Bonsiepe
July 2002
Istanbul, Turkey.

- **Biography**
  Bonsiepe was selected to be interviewed for this study because he was one of the two people\(^{72}\) identified in the literature who have had the largest impact on the field in the period being studied (Madge, 1993 p154).

  The interview took place as part of the `Mind the Map` design history conference in Istanbul, Turkey in July 2002. The format was a staged interview with pre-agreed questions, which was then published in `Design Issues` magazine. (see Appendix 8 A8.1)

  A large part of the interview dealt with the historical context of Bonsiepe’s work (see literature review section 3.1.10). A number of the questions dealt with the future of design work in this context (Fathers, 2003). The responses to these questions are of interest in this section and contributed to the findings that informed the design of the fieldwork.

- **Interview**
  Bonsiepe highlighted the fact that many people in the developed world perceive people in what he would term `peripheral countries` (i.e. developing countries) to be naïve and unskilled. Bonsiepe challenged this point of view, suggesting instead that his experience was of a critical and learning audience who wanted tools to apply product design in a real world context.

    In 1973, he had expressed similar concerns in a paper for the Design for Need conference saying: 
    My summary based on eight years of continuous work in peripheral countries: ‘Design for dependent countries’, should read ‘Design in dependent countries’ or ‘Design by dependent countries’. The centre does not possess the universal magic formulae of industrial design, which then have to be propagated to the inhabitants of the periphery whom the intelligence agencies ideologically conceive as…[the]… underdeveloped… (Bonsiepe, 1973 p18).

    In the interview, he was asked whether he still held to this position. His response was that design practice must be localised, “Design problems will only be resolved in the local context and not by outsiders coming in on a stopover visit” (Fathers, 2003 p48).

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\(^{72}\) The other was Victor Papanek
Bonsiepe was asked to comment on the continuing impact of Papanek’s work. He said that although the work still causes resonances in the design community, the answers he proposed didn’t go far enough and were not informed by the socio-political dimension.

The literature suggests that Papanek’s concentration on grass roots design linked to intermediate technology was at the opposite end of the spectrum to Bonsiepe, who concentrated on the role of design in the industrialisation of developing economies. Bonsiepe’s negative, almost dismissive response to Papanek’s approach and his strongly-held views of Papanek’s alternative theories to design in development, prompted me to reflect that on the one hand, the type of approach suggested by Papanek is supported by participatory development approaches, but on the other if, as Bonsiepe explained, the idea of intermediate technology is really based on a prejudice which limits peripheral countries to second or third-rate technology, then it could be thought of as anti-development. The key factor in this discussion is the linkage of technology to design outcomes.

The interview continued with a discussion about Bonsiepe’s contribution to the development of design in this context. He described his contribution as being a catalyst in forming relationships at the right time with the right people to begin to outline a model for product design practice in developing countries, especially those in South America. This model is described in more detail in a chapter in the publication ‘The Domain of Design’ (Bonsiepe, 1990 p255).

As a final question, Bonsiepe was asked about his criteria for judging successful designs in a development context. He began his answer by saying that development as such has been abandoned and has been replaced by policies for financing external debt. He expanded on this with illustrations from the South American countries that had been forced to concentrate on an “export or die imperative” in order to service debts to developed countries. Going on to address the criteria he would employ, Bonsiepe focussed on quality of use as a key measure of effective design interventions, emphasising both the quality of the user experience of artefacts and information, as well as the quality of the formal and aesthetic dimension. As an example of this holistic influence on the quality of use of products and user experience, he suggested that to make the world more habitable was not a bad aim for the design profession.

Southwell also discusses similar views, suggesting that, “Countries in the South are being shaped by the technologies the North deigns them to have” (Southwell, 1997a p3).
In summing up, he claimed that, “…the most important criterion for successful design is any attempt to contribute towards autonomy, be it the autonomy of the client, the autonomy of the user or the autonomy of the economy” (Fathers, 2003 p53).

3.3.4 Summary of learning

This phase of the research built upon the findings from the literature review, adding elements of personal observations and experience of the role and impact of design and design training in developing countries, drawn from the responses of the interviewees. The particular relevance of the findings from this phase of the research to the wider project is that they are drawn from the practical experiences of practitioners operating in this context.

Reflections that have been identified from these interviews are discussed under three broad themes:

a. Intervention
b. Existing skills and knowledge
c. Design training

• Intervention

As explained in the introduction to this section, the main reason for approaching these particular practitioners was that they were all involved in a practical way in the role of design in a development context. One of the key themes which was identified when talking to them about their experiences was the emphasis they placed on simple practical approaches to intervening effectively and appropriately in a chosen context, which had been developed over a significant period of time, in some cases decades. The majority of these practitioners emphasised the need to take time to get to know the people and the environment in which they live and work. Building relationships was emphasised a number of times, along with the need to observe and reflect on intervention strategies in context. This approach was echoed by findings from development theory (Chambers, 2005 p.175, Rahnema, 1990 p218) and (3.2.8).

Bonsiepe’s comment about ‘outsiders on stopover visits’ is echoed in development literature, especially by Chambers who uses the term “development tourists” (Chambers, 1983 p10). This perspective is reinforced by Guimarães and Ballyn, who both suggest taking time to observe and learn from the crafts people as a way of developing relationships. Guimarães emphasised the need to negotiate these new relationships in a spirit of openness.
and reality; not making unrealistic promises. Southwell emphasised the central role of women in sustainable development, which was a timely prompt to be aware of issues relating to gender and role in the proposed experiments in the field.

Another aspect of the impact of any intervention, related to the need to work according to the time scales of local people, was that of making yourself available when they have time to spare. This idea recurs in the context of design training, with the suggestion that any training intervention should be designed to cause as little disruption as possible in the working lives of the participants. In a similar vein, Southwell posed the question “What happens when we leave?” This emphasis on appropriate interventions, leaving behind change that can be sustained, was a key point for reflection and a prompt for further research.

- **Existing skills and knowledge**

  In order to establish a sustainable working relationship with a group of crafts people, Guimarães suggested that individuals should be identified who are naturally innovative. Focussing on these people was suggested as being one of the most productive ways of influencing design in a given group of crafts people. One tool, which Guimarães used to identify such people, was their ability to draw; he also recognised that many designers used models to explore new ideas. When I began to work with crafts people later in the project, it became clear that both 2D and 3D ideas-exploration strategies were used and both were needed to encourage crafts people to experiment with new designs. Guimarães also recognised that often crafts people are informal designers, he emphasised that in order to work effectively with these informal designers it is important to re-evaluate the common ‘western’ understanding of design and recognise that formally trained designers do not have the monopoly on design activity.

  Crawley suggested that working with and identifying informal designers as role models for other crafts people can raise awareness of the potential benefit of design in this context, as well as providing a ready source of future trainers. This model of training-trainers is recognised in development practice as a contributor towards sustainable intervention (Chauhan, 1995 pi).

  The recognition of existing skills by the interviewees is often referred to as one that needs careful consideration. On the one hand, Crawley emphasises that highly developed skills used in the making of traditional artefacts are different from those that are needed for the
development of a new design. He suggests that there often seems to be a collective sense of
design, which is held in traditional practice. On the other hand, Guimarães cautions not to
underestimate the skills of local people and risk patronising them with inappropriate
interventions.

Following my interview with Guimarães, I modified the interview questions to include
specific questions related to innovation, to the role of development theory and in particular,
participatory approaches and the factors, which affect the sustainability of an enterprise
(Appendix 3).

- Design training
  When discussing the type and role of design training, it was suggested by both Guimarães
and Ballyn that one of the key ways to understand what training approaches would be
appropriate in a given situation would be to ask the crafts people to demonstrate their skills,
putting the trainer in the situation of being a learner. This strategy is again reinforced in
findings from development studies (Chambers, 1997 p204).

It was also emphasised by Ballyn, Crawley and Harris that training should concentrate on
thinking processes and problem solving as a key strategy. Crawley suggests that the process
based approach to problems typified in design, is needed in everyday life beyond product
development; an idea which was also proposed by Corlett (1997 p10). Harris emphasised the
need to train crafts people in design thinking as a way to unlock ideas. Ballyn encapsulated
this theme, stating “products are peripheral”, changing mindsets is far more important.
Donaldson, in recognising the value of such training to enterprises, underlined the need for
such interventions to have immediate beneficial outcomes for the crafts people. She also
questioned the western bias in design training; an idea which was also echoed by Harris and
alluded to by Bonsiepe. The link between design and western culture and consumerism,
raised by Southwell, was a regular prompt for reflection throughout the research, asking the
question whether it was beneficial for crafts enterprises to attempt to operate outside the
context of the global market, or use it as a means of emphasising the need for high quality
manufacturing and refining approaches to the market.

A key element of the training approaches discussed by the practitioners was a series of
suggestions regarding communication strategies as well as training content. Techniques
were suggested that used games and elements of fun to energise the training process by
Ballyn and Crawley; they are also often used in participatory development approaches (Chambers, 2002a p31) and are discussed in more detail later in the thesis (4.2.3 and 4.5.6).

The need for specific training to help craftspeople engage with customers and address the market place for their products was emphasised by Harris and Crawley, with suggestions to include content on how to research the local market as well as how to use design as a marketing tool to differentiate products. Ballyn and Donaldson emphasised the need to help craftspeople to identify markets and thus reduce the risk in developing new products. It was also suggested that design could boost consumer confidence in products and in turn boost the confidence of the craftspeople. The emphasis on locally generated answers to local needs, which also acts as an essential immersive education process for the designer, was a key influence on my later work in the field.

Access to finance was also discussed as being a key factor in the sustainability of enterprises and although this is generally outside the remit of design, it needs to be considered as part of the context for successful enterprises. In contrast to this, Harris suggested that although finance was important, the cash economy was over-emphasised and that other forms of commerce could equally well support enterprises. He also suggested that training in the efficient use of materials was a key factor, in his experience, in reducing the reliance on external finance.

Donaldson pointed out that a lack of resources can also be a positive driver for innovation and gave examples of material recycling and re-use, which is an often observed feature of informally developed products in developing countries. This opinion was supported by Poston in his study of blacksmiths in Zaire (Poston, 1994 p16).
3.3.5 Findings

1. When training groups of crafts people, it is helpful to identify the existing skills, especially of those who are naturally innovative and to use them as role models (Guimarães and Crawley).

2. Both two-dimensional and three-dimensional sketching activity can be good indicators of existing design skills (Guimarães).

3. A strategy of learning from crafts people is helpful in levelling relationships between trainers and crafts groups (Guimarães and Ballyn).

4. Care needs to be taken not to raise expectations beyond what can realistically be achieved in a given intervention (Guimarães).

5. In order to minimise disruption to on-going work, training and other interventions with crafts people should take place according to their time scales and utilising other resources (Guimarães).

6. It is important to allow sufficient time to get to know the crafts people and the context in which they work in order to intervene in any effective way (Guimarães, Ballyn, and Bonsiepe).

7. Training should have immediately perceived beneficial outcomes to the crafts people (Donaldson).

8. Training should emphasise the importance of research and producing designs which relate to existing and accessible markets (Ballyn, Harris, Crawley, and Donaldson).

9. Care must be taken when implementing design training that alien (western) values are not inculcated and that training examples and illustrations are based in local culture, values and materials (Southwell, Harris, Donaldson).
10. Training techniques based on PDA, such as fun energisers and the use of metaphors to describe the design process are useful in design training interventions (Southwell and Crawley).

11. Design thinking can be used effectively in a broader context than product development, as problem analysis and solution generation (Ballyn, Harris, and Crawley).
3.4 Observation and orientation

3.4.1 Introduction

This phase of the research took place between November 2000 and December 2002 and consisted of visits to Sri Lanka and India, two countries in which existing design training activity had been identified during the critical review.

- Aim and objectives
  
  Aim
  
  To observe and learn from design interventions and practice in a development context.

  Objectives
  
  1. To meet and interview practitioners in the field.
  2. To explore the validity and applicability of ideas and concepts drawn from the critical review.
  3. To build contacts for future field visits.
  4. To gain initial experience in the field; in particular, observing, recording and analysing existing practice in the crafts sector.

As Shaffir and Stebbins state, fieldwork is about gaining a first-hand understanding of a given context and is best approached in a flexible, open-minded manner (Shaffir and Stebbins, 1991 p3). Therefore, the methodological approach to these field visits was to network and build on relationships as opportunities arose. Although a series of meetings was arranged in advance in order to maximise the limited time, often some of the most valuable information gathered and experiences gained resulted from following leads and recommendations from initial contacts in the country. This methodological approach is described and discussed in more detail in Chapter 2, which covers the design of the research.
3.4.2 Sri Lanka: March 2001

- **Objectives**

  1. **Meetings with a number of parties involved with design in this context**

     Before the trip, a number of meetings were arranged with a range of different individuals and organisations, in order to gather a spectrum of perspectives on the role of design activity in this context. These were:

     a. Members of the local ITDG team
     b. A senior representative from the Marga Institute, the Sri Lankan Development Studies Institute.
     c. Staff from the design department of Moratua University to discuss how this example of formal design education related to the socio-economic context in which it is taught.
     d. The director and staff from the Sri Lankan National Design Centre (SLNDC) to learn more about their design course for crafts people and to explore possible opportunities for collaboration.

  2. **Observation of a design-training course run by the charity Motivation**

     I was invited by Ray Mines, a designer employed by Motivation, to observe the design course for special seating technicians run by Motivation. The opportunity to observe this particular course was sought for two main reasons. The first was that it was being conducted by an NGO that had a large amount of experience in delivering design-led services in a development context. The second reason was that Mines had identified a particular niche of design training that he felt was missing and was attempting to deliver a training programme to address this need.

- **Outcomes**

  1a. **Meetings with ITDG**

     These meetings were part of the planning phase for a joint bid to DFID on peer-to-peer training of light metal artisans, in which I was named as consultant.

     One of the key training principles of the project defined by ITDG was the training of trainers; this experience informed the design of the training strategies in relation to sustainability and autonomous propagation. The preparation process for the project also included a visit to the interior of the island to visit groups of artisans and a small vocational training institute. This visit afforded a number of insights into the limitations of existing
vocational training approaches, as well as the day to day product development strategies of artisans.

These insights were:

- An understanding of the workshop environments and technologies used by this type of metalwork artisans.
- The use of pattern books as the basis for designing new products and also facilitating discussions and negotiations with customers. This emphasised the value and importance of visual language in communicating design.
- The observation (which was confirmed by local project staff) that many of these crafts people competed solely on price. This highlighted the opportunity for the use of design thinking to emphasise other opportunities for product differentiation, such as function, quality and aesthetics.
- Observation of evidence of copying successful products as a major source of new product development. These observations supported learning drawn from the literature (3.1) and practitioners (3.3).
- A clearer understanding of the role of TVET in this context.
- Discussions with the ITDG team about the successes and failures of recent training initiatives for this sector, such as manufacturers’ demonstrations and lectures.

1b. Discussion with the Marga Institute

The purpose of the discussion with Bazil Ilangakoon, the executive vice chair of the institute, was to gather specific information on the particular development situation in the country from an expert body. This meeting provided the opportunity to ask a number of questions about development in practice in this context. One of the key points he emphasised during the discussion were the role of local tradition, custom and legend as an influence on sustainable choices in the use of local materials. An example of this was the custom that a particular stone was only used for temples: Ilangakoon explained that the reason behind the custom was that there were only a small number of places where this high quality stone was available in Sri Lanka and so the custom limited the demand on these resources. These indigenous checks and balances, which were established over many years and maintained by local customs, were swept aside when the European settlers and colonisers arrived, using whatever material they wanted without reference to the sustainability of its resource and bringing with them modern materials such as corrugated
iron, which were ill-suited to the local environment. This eloquently illustrates the need for development initiatives to be tailored to a specific context, taking full account of indigenous knowledge and practices.

The visit also allowed me to spend time in the institute’s extensive libraries, accessing and copying publications which were not available outside the country (Marga Institute, 1974; Marga Institute, 1992; Marga Institute, 1974; Kanesalingam, 1989).

**1c. Meeting with the staff of Moratua University**

This meeting provided the opportunity to learn about a new design course, which almost exclusively followed a western model of design education. Although this educational approach appeared to be entirely appropriate, given the aims of the curriculum were to provide a university design education, staff were in the process of designing strategies that challenged the students to respond to the local context in their design thinking. These mainly related to local materials, forms and decoration. The course had grown out of a well-established architecture course and was still in the process of finding its focus. This following of a western model is widespread across the developing world with documented examples in South America and India. The growing challenge, as expressed by Balaram (1998 p55), is to utilise the benefits of a well established education model without causing the locally trained designers to disengage from the challenges posed in their local context.

**1d. Meeting with the director of SLNDC**

The centre had been set up in 1983 by Upendra Randaniya in collaboration with John Ballyn (3.3.3-2). At the time of the interview, the centre was in the process of developing a diploma course for crafts people. An invitation was extended to me to collaborate on the running of the course the following year, but because the course was run by a government agency, the possibilities for any meaningful innovation or change were limited. The course followed a rigid didactic classroom-based model and it was decided, following initial discussions and evaluation of the existing teaching materials, that this opportunity would not offer sufficient scope for experimentation with different training approaches and was not pursued any further. This decision was made following offers of opportunities in India, which were a better fit with the aims and objectives of the research.
2. The Motivation design training course

During the visit to the training centre, two useful insights were gained by observing this model of design training tailored to a specific target audience:

- Drawing was observed as being a useful medium for the exploration of concept development; high levels of competency in perspective drawing were shown in artisans with no prior experience.
- The value of three-dimensional iteration and prototyping was emphasised as the primary vehicle for the development of new product innovations.

• Reflections on Sri Lanka

As a result of this field observation visit, the following are my reflections on design training in this context:

Relevant training

Design training needs to be relevant to the artisan’s context in terms of the technology used and the training environment. This position, raised by Poston, was discussed in the literature review and explored on the ground during this phase of the research. Initial observations confirm that these issues are important factors in the design of training interventions for the crafts sector (Poston, 1994 p22).

Based on the information gathered during this field observation, it appears that formal, theory-based training is not valued by artisans, but practical training based on demonstrations with relevant examples is more effective.

TVET, especially when funded by government or an aid organisation, is often aimed at equipping a workforce for large-scale manufacturing. This model of training is not always appropriate for small-scale entrepreneurial artisans. This issue is further discussed in Poston (1994 p21) and Wallenbourn (2001 p3).

2D and 3D sketching

Following exposure to artisans and crafts people using a range of drawing styles to record and explore their design thinking, it was observed that sketching in both two and three-dimensions can be a useful tool for communication. It should not be assumed that artisans and crafts people that have not had any training or experience in art or drawing are unable to communicate in this manner.
Chapter 3 Section 3.4 Observation and Orientation 3.4.2

**Participatory approaches**

Observation of existing training practices during this initial phase of the fieldwork, especially in the context of informal artisan training, indicated that participatory development approaches would offer an appropriate means of defining training needs. In addition to this, any design training needs to be placed in the context of the wider product development process, considering areas such as marketing and problem-solving skills. Design training also needs to support and work alongside existing skills in the areas of crafts and entrepreneurial artisans.

**Training-trainers**

Peer-to-peer training (or training-trainers) methods and the practicalities of building such training networks were discussed with members of the ITDG team and others. These discussions provided useful pointers for future directions in the research. Training of trainers is an established method of peer-to-peer training, which maximises available resources and utilises local expertise. The identification of suitable local trainee trainers is key to this training strategy, in order to facilitate the second phase of the transfer of knowledge, namely the trained trainer then training others. These partners will have existing networks of crafts people who look to them for advice and help (Chauhan, 1995 pi).

3.4.3 India: March 2002

- **Objectives**
  1. To explore the possibilities of a collaborative research project with researchers from India, Gauhar Raza from the National Institute of Science Technology and Development Studies (NISTADS) and Hettie Du Plessis from Pretoria Technikon, South Africa. The invitation to visit India to discuss the possibility of collaborative research came about as a result of meeting both Raza and Du Plessis at a conference in South Africa at which a paper was presented discussing the initial findings from this research project. Raza and Du Plessis’ research to that point had focused on Indigenous Technical Knowledge. During their initial research work in India, Raza and Du Plessis had identified a potter colony in Delhi that had expressed the need for design training.

A further objective of this initial research trip was to investigate the possibility of delivering design training workshops for this colony.
2. To meet contacts from IITD identified during the literature review.

3. To meet the head of NID Delhi to discuss their approach to design training for the crafts sector.

4. To conduct an informal interview with Caroline Banks, a designer working for VSO in northern India, identified following a research visit to the VSO head office in London UK, in December 2001.

- Outcomes

1. Exploring research collaborations
   In the early part of the visit, discussions took place with the potential research collaborators, but at that time it was not possible to find common ground between our different research agendas and so the project idea was shelved. The contacts were, however, continued and as well as being gracious hosts, a day’s visit to an urban potters’ colony (as mentioned above) in the suburbs of Delhi was arranged by Raza, along with a meeting with a senior member of faculty in the National Institute of Fashion and Technology (NIFT).

The potters’ colony
   The potters’ colony\textsuperscript{74} comprised of approximately ten workshops, whose output varied from devotional items to garden products. Of the range of traditional products made by potters in India, flowerpots are still very popular. Aside from one workshop making devotional sculptures, all of the workshops made items for the garden. At one end of the spectrum, these were simple disposable pots to be used in nurseries. At the other end of the spectrum, one crafts person made bespoke garden ornaments and furniture to order.

   Within the group, there was a range of types of operation with batch producers of simple products, as well as one or two entrepreneurs producing design-led products made in small quantities for the growing middle-class markets of the city.

\textsuperscript{74} The term ‘colony’ is used in India to denote a concentration of crafts people who live and work in the same area of a city. Families often run more than one workshop and collaborate on materials’ preparation and manufacture. In some cases caste is a factor in defining these concentrations, but equally Muslim crafts people would form groups in a similar manner.
In hindsight, the visit to the potters’ colony was probably one of the most useful elements of this trip. It provided an excellent opportunity to observe an urban production environment for terracotta crafts people. Later in the research when I visited the potters’ colony in Narayanpura (4.4), I was able to compare the differences in the use of space, technology and product range.

**The National Institute of Fashion and Technology**

The meeting in NIFT was with Jatin Bhat, chair of the accessory design department. He described a recent collaborative design project in Kutch, which was an NGO-funded project in response to a major earthquake in the region. The project took the general form of design exposure involving designers working alongside crafts people to make new and revise old products. The project ethos was described as “crafts people and designers on a journey”. The project offered a useful insight into alternative means of design-led interventions in a crafts context. In particular, the role of designers as mentors facilitating an environment of co-working which allowed the crafts people to develop and learn new techniques and approaches, was seen.

**2. The National Institute of Technology Delhi (IITD)**

This meeting resulted in a contact made with Professor Lalit Das (LD). As well as being the course director of the MA Industrial Design at IITD, he was also the convenor of the Rural Crafts and Engineering section of the Mahatma Gandhi Institute for Rural Industrialisation (MGIRI). This meeting resulted in an invitation to collaborate on the delivery of a workshop for furniture crafts people in Dehradun later in the year (Phase 2). References are made to the outcomes of this meeting in other sections of the thesis.

**3. Meeting with staff from the National Institute of Design in Delhi**

In addition to discussion on their policies and practice on outreach, they also arranged for me to meet a number of designers (NID alumni) in two different consultancies in the city, as well as meeting with CoHand (a handicrafts development department of the Indian Government). These meetings provided more information about the broad spectrum of responses to the need for design training in the crafts sector in India. This includes short-term design training, crafts marketing initiatives, regional and national crafts fairs and appropriate technology initiatives aimed at manufacturing. The meetings with designers who had been trained at NID provided insights into the
spectrum of design activities open to Indian designers. In one consultancy, the designers were working for large multi-national companies such as LG and at the same time running small-scale design interventions for crafts people. In the other consultancy, they ran a small boutique shop alongside the design consultancy, which sold items made by local crafts people but under the design direction of the consultants.

4. **A meeting and informal interview with Caroline Banks**

At the time of the interview, Banks was a designer working for VSO who gave some insights from the perspective of a designer intervening on behalf of an NGO. Banks was a British fashion design executive who took a career break, joining VSO as a designer for the marketing of hand woven silks. Her role was to encourage design awareness in manufacturing cooperatives, emphasising quality issues and recommending colour palettes suitable for a western market. The key insight from this interview came from a discussion about risk, which she expressed as a ‘fear of failure’. The issue of risk is discussed in more depth elsewhere in chapter 3 (3.2.6).

- **Reflections on India**

A number of the designers and trainers that I met during the trip expressed the view that a combination of educational programming and cultural factors had led to crafts people being unwilling to become involved in design and new product development activity, which by definition involved risk and experimentation.

According to Raza, the knowledge of materials and processes including skill levels held by crafts people is very high (Raza, G. and Du Plessis, 2002). This information, gathered by Raza and Du Plessis using mass data gathering techniques, relating to the recognition of existing knowledge informed the design of the training interventions in this study. This concept is reinforced by Poston from the context of artisan training in Africa, emphasising that design training should not seek to replace or displace this knowledge but use it as a foundation on which to build (Poston, 1994 p2).

These observations led to the reflection that any future design intervention would need to be conducted in a manner which emphasised the importance of empowering local design skills and practices.

With some of the terracotta artisans visited during this visit, there was evidence of innovation and entrepreneurial activity in a small minority of the crafts people visited.
Working with such individuals may serve as a model for further development of the sector.

According to the Indian academics that I visited, training in innovation and design, which used to exist as part of the traditional training process of crafts people, was eroded and all but destroyed during the colonial period, a view supported by Balaram (2005 p12). Crafts people were required to work to given designs and became, over time, skilled labourers as opposed to crafts people who initiated new designs (Ghose, 1995 p193).

This has resulted in the recognition by government and other organisations that there is a need for training and support for crafts people to enable them to find a new place of sustainable livelihood in modern Indian society.

Discussions with academics at NID, NIFT and IITD formed the impression of a dislocation between the type of products that crafts people make and the products that the markets want. It was found that the products of a number of traditional crafts often seemed to be irrelevant to the growing modern markets and relied solely on a devotional or spiritual demand.

However, when these crafts people were encouraged, via design interventions, to produce new products which used traditional skill sets but drew on alternative references, the resultant products were, according to the workshop facilitators (NID, IITD, NIFT), often very marketable and following this experience the crafts people often then experimented with new designs for similar products. This was borne out by my experience of crafts people involved in a workshop in Bangalore in January 2004 and also in interactions in a village context during 2004/5 (4.4.4 and 4.5.6). These observations in turn highlighted the need for artisans to be made aware of the market for their products and how to gather information from customers for new products and improvements to existing products. This is echoed by Ballyn, in a recent paper for a conference organised by the International Labour Office in Zambia (Ballyn, 2002 p11).

The meetings with practising designers provided insights into a range of practical design interventions. One group visited had extensively commissioned local crafts
people as the makers of objects they had designed, which the designers then sold in retail outlets. At this point in the research, this was not seen as major problem but rather a part of the spectrum of activities which designers could get involved with in assisting the crafts sector. On reflection, having gained more experience in this sector and having refined the aims of the research to focus on design training; this type of approach was avoided in later fieldwork interventions as it did not fit with the aims of this study. This approach has few things to recommend it in terms of the development and empowerment of the crafts people as autonomous producers and in addition, the crafts people are in danger of being at the mercy of the commissioner/buyer regarding the sustainability of their business.

During this observation and orientation phase, six different approaches by a range of organizations (Motivation, NID,IITD,VSO,CoHAND and NIFT), were identified, observed and analysed and then reflected in the findings of this section. A comparative analysis of these approaches can be seen in Appendix 4.
3.4.4 Findings

1. There are many similarities between the new product development goals and aims between crafts persons and large companies. In both cases, new products need to be cost effective, market led, of an acceptable level of quality and provide differentiation in the market. (India, Das see: Appendix 4 p17).

2. Training needs to be relevant to existing materials, facilities and resources for crafts enterprises (Sri Lanka).

3. Indigenous skills need to be recognised and taken into account when designing training interventions (Sri Lanka and India) and (Raza, 2002).

4. Sketching is used by crafts people who have not been formally trained to develop and communicate design ideas (Sri Lanka, Mines).

5. Fear of failure and the consequent loss of reputation by a crafts person is a limiting factor associated with engaging in innovation in some situations (India, Banks).

6. Training-trainers is a strategy, which promotes the sustainability of training interventions (Sri Lanka).
3.5 Summary of key findings from the critical review

1. It is timely to conduct a structured study into the appropriate role and impact of design training in development contexts.

2. There is a well-established need for design activity and consequently design training in the development context.

3. Design training should follow established intervention protocols taken from best practice in development studies, to limit the risk of undermining existing design practices.

4. Training interventions should recognise and complement existing local training methods and practices.

5. Design training should emphasise new product development practices that are relevant to the local context.

6. It is important to identify existing skills and knowledge as a basis on which to build further training interventions.

7. When training groups of crafts people, it is helpful to identify those who are naturally innovative and use them as role models. These people are also likely to be those whose work will benefit most from training in the long term. Ability in 2D and 3D sketching is an indicator of such ability.

8. Training interventions should be designed to utilise both the 2D and 3D sketching abilities of participants as valid strategies for the development and communication of new designs.

9. It would be helpful to adopt a series of principles taken from PDA in order to facilitate an approach to people and environments in development contexts.

10. Training interventions should focus primarily on the design of products for local markets.
11. Exercises taken from PDA provide a helpful model on which the design of training interventions can be built.

12. Time is required to understand the particular development context in which the target group is living and working and to build relationships in order to make development interventions more sustainable in the long term.

13. Training interventions need to be relevant and applicable to the materials, facilities and resources available to the training participants.

14. The inclusion of exercises which incorporate games and aspects of fun are an important aspect of a successful training strategy to maintain energy levels and help to level relationships within the training group.

15. There is a role for design thinking to be applied in a broader context as a problem-analysis and problem-solving strategy.

16. Design training interventions should bear in mind the context in which crafts people operate and tailor interventions to minimise risk and maximise immediate benefit.

17. Design training interventions should adopt a strategy of training-trainers in order to facilitate the sustainable propagation of the training materials and message.
Chapter 4: Learning from the field

4.1 Introduction

This chapter reports on and discusses the fieldwork element of the project, the fieldwork falls into two main elements: the first drawing learning and experience from existing practice in design training, and the second devising and testing a range of training strategies building on this prior learning. Finally I drew together a series of principles, and observations with the purpose of informing future design training initiatives.

As the research progressed, it became clear that my learning drawn from interactions with crafts groups could be categorised into two main areas; that which relates to how the training participants are approached and that which relates specifically to design training workshops. The first area is reported and discussed under the heading ‘Approaches to the Field’ (4.2) and contains learning which was drawn from the whole of the fieldwork experience in this project.

The second area relating to fieldwork is dealt with in two distinct sections:
1) Initial Experience and Experimentation: phase one (4.3 and 4.4)
2) Immersion, Development and Testing: phase two (4.5)
This reflects the way that the fieldwork took place and how the research developed as a result of experience gained in the field.

Following the period of observation and orientation (3.4), the Indian subcontinent was chosen as the geographical location for the field experiments. The means of selection for the location and local partners is discussed in 1.1. This geographical focus was further refined for the immersion phase of the field research (4.5).

- Co-facilitation and the design of training interventions
In the first two field experiments (phase one) I worked as a co-facilitator of existing training programmes run by established organisations in India. This situation had implications for the way the research was conducted; in these two experiments, although I was free to observe and engage with the participants as a trainer, I did not have the freedom to change the training curriculum. However, in the second phase of the field research, because I organised the two main field experiments, I was free to design, arrange and
implement the training interventions in accordance with the learning drawn from my 
research to date. For this reason, the majority of the findings from phase one (4.3 and 4.4) 
relate to observations and reflections on existing training practice and the development of 
strategies for approaching the people and context, as opposed to phase two (4.5) which 
concentrates on the implementation of design training.

The purpose of the field experiments as explained in Chapter 1 (1.1.3) was (a) to 
investigate and evaluate existing training programmes and then (b) to design, pilot and 
evaluate a series of design training strategies. In order to address (a) I worked as co-
facilitator on two training workshops which were part of existing crafts training initiatives 
(4.3 and 4.4). To address (b) I spent a period of twelve months in South India working with 
a number of different crafts groups. I used this time to design, pilot, test and evaluate 
design training strategies, purposefully testing ideas and emerging strategies with different 
groups and in diverse contexts. The culmination of this part of the project was the conduct 
of two main field experiments with different crafts groups in different environments. This 
allowed me to test the training strategy and evaluate its function in “…enabling local 
people to identify, analyse and provide sustainable solutions to relevant design and 
production problems for everyday use for local markets.” (1.1.3 Objective 4).

4.1.1 Initial experience and experimentation: phase one

This phase of the research comprised of two periods of field experimentation in the Indian 
subcontinent, working in collaboration with existing design training initiatives aimed at 
crafts artisans. The first was in December 2002 (4.3) and the second in January 2004 (4.4). 
For both periods of fieldwork in phase one, I was partially funded by INTACH75.

- **Field experiment 1: Dehradun, north India.**

  This experiment took place over twelve days in Dehradun, Uttarakhand, northern India. 
During the period of observation and orientation (3.4), I visited Professor Lalit Das (LD) of 
the Indian Institute of Technology in New Delhi (IITD). The background to this contact is 
described in section 3.4.3-2. As a result of the meeting, I was invited to help with the 
facilitation of a design training workshop for furniture crafts people. The workshop, the 
third in a series, was funded by the Mahatma Gandhi Institute for Rural Industrialisation 
(MGIRI) and Professor Das was the coordinator of this workshop series. The workshop 

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75 The Indian National Trust for Arts and Cultural Heritage (INTACH), as its titles suggests, is an 
orGANIZATION which supports the arts in India. One of its foci is to support research visits to India in the 
area of art and design. For further information see www.intach.org. - retrieved 10.4.12
was hosted by the Forest Research Institute (FRI) at their main base in Dehradun and the Kadhi and Villages Industries Commission (KVIC) assisted in the recruiting of crafts people for the workshop via their network of offices in the region.

- **Field experiment 2: Yelahanka, near. Bangalore, South India.**

The second field experiment took place over six days in Yelahanka, Karnataka, South India. The opportunity for this field experiment resulted from a meeting with Poonam Bir Kasturi (PBK) in the UK in August 2003. As a result of the meeting, I was invited to co-facilitate a workshop, which was part of a series of design training workshops under the umbrella of an initiative called ‘Continuing Education’. This initiative was initiated by PBK and was supported, hosted and funded by Srishti School of Art Design and Technology (Srishti), where she worked as a senior member of the faculty. The workshop was jointly facilitated by PBK, another local facilitator Renulka Savasere (RS) and myself, at Srishti’s main campus in Yelahanka, a small town in the northern suburbs of Bangalore.

The participants involved in this workshop were a small group of terracotta crafts people, the core group of whom lived in a village near to Srishti called Narayanpura. They were invited by PBK and RS as a result of being involved in an earlier training workshop as part of the same continuing education programme. This initiative also provided the context for other projects I was involved with during the next phase of the fieldwork (August 2004 to August 2005; see 4.5).

As a western designer and educator reflecting on my experience of the first two field experiments, it became clear that the possibility of a sustainable intervention in this situation was hampered by my lack of language and local knowledge. Taking a lead from development theorists such as Chambers (1983 p59 and 2005 p177) and following discussions with local Indian collaborators and partners, I decided that the main field experiments should take place within a long-term immersion in Karnataka, South India.

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76 This meeting was arranged by Mirjam Southwell, who at the time was an active researcher and author in the field of design in development and whose work has been referenced earlier in this thesis (3.3.3-3).
Chapter 4: Learning from the Field 4.1.2

4.1.2 Immersion, development and testing: phase two

The primary intention of the second phase of field experimentation was to immerse myself in the selected field situation for a sufficient time to begin to understand the situation in which the chosen crafts people worked. This research period was designed to facilitate the building of relationships with the crafts groups, learn the local language (Kannada), explore communication and training strategies and develop the principles of a strategy for design training interventions in this context.

- **Extended field experimentation**

As a result of my involvement in the second field experiment in Yelahanka, I was invited to work as a resident researcher in Srishti for twelve months from August 2004 to August 2005. The duration of the research period was influenced by two factors: the opportunity to apply for a twelve month leave of absence from my university and the fact that a one year period appeared to be typical ethnographic and anthropological practice in an Indian context, thus making it possible to observe the full annual cycle of festivals, rituals and seasons (Srinivas, 1976 p4).

Phase two of the field experimentation was therefore carried out through this year of living and working in South India. I was attached as a visiting member of the faculty to the ‘Continuing Education’ initiative, working alongside PBK in a range of projects. Alongside this work, I conducted a more focussed period of observation, recording and reflective engagement with one particular crafts group in Narayanpura. During this period of immersion, I pursued a number of opportunities which enabled me to test emerging ideas and helped me to understand the socio-cultural context of the training situations from a range of perspectives.

These opportunities were:

- An asset-mapping project managing a group of seventeen local design students, run over a period of three weeks in the home village of the chosen crafts group (Narayanpura), facilitated by an inter-semester project at Srishti.
- A focus on learning the local language, Kannada, as a key strategy in improving the accuracy of communications and building relationships.
- Two main field experiments, which tested the training framework with different crafts groups (in Narayanpura and Coondapoor), informed by the earlier work. These were supported by smaller experiments in Coondapoor, Hegoru and Kinhal.
Chapter 4: Learning from the Field 4.1.2

- Observation of the training framework being used in a workshop situation by two local (Indian) crafts training facilitators in two separate events (Narayanpura and Kinhal).
- Feedback on the final training framework from two local training facilitators and a small group of crafts people, via informal interview.

It is important at this stage to note that it was not the intention of this project to act as an impact study for a pre-designed training strategy, but to propose a design training strategy as the culmination of the study following a period of design, testing and evaluation with a range of crafts people. The need for an impact study to test any future use of the strategies and principles proposed by this project is recognised and discussed in the recommendations for further research (5.5).
4.2 Approaches to the field

This section reports on the exploration of appropriate and sustainable approaches during the fieldwork, which were then developed into a series of principles and strategies that could inform future design training interventions for crafts context in development contexts.

### Field experiments and interventions: phase one

**December 2002 - January 2004**

<table>
<thead>
<tr>
<th>Group</th>
<th>Date</th>
<th>Product</th>
<th>Material</th>
<th>Process</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dehradun</strong>&lt;br&gt;All involved in the furniture industry. All male</td>
<td>December 2002</td>
<td>Furniture for domestic use.</td>
<td>Green/coppiced Timber</td>
<td>Hand worked Traditional joints</td>
<td>Field experiment one: Dehradun, North India twelve day facilitated workshop</td>
</tr>
<tr>
<td><strong>Yelahanka</strong>&lt;br&gt;All involved in terracotta manufacture. Both male and female</td>
<td>January 2004</td>
<td>Pots, decorative items and religious products.</td>
<td>Terracotta</td>
<td>Thrown and hand worked</td>
<td>Field experiment two: Yelahanka, nr.Bangalore, South India six day facilitated workshop</td>
</tr>
</tbody>
</table>

**Table. 7 Field experiments and interventions: phase one (Note: main field experiments in shaded boxes).**
### Field experiments and interventions: phase two: August 2004 - August 2005

<table>
<thead>
<tr>
<th>Group</th>
<th>Date</th>
<th>Product</th>
<th>Material</th>
<th>Process</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narayanpura</td>
<td>January 2005</td>
<td>A three week exercise in conjunction with the students at Srishti using participatory research techniques to learn more about the crafts village</td>
<td>Asset Mapping exercise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coondapoor</td>
<td>February 2005</td>
<td>Clothing</td>
<td>Cotton</td>
<td>Sewn</td>
<td>Small scale experiment</td>
</tr>
<tr>
<td>Hegoru</td>
<td>February 2005</td>
<td>Clothing</td>
<td>Cotton</td>
<td>Woven, printed and sewn</td>
<td>Small scale experiment</td>
</tr>
<tr>
<td>Narayanpura</td>
<td>March 2005</td>
<td>Pots, decorative items and religious</td>
<td>Terracotta</td>
<td>Thrown and hand worked</td>
<td>First main field experiment</td>
</tr>
<tr>
<td>Kinhal</td>
<td>April 2005</td>
<td>Rugs (Zamkana)</td>
<td>Cotton</td>
<td>Woven</td>
<td>Training framework used by an independent facilitator</td>
</tr>
<tr>
<td>Coondapoor</td>
<td>June 2005</td>
<td>Clothing</td>
<td>Cotton</td>
<td>Sewn</td>
<td>Second main field experiment</td>
</tr>
</tbody>
</table>

**Table 8** Field experiments and interventions: phase two: August 2004 - August 2005. Note: main field experiments in shaded boxes.

### 4.2.1 Evolution of approaches based on field experience and testing

My approach to training evolved in response to experience gained in the field, building on learning drawn from the critical review. Interactions with crafts people provided the opportunity to experience, observe, record and analyse the way they developed products as well as the opportunity to test initial ideas about appropriate interventions drawn from the study to date. These were particularly centred on appropriate approaches to groups in developing countries in order to facilitate sustainable improvements in their product development practice. Some of this learning was drawn from specific cases of design interventions in such contexts, but the majority was drawn from development theory and in particular participatory approaches to development (3.2.2).

77 Note: The group of potters in Narayanpura who were involved in the training intervention in March 2005 were also the main group with whom I spent the majority of the twelve-month immersion and those involved in the ‘Asset Mapping’ exercise in January 2004. A large proportion of this group was first encountered in the training workshop in Yelahanka in January 2004 (4.4).
Chapter 4: Learning from the Field

4.2.2

Each interaction with crafts people allowed me as a researcher to gain experience, test this against theories from prior learning and experience gained in previous stages, and then reflect on this to inform the design of the next interaction. This cyclical process of reflective experimentation CRE is discussed in more detail in Chapter 2 (2.4.3). Examples of the learning drawn from this reflective experimentation process is discussed in the following sections; for example building relationships with crafts groups, understanding the village context and developing effective ways of communicating. This learning in-turn informed the design and delivery of the training workshops and facilitated the iterative development of an effective training framework.

4.2.2 Expectations

1. A participatory approach
   It was expected that a self-reflective approach would be effective as used in Participatory Development Approaches (PDA) in providing a framework of principles to guide my actions as the intervening party, with the aim of maximising the engagement of the local participants.

2. Timescales
   It was expected that sufficient time (preferably twelve months) would be needed in order to effectively understand, observe and record the people and environment and to build relationships with local crafts groups.

3. Language and communication
   It was expected that alongside communication via the local language, a range of alternative communication strategies would need to be developed with the participant groups.

4. Rewards and incentives
   It was expected that strategies would need to be employed to compensate crafts people who take time from their income generation to work with me and to encourage them to become involved in training interventions.
4.2.3 Field experiments and immersion

The skills I had gained as a designer and a design educator in the UK seemed initially to be of limited use, or perhaps more accurately, they needed the mediation of another set of skills drawn from the practical side of development studies in order to maximise their usefulness in terms of acceptance and sustainability of impact. As the project progressed and more was understood about the practical application of development theory, the building of relationships and the ability to communicate clearly in a local language were identified as being important. Both of these important aspects seemed to be intrinsically linked to the need to spend a significant amount of time in the chosen research context. Immersion was used as a research method and is discussed in more detail in Chapter 2 (2.4.3).

- Cycles of Reflective Experimentation

In the following section a number of areas are described in which the cycle of reflective experimentation CRE described in Chapter 2 was used as a means of learning and refining my approach to the crafts people I was working with. This process was followed throughout the fieldwork period beginning in the observation and orientation visits 3.4 being refined as I gained more experience and became more aware of helpful ways of working.

The annotated diagram of the cyclic model in Figure. 6 illustrates how the CRE was applied to the leveling of relationships, addressing knowledge hierarchies and eventually facilitating the exploration of existing technical knowledge. It shows how the cycles of preparation, participant observation and reflective evaluation built one upon the other within the wider immersion experience and helped refine my approach to the crafts people I was working with.

Figure. 6 is annotated to describe the cyclic process I followed in refining my approach to the crafts people. The preparation element in the first cycle of engagement was informed by learning drawn from development theory this theory was then tested as I engaged with crafts people as a participant observer. I found that in the initial engagements I was being treated as an expert and that my knowledge was valued over that which was indigenous. As I evaluated the engagement and reflected on this it resonated with elements of development theory, particularly Poston (1994 p22) and Chambers (2000). In the next cycle participatory theory was introduced to change this dynamic. The subsequent cycles were then informed
by participatory approaches using techniques such as, the use of humour, levelers and DIY to seek to address knowledge hierarchies and level my relationship with the crafts people by getting them to teach me skills using DIY strategies. This in turn led to the exploration of ETK using participatory techniques and in particular drawing as a shared activity. This then prompted the use of more group work using graphical facilitation strategies such as mind maps, flow charts and mandalas.

Other examples of CRE in action displaying in detail the interplay between observation, theory and the formulation and evaluation of strategies are given in sections 4.2.4, describing the use of participatory approaches, 4.2.5, a range of language and communication strategies; and 4.2.6, rewards and incentives to encourage engagement in the training. As this approach was pursued the crafts people became more engaged with the training process.

A good example of my learning which was prompted by following the CRE process was a group discussion about Existing Technical Knowledge (ETK) referred to in the third cycle in Figure. 6. This is discussed in more detail later in this section under Discovering Existing Technical Knowledge (4.5.6). This group exploration of ETK was facilitated by group drawing and learning from each other, the end result of this peer learning was a graphic training aid which was identified by the crafts people as being helpful in teaching their apprentices about the more technical aspects of firing.
• Building relationships

The concept of building relationships with a given population that may benefit from development interventions is covered in the development literature (Chambers, 1983 p61) and in particular by authors in the Post-Development School. Rahnema, in a critique of more time-limited development approaches, stressed the need for time to build relationships with any group as being an integral part of empowering them to define their needs (Rahnema, 1997 p397).
Given my limited experience of fieldwork, I decided that in order to ascertain the true training needs of a given crafts group, it would be important to have the time necessary to build some level of relationship with one group of crafts people. This process of relationship building required time and perseverance, took various forms and was often unpredictable; learning the local language played an important role in this process. The fact that I took the time and effort to attempt to learn the local language spoken by the majority of the crafts people and took the opportunity to practice with whatever small vocabulary I had, regardless of my looking foolish, was a key factor in my favour.

Early in my experience of working with crafts people in India, I became aware of certain expectations that were placed on me. These were, for the most part, preconceptions relating to stereotypes of nationality, history and language, etc., but also relating to the concept of honouring guests and those perceived to be higher in the social strata.

This dynamic of having to negotiate people’s expectations based on social stereotypes has been in evidence throughout my interactions with crafts groups in India. My response, which has been refined over the period of the project, has been to adopt a humble, open approach, taking time to reflect on the impact of my presence, bearing in mind some of the guiding principles of participatory development approaches (Chambers, 1999 p7).

Caste

The caste system in India is an important factor in understanding Indian society; according to a World Bank report, recent years have seen “a significant easing of the social divides” (Narayan, 2009 p49), but its influence should not be discounted. Whether caste is more or less evident seems to depend on the section of society one encounters, although, in a similar manner as it affected the class system in the UK, money has blurred the dividing lines to a certain extent (Srinivas, 2000 p125).

The status of a (non-Hindu) western foreigner in relation to the caste system is not clear. According to the rules which shape the system, they should be placed at the same level or below the untouchable (Dalit) at the lowest level of the caste system. However, in practice, probably due to a mixture of the after effects of the colonial period and an impression that all westerners are rich, they seem to occupy a place of elevated status outside the system. In a rural village, these hierarchies are particularly important as they inform expected patterns of behaviour. Even Indian people who are not used to this situation can underestimate their
influence. Chakravarti, an Indian anthropologist, describes the mistakes he made in this respect (Chakravarti, 1979 p44).

In the context of this dynamic of elevated status and deferential treatment, I experienced a distinct temptation to act in a paternalistic way, imposing opinions or prescribing solutions. I almost felt that it was expected. It was difficult to do anything to change these perceptions at the time, but I found that by following a continuous process of reviewing and analysing my thoughts and actions and testing these against a set of criteria (Chambers, 2002b p14), I was able to learn and progress as a researcher and training facilitator.

This process of self-reflection and self-limitation is explored by Chambers. He suggests that a respect for the poor limits paternalism. He describes ‘paternalism’ as outsiders approaching a given development situation from their own priorities as opposed to those of the poor. Respect for the poor, he suggests, will offset the potential for superiority and the assumption that the outsider knows more and knows best. This research approach can positively affect the way in which the outsider prepares for and enters the situation. However, in my experience, this represents only the beginning of an ongoing relationship, which needs to be continually reviewed and informed by observations and lessons from development theory. Chambers concludes his exploration of this subject by saying, “However much self-insight they have, outsiders will still project their own values and priorities... All one can hope is that the effort of trying to find out, of asking again and again and doubting the outcomes will check some of the worst effects of core-periphery paternalism” (Chambers, 1983 p141).

One of the major influences on me as a researcher and on the learning during the immersion period was the recognition that regardless of whether activities and experiences were directly focussed on the research study, all of the time spent in South India contributed to my learning and my development.

**Entering the village**

It is generally accepted that when an outsider enters a village, especially when they are intending to intervene in some way, that a meeting is sought with the leaders or elders of the village. These procedures are described in depth from a South Indian perspective in the book ‘The Remembered Village’ by MN Srinivas (1976).
In the case of entering Narayanpura, I was not able to follow the standard forms of etiquette for a number of reasons. The main reason was that the initial contact with the crafts group was made outside the village at the workshop in January 2004. The second reason was that the introduction was via a local person (PBK) who already had an established working relationship with one of the main crafts people, RK. The third reason is that visitors from the west, especially the UK, are held in high regard and therefore the usual forms are often relaxed.

Although I was not able to follow a more traditional introduction process to the village and its people, I was able to build on previous relationships and knowledge of the crafts village gained in earlier fieldwork (4.4) and as Shaffir and Stebbins emphasise, flexibility is a key factor in successful fieldwork (Shaffir and Stebbins, 1991 p1). Later in the fieldwork, there were opportunities to meet the influential people in the community (Narayanpura) and be welcomed more formally.

- Asset mapping
In January 2005, as part of an inter-semester project at Srishti, I initiated an asset mapping (see footnote 20 p51) exercise in Narayanpura village, with a group of seventeen students. Although the overall project was a part of the curriculum in Srishti, I took the opportunity to propose a project based in the village, which would help to inform this study. The project provided the opportunity to spend an intense period of fifteen days in the village, taking part in normal everyday life, including the Pongal festival and studying aspects of the wider community. This provided important background information on the village, the crafts people and the general socio-cultural context, and helped me to understand the broader environment which influenced these crafts people I had chosen to work with.

In order to minimise the financial disruption, four crafts people were paid to be facilitators for the project who represented a cross section of the village population, two senior craftsmen, one younger craftswoman and a young apprentice craftsman. These facilitators guided the students and myself in small groups looking at different aspects of the village. Because they were paid, I was also able to spend large periods of time talking or working with them without feeling that they were taking time from other work. The project also afforded me the opportunity to test and observe the reactions to PDA exercises and the

78 Pongal is a Hindu festival which takes place on the 14th January and is similar to the English Harvest Festival, marking the end of the farming season. For more information see: http://www.pongalfestival.org/what-is-pongal.html - retrieved 10.4.12
involvement of the students allowed me to observe and analyse how others implemented these ideas and principles.

The students were a mixed group between the ages of eighteen to twenty one, made up of six males and eleven females. Only three of these students spoke the local language (Kannada) and thus became the translators for the group; the rest spoke Hindi as well as Bengali, Punjabi, Marathi and Telegu. At different times during the project, staff facilitators came from Srishti but none of them spoke Kannada. The reasons for this lack of local language are explained further in section 4.2.5.

Understanding the village

Participatory exercises were used to explore the production and sales activities of some of the crafts enterprises in the village. These techniques were used because they were designed to maximise whole group involvement in the information gathering process.

Sales activities of some of the crafts groups were explored using a large chart on the floor marked with months of the year and volume of sales. This mapping exercise initiated a discussion about when the high and low points of production and sales were and how they related to the calendar of festivals and the marriage season. Following this discussion, some of the crafts people decided to explore the possibility of producing items in the periods of less activity in order to build up stock in preparation for those periods when high volumes of product were required. Maps were also created which showed where the markets were for each crafts enterprise and where the raw materials came from. The resultant information revealed the following information:

- The component materials for clay had to be delivered from up to 10km away, primarily because more local sources (a nearby lakebed) had been exhausted, but also because some crafts people had diversified into smaller more decorative items, which required a higher quality of clay not available locally.

- This community had traditionally used the fallen leaves and smaller twigs from local eucalyptus plantations as an ideal fuel for their kilns. However, due to the expansion of the greater Bangalore conurbation, speculative developers had recently bought up these plantations and so the long-term source of their fuel was in doubt.
Sustainability

Following this period of asset mapping, it became clear that although the main purpose of the training workshops was to test the developing training strategies as noted earlier in the thesis (3.2.2), when planning any development activity it is important to understand and take into account the wider implications of such activity. The purpose of this project was to research training strategies, using development theory as a guide in designing the training and in approaching the research subjects and context. Although it was decided early in the research that it was not feasible within the bounds of this project to conduct an impact study of the proposed training strategies, it was nevertheless important to be aware that offering training to crafts people may well have wider social, cultural, political and environmental implications.

In the case of Narayanpura, design training could result in a higher demand for raw materials and fuel, access to which is already causing problems. Alternatively, the argument could be made that access to these resources contributed to the formation of the potter’s colony in the village and factors outside the village had caused scarcity of these resources to be an issue. Design training could also have given the participants a competitive advantage over other crafts people in the village, but this problem was addressed by offering training to all potters in the village. The wider issue of competition between other types of craftsmen was not considered because there were no other types of craft in the village.

Mapping the village

A map of the village was produced which described its layout (Figure. 7). Following the principles of asset mapping (Kretzman and McKnight, 1993), the village was also mapped in terms of population, relationships, occupations, assets and collaborations.

As a result of this mapping of the village in terms of occupation and accommodation, it was found that the population profile of the village was unusual in that it was made up solely of Hindus and there were only two castes represented apart from the priest (who is generally a Brahmin). These two castes were the Vakkaliga or Gowda, who were farmers, and the Kumbhara, who were potters.
The Gowda were by far the richer of the two groups. Although each group owned roughly an equal number of houses, the majority of the land, as would be expected from farmers, was owned by the Gowda. Of the total population of two hundred and seventeen, the two caste groups represented about a 50:50 split, with approximately one hundred and five Gowda and one hundred and twelve Kumbhara. This number included people who were not active as potters or farmers such as wives, children and the elderly and infirm. In
addition to this, some of the men worked outside the village; for example, at least four villagers worked as drivers on either buses or lorries.

According to local contacts consulted at the time and the literature (Srinivas et al., 1979 p23), it was unusual to find such a polarised and simple make-up of a village with no other castes or faiths represented. The number of Kumbhara was also unusual to some degree, as a classic village make-up would generally only have one or two potters to service the needs of the population. What seemed to have happened in this case, based on the short oral histories gathered during the project, was that a group of potters had gathered in this location forming a concentration or colony. This pattern was more usual in the crafts colonies found in the larger cities like Delhi. In this case, although it was a rural situation, the proximity of Bangalore only 20 km away may have been a factor in the emergence of a colony-type model.

Based on my observations of a colony in Delhi in 2002 (3.4), the Narayanpura village crafts people seemed to operate in a similar way, with each production group operating independently, sometimes in competition, but in the main each having a slightly different product range and market. There was some evidence of collaborations between production groups during periods of peak demand or when particular facilities were required. Examples of this included sharing access to a kiln, which suited a new (larger or smaller) product, thus sharing the cost of a firing between production groups. Another example of collaboration was when one crafts person secured an order which was too large for them to fulfil in the time required, thus necessitating the subcontracting of the order to other production groups.

**Mela (Fair)**

At the end of the three week exercise, we arranged a small ‘Mela’ (Fair). Funding was secured to provide a ‘pandal’ (tent); an integral part of any celebration in South India, and some food was arranged. Tables were set up so that the villagers could display and sell their products and produce, both farmers and potters. We created invitation cards and learnt about the various etiquette issues of whom to invite and in what particular order. The event provided a positive way to end the exercise, allowing us the opportunity to thank the village and provided the villagers the opportunity to sell some of their produce to invited

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79 Production group: a small group of crafts people generally centred around one senior crafts person, usually assisted by family members and/or an apprentice.
dignitaries and guests. As part of this event, we presented two large-scale prints of the village map (Figure. 7) to the leader of the local Panchayat and the headman of the village. This presentation was enthusiastically received because Narayanpura is so small and it had not appeared on any of the national survey maps of India. The map was given pride of place in the village temple and in the Panchayat office. This event enabled me to be formally introduced to the leaders of this community, providing a good foundation on which to build further interventions in the village.

4.2.4 Participatory approaches

This section reports on and discusses the learning drawn from the application and testing of participatory approaches to this fieldwork.

Participatory approaches to development are a well-established means of people-centred development; their development and relevance to this project are discussed more fully earlier in the thesis (3.2.2).

In their application to this fieldwork, these approaches have been used in two distinct ways:

- as a set of principles to guide the interventions, specifically attitudes and behaviours and
- as a series of tried and tested exercises which influenced the design of training exercises

A self-critical approach, guided by tried and tested participatory intervention principles (Chambers, 2002b p 14) prompted me as an outsider to be aware of and to mitigate the negative impact of my presence in the crafts communities.

80 Panchayat is the most important adjudicating and licensing agency in the self-government of an Indian caste. There are two types: permanent and impermanent. Literally, a Panchayat (from Sanskrit pañca, “five”) consists of five members, but usually there are more; the Panchayat has a policy committee, however, often numbering five.

• **Attitudes and behaviours**

In the broader sense, the principles, which underpin participatory approaches, have been used to guide my intervention strategies. Chambers suggested that a start point for participatory approaches begins with an emphasis on our personal behaviours and attitudes as the intervener. He emphasised the need to understand our position as ‘uppers’ and theirs as ‘lowers’ if we are to begin to bring positive change (Chambers, 1997 p3).

In an earlier publication, Chambers reminded the prospective fieldworker of the dangers of an outsider’s viewpoint:

> There is no complete escape from the way outsiders project their ideologies and values into analysis and prescription, but at least we have identified two antidotes: first repeatedly to enquire and reflect upon what poor people themselves want; and second to return again and again to examples of the unacceptable, and to analyse these, rather than theoretical abstractions. A continuous enterprise of seeking to learn from the rural poor and of exercising imagination in seeing what to do is one way of setting directions and correcting course (Chambers, 1983 p146).

Chambers provides a list of reminders entitled ‘Start, stumble, self-correct’, which were used in this project as a guide to approaching the fieldwork:

- Critical self-awareness
- Embracing error (or failing forwards)
- Sitting down, listening and learning (not lecturing)
- Handing over the stick to the ‘lowers’ to become the teachers and the actors (Chambers, 1999 p5).

I used these principles in the design and implementation of the training exercises to ensure that wherever possible the priorities of the local group were being recognised. This was far more of a challenge than I had initially appreciated, because as a designer, I was constantly aware of having to hold back from suggesting solutions or ways forward. This is not a new scenario (Rahnema, 1990 p201) but one that needs to be highlighted to designers who intend to engage in design training interventions in developing countries as they, perhaps more than most, are used to suggesting or imposing solutions. This is a good example of where CRE helped me to refine my actions as a designer in this context (see 2.5.2 and 4.2.3). The following section describes more examples in which I refined my approach to the people I was working with by observing, reflecting and then making small iterative changes to my approach, such as the way I dressed and communicated and my choice of transport.
Chapter 4: Learning from the Field 4.2.4

- **Specific approaches**

A range of techniques were used in order to engage with the crafts groups, build relationships and understand more closely the situation in which they operated.

- Levellers
  - Do it yourself: a technique where the outsider puts himself in the position of learning from the local people
  - Clothing: as a leveller and an indicator of the trainees being comfortable

- Timing

- Flexible facilitation

- **Outcomes:**

  **Levellers**

As a British person involved in development interventions, I was treated with respect and deference, e.g. being offered the only chair in the house, etc. However, as my experience grew, informed by development theory, I began to experiment with ways to subvert these expectations, not in reaction or in any way to cause offence, but in order to find ways to build relationships that are more ‘level’. The concept of ‘levelling’ relationships or ‘reversing’ expectations is a key aspect of participatory development practice (Chambers, 1997 p146).

Each time I interacted with crafts groups, I deliberately sought strategies to ‘level’ the relationships I was building. Chambers described one particular way in which the outsider, or ‘tourist’ (Chambers, 1983 p199), can employ strategies to become less important. The choice of transport has long been a means of determining and reinforcing someone’s status, therefore travelling by public transport, bike or even on foot sends a clear signal to reverse expectations (Chambers, 1983 p199). I chose to send similar signals in my choice of transport: old and not new, local and not a foreign import. I therefore chose to purchase an old Ambassador car and borrowed a very old Bajaj motorcycle or ‘two wheeler’. In a number of cases early in the relationship, the fact that I had access to transport enabled me

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81 The Ambassador is an iconic Indian car. Originally manufactured by Morris it was taken over by Hindustan Motors after independence. Until recently the Ambassador was one of the only cars available, and is still the official car of all government officials. For more information see: http://www.hmambassador.com/inner.asp - retrieved 10.4.12

82 Bajaj is an Indian company, founded in 1926. It prides itself on being an Indian brand with links to the Indian independence movement. The closeness of the relationship is indicated by the fact that the founder was an adopted son of Mahatma Gandhi.
to provide assistance, giving lifts, delivering products, etc., which enabled me to provide tangible help, yet requiring little language skill.

These attitudes and behaviour-based strategies are discussed in particular in Chambers’ book ‘Ideas for Development’ (Chambers, 2005 p192). The importance of building a rapport with local people is also described in his earlier book, ‘Whose Reality Counts?’ (1997) In a section entitled ‘From reserve to rapport and frustration to fun’, where he described a range of participatory research and analysis approaches (PRA), which help develop rapport in a relatively short period of time (Chambers, 1997 p152). Later in the same publication, he discussed levellers and reversals in more detail (Chambers, 1997 p203), the aim being to erode and dispel the perception that you are the expert. The primary way in which this is done is to affirm local people as experts, asking for their help, advice and expertise.

My first attempt to engage with this type of approach was in a workshop for timber crafts people in Dehradun (4.3). As a facilitator, I chose to sit on the floor and get involved with the hands-on making of products. The primary means of communication about the design of these items took place without words, via sketching, mime and modelling. This illustrated another key area where I was actually and obviously a ‘non expert’ - the area of language. Choosing to try and learn as many relevant words and use them to communicate with the crafts people was an excellent way of breaking down barriers and building a more level relationship, which in turn helped to generate a more productive and less hierarchical training environment. Communication and language are discussed in more detail later in the section (4.2.5).

Figure. 8 shows me preparing vegetables before the Pongal festival in March 2005. This opportunity was taken to seek to challenge and reverse expectations of me as both an outsider and a male.
In some cases this would not have been appropriate and could have seemed insensitive, but in this case the level of relationship and situation was such that it was simply viewed as a curiosity and provided me the opportunity to ask more about the festival and its place and significance for the community and, in particular, for the crafts people.

**Do it yourself**

A specific technique used as a leveller is called ‘Do it yourself’. This puts the local people in the position of experts and the development worker as the “clumsy novice”. This is often done by offering to undertake a task such as some agricultural work or asking the local expert to teach a skill (Chambers, 1999 p11). In order to test this strategy for myself, I

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83 This image shows myself and Nimisha a female co-facilitator from Srishti (to my left) preparing vegetables with RK’s wife R and her niece B for the Pongal festival. It was taken during the asset mapping exercise in Naraynapura village, January 2005. (Photo Tanushri Bhat)
asked one of the crafts people in Narayanpura to teach me how to throw a pot (Figure 9). The task itself appears quite simple until you begin to try it, but as I engaged with the process, a vast array of people’s attitudes, practices, habits and preconceptions were uncovered, which may well have otherwise remained hidden.

The first response when I asked to be taught was that I would not be able to do it. One of the older men in the village said people have tried in the past but “English speakers don’t have strong enough backs”. My immediate reaction to this was, ‘Why refer to ‘English speakers’ rather than ‘white people’ or even ‘English people’ or ‘foreigners’?’ On further investigation, I discovered that it was an opinion based on the level of education someone has attained. If a person had managed to learn English, they were clearly well educated and had spent far too long in schoolrooms and not at the wheel, therefore their backs had become unused to the rigours of throwing. This is an attitude not dissimilar to that displayed by shop floor workers in my early experience of being a graduate designer in the UK manufacturing industry.

Once it was established that I was really only having a go at throwing to appreciate how difficult it was, I was allowed to continue. The next range of issues related to ritual surrounding the manufacturing process, equipment and workspace. Because the potter’s wheel is the primary source of income for the family, it is treated with great respect. Not only should it be treated carefully, it should also be approached in a respectful manner. Before I entered the area around the wheel, I was asked to remove my chapals (shoes) and only then was I allowed to enter the space set aside for throwing. This respect for the tools of one’s trade is perhaps best illustrated during the Ayudh Puja festival in October. The intrinsic link between the tools of trade, the crafts people’s skills and the ability to generate income are an integral part of an holistic spiritual world view which, although I was aware of, I didn’t fully appreciate its depth of significance. This was yet another reminder of the need to approach the crafts people in a sensitive manner.

84. The Ayudha Puja is a worship of whatever implements one may use in one's livelihood. On the preceding evening, it is traditional to place these implements on an altar to the Divine. If one can make a conscious effort to see the Divine in the tools and objects one uses each day, it will help one to see one's work as an offering to God. It will also help one to maintain constant remembrance of the Divine. In India it is customary for one to prostrate oneself before the tools one will use before starting one's work each day; this is an expression of gratitude to God for helping one to fulfil one's duties”. Retrieved from http://www.durga-puja.org/ayudha-puja.html. - 20.8.08.
Chapter 4: Learning from the Field 4.2.4

Figure. 9 JF attempting to throw a pot (Photo Tanushri Bhat June 2005)

Figure. 10 RK demonstrating how to spin a potters wheel (Photo J Fathers January 2005)
The act of throwing the pot was hard work. As can be seen in Figure 9, in order to adopt the correct position, it is necessary to bend double as the wheel is mounted on the floor. First, the clay is roughly centred on the wheel and then the wheel is brought up to speed. This is achieved by using a stick in a hole on the rim (Figure 10), which in itself takes a great deal of coordination, especially when trying to speed up an already spinning wheel.

The clay is then properly centred and the pot is thrown. Often a large lump of clay is centred on the wheel and a number of pots are thrown off the top, to save time. In order to be efficient, the pot should be fully thrown before the wheel slows down. The skill involved in this operation highlighted the wealth of existing knowledge in just this one act and the attempt to introduce me to some of these skills allowed the crafts people to demonstrate their superior skill. It also offered an excellent opportunity for humour. By the time I was finished I was covered in clay and the resultant pot was less than impressive. The stories of my inadequate attempts at throwing were spread around the village in no time and were a means of demonstrating my fallibility and making me more approachable. These efforts highlight the important but lengthy task of building relationships.

**Clothing: as a leveller and an indicator of the trainees being comfortable**

In the workshop in Dehradun (4.3), an issue arose relating to the clothing that crafts people wore. During the first few days of the workshop, some of the crafts people seemed to be hampered in their work because they had chosen to dress in more western-style clothing and shoes. After observing this, I discussed the matter with fellow facilitators and it appeared that this was because either the crafts people wanted to make a good impression, or alternatively, they may not have been made aware of the practical content of the workshop. As the workshop progressed, the participants tended to wear more appropriate clothes for manual work, which was particularly apparent in their choice of footwear. The bare foot seemed to be an integral part of these Indian carpenters’ methods of holding the work-piece and socks and shoes hampered this practice. The removal of their shoes then signalled that the crafts people had gained a level of comfort with their surroundings.

In the second workshop in Yelahanka, I was expecting a similar experience and to a certain extent, this was borne out. Many of the crafts people and women had clearly dressed up; wearing trousers as opposed to the more usual work wear of potters, which is the lunghi (a traditional wrap-around cloth ‘skirt’ worn by men - as seen in Figure 10), or in the case of women, a new sari rather than an old one. I discovered later, when visiting their village,
that they were not wearing their usual working clothes. In this case, however, the removal of shoes was not an issue, as it was common practice that everyone removed their footwear on entering a room or dwelling. The other difference was the type of crafts people. I did not observe potters using their feet as an aid to holding items they were working on.

As I came to discover later, the foot, at least in this part of Indian society, is seen as unclean and so anything that is trodden on or touched by the feet is tainted. Great care is therefore taken about what the foot touches. The practical reason for this is that shoes transfer dirt from outside so they are removed when entering the house; they are also removed, as discussed earlier, when entering a work space (outside) for reasons of respect. A foot, however, is seen as ritually unclean and should not touch or even pass over other items such as food utensils and also work implements.

This was vividly illustrated in an embarrassing incident in Narayanpura village towards the end of the immersion period. I was talking to one of the crafts people and was so excited that I was actually managing to conduct a conversation, albeit with both of us using English, Kannada and occasional Hindi words, that I didn’t think about where I was putting my foot. I absent-mindedly rested my bare foot on the potters’ wheel next to me and caused a small panic. The craftsman was both upset and embarrassed and, of course, I was embarrassed. I knew that the foot was considered unclean, so to step on such a respected and protected item was almost unforgivable. Following profuse apologies, the situation seemed to calm, and the future working relationship seemed to be unchanged. I would like to think that this was at least in part due to the level of the relationship which had been built up with the crafts people.

Reflection on this situation indicates a broader principle that the level of relationship with the local people will directly affect how unintended offences and mistakes are dealt with. Because mistakes are inevitable when entering an unfamiliar situation it is therefore important to place an emphasis on developing relationships with local people using this as a foundation on which to build any suggestion of change.

If training was held outside of the normal work context, the observed tendency was for trainees to wear non-work clothes for a variety of reasons, but primarily because they would be likely to meet new people. However, during workshops conducted in a village context, it was found to be possible to create a supportive atmosphere whereby the trainees
know the type of activities they will be doing beforehand and the type of people they will be exposed to, and they are then more likely to relax, to wear appropriate clothing and in turn be more focused and productive.

**What I wore**

The issue of clothing can also be extended to the training facilitator and it is linked to the idea of subverting expectations. I chose to wear kurtas (traditional Indian shirts) made from Kadhi with trousers and chapals. This choice of clothing seemed to help towards building an atmosphere of relaxed interaction. It was a deliberate choice to dress in a more traditional way than educated Indian people who largely wore western style clothing and follow the lead of other experienced Indian trainers in this context. This mode of dress appeared to help in projecting the impression of simplicity and respect for local traditions, minimising status given by clothes and conforming to local dress patterns.

This also follows the practice of wearing simple local clothing, as adopted by Mahatma Gandhi on his return to India from South Africa (Gandhi, 1927 p346). His decision later became a statement in support of the Kadhi movement and was adopted by the majority of the ‘Independence Movement’. Even today in India, politicians following this practice often adopt simple clothing for public engagements. The messages communicated by such choices are today often confusing, because the majority of politicians do not follow a simple life like the original political wearers of homespun did and are therefore often viewed with some cynicism. Nevertheless, these choices by politicians reinforce the notion of using clothing as a statement to identify with a group of people.

**Timing**

As part of this project, a number of different models of training were observed and tested. In all, I was involved in seven different training interventions (Table. 8). In the first five of these, I was involved as a co-facilitator and had no influence over the timetable for the workshop. It was only in the final two, which took place in Narayanpura, March 2005, and Coondapoor, June 2005, that I was able to decide, along with the crafts people, when the training should take place. All of the others followed a full-time model of training, which required the trainees to attend a workshop venue for a number of consecutive days, ranging between two and twelve.

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85 Kadhi: means homespun; it also was adopted as the name of a movement whose focus was to make India independent from foreign manufacturers. The manufacture and wearing of Kadhi came to embody independence; one of the abiding images of Gandhi is him sitting at a spinning wheel.
As part of the critical review, the issue of when to run training sessions so as to minimise the impact of interventions on the work of a crafts people was identified. As Kieron Crawley told me in an interview (3.3.3), part-time training allows trainees to keep working and thus limit any disruption on income generation. In addition to this, a general principle was drawn from PDA, which suggests that the timing of interventions should be arranged so as not to interfere with the work schedule of a given population; for example, meetings called by development workers should be held outside the normal working patterns (Chambers, 1983 p199, Chambers, 1999 p12).

Consequently, I decided to adopt a part-time model for the two final field experiments. The first in Narayanpura took place over six half-days, and although all of the planned material was covered, time was limited. Therefore, for the second in Coondapoor, a two week half-time model was proposed, which allowed more time to cover the material with less pressure, if time was lost for any reason.

**Flexible facilitation**

During the field experiments, I learned a lot through having to be open and flexible to the needs of the trainees. This was also emphasised as a key aspect of maximising the fieldworker’s experience by Shaffir and Stebbins (1991 p1). Maintaining a high degree of flexibility in the daily running of the programme helped with the engagement of the participants and unexpected distractions were used as the starting point for new learning and problem solving.

In the first field experiment in Dehradun, it was often necessary for the facilitation team to accommodate the inclusion of a wide range of activities alongside the design-focussed activities that competed for time during the workshops. These took the form of formal lectures, tours of the facilities and PR events, and were necessary additions to the programme to ensure a good relationship with the sponsors, funders and host organisations. In addition to this, extra time was taken by less predictable interruptions due to extreme weather and political unrest.

In later workshops that took place over a longer timescale, planning around the large number of local and national religious and state festivals became an important task. Adopting an easy-going attitude and planning for time loss was generally the only way to deal with such situations. The limits to this flexible approach came when the training
outcomes were in danger of being eroded. Daily reviewing of the aims and objectives of the training helped to maintain an appropriate focus.

The concept of time in different cultures is probably one of the most striking aspects of working away from one’s own environment. Maintaining an attitude to time which is based on one’s own culture is likely to add to an already potentially stressful situation and does little for the building of a rapport between the crafts people and any outside trainers. “It is an anthropological commonplace to state that perceptions of time…are culturally relative and culturally conditioned” (Seymour-Smith, 1986 p278). Awareness of this is no real preparation for the experience of trying to deliver a specific training outcome in a new environment and culture.

My previous experience of training and education up to this point had been structured around rigid timescales. As I gained experience in facilitating training in this context, it became clear that the ability to be flexible as a trainer and facilitator was extremely important. This stood in stark contrast to my experience of having to deliver increasingly inflexible undergraduate design education in the UK, with rigid criteria and an inflexible modular format. As an outsider, I had a choice of reactions. Either I became frustrated and tried to force through a particular planned programme, or I viewed the various absences, latenesses or interruptions as opportunities; attitudes and behaviour towards time needed to be managed in a consciously flexible way. As described above, interruptions were caused by a range of reasons and as I gained experience through the research period, I learned that it was unproductive to allow such events to affect my composure. The difference between how I reacted in the first workshop in Dehradun and the final field experiment in Coondapoork was marked. For example, when time was lost in the workshop in Dehradun due to a strike, I pressured the participants to make up the time and keep to the same deadlines. When faced with a similar situation in Coondapoork, discussions were held with the crafts people to renegotiate the design outputs, taking into account the loss of time. Striking a balance between productivity and a relaxed atmosphere is not always easy, especially given that every workshop had some form of presentation or exhibition at the end of the workshop that required some form of output. This change of emphasis, however, focussed on the learning process as opposed to the final product.

In addition to flexibility in facilitation, I also found that it was important to be flexible about the content of the training. This is a necessary element in most training scenarios, but
in this particular situation, the ability to be reactive to queries raised by participants and modify the content during the training sessions followed the principles of PDA and seemed to facilitate a greater degree of engagement by the trainees and so became of great importance.

The development of a training framework supported by a series of cards (4.5.6) made this flexibility possible, as in general each card represented one exercise that was in turn grouped into sections representing approximately a day’s work. Therefore, a day’s training could be moved quite easily at short notice and indeed, individual exercises could be taken and moved where they seemed to fit best, depending on the circumstances. The development of a loose-leaf format of training cards, held with binder rings, facilitated this flexible situation whilst at the same time still providing a helpful training structure.

Occasionally, I found that the objectives of my research conflicted with the multiple competing deadlines around me. When this happened I found myself feeling frustrated but also reflecting whether this was a valid reaction. Is it important to be ruled by efficiency and deadlines? Do the aims of the workshop marry sufficiently with my research aims to enable me to achieve my desired outcome and still serve as an effective facilitator for the workshop? Is it better to learn from the situations and connections that arise, as opposed to those which are planned? What strategies can be adopted to find a middle ground? The experience of these workshops enabled me to reflect on the need for flexibility in the design and facilitation of training (4.2.3) and resulted in more time being built into the design of workshops to make this possible.

4.2.5 Communication and language

As this study progressed, the issues of communication and language became increasingly important. As an outsider who did not speak the local language, I was immediately faced with the challenge of how to communicate. In all of the workshops, interpreters were available, but it soon became apparent that communicating through a third party raised as many problems as it solved. Learning the local language became the primary long-term strategy for addressing this challenge, which although it was a long and difficult process, as has been discussed earlier, commitment to this process produced additional benefits for me as a researcher and trainer.
A core activity of design is the thinking process, which Cross describes as “a way of analysing and addressing problems” (Cross, 1999 p29). Before becoming involved in design training interventions in a development context, the primary tools I had used to communicate this ‘thinking process’ had been through verbal means via discussion and relating examples. It was therefore a new and challenging prospect to find ways to communicate with little or no common spoken language.

Clear communication is a foundational element of training (Guijt et al., 1995 p22, Chambers, 2002a p10). Alongside a concerted attempt to learn the local language, I employed a range of communication techniques to supplement language alongside the use of interpreters. Each training situation is different for a variety of reasons. The crafts people in a certain area might have had more exposure to other languages; for example, they may have had to learn more English in order to compete in the marketplace or may have had access to education due to a local development initiative.

As a result of the offer to work with Srishti (4.5), the main geographic focus of the project became Karnataka, a state in Southern India. The language of the state is Kannada and along with the other Southern states of Kerala and Tamilnadu, this language has a different Dravidic root, distinct from the linguistic root of the northern Indian languages (Bindloss et al., 2001 p85).

In the initial field experiment in Dehradun (see 4.3), the issues of knowing the local language did not seem to be a significant barrier to communication. Although there were two or three people who could translate in the team, I felt comfortable in the main using alternative means of communication apart from English, such as mime, drawing and some strategic words and phrases in the local language (Hindi). This provided an excellent opportunity to begin to understand the delicate balance of skills and information required to communicate the design thinking process to groups of crafts people. I used this experience to design the model of engagement I proposed to use for the second field experiment with Srishti in Yelahanka. However, in South India, there was far less usage of English or Hindi amongst the crafts people. As a result of this, communication strategies formulated in Dehradun had to be re-thought. Learning the local language became a priority, as well as finding interpreters and working out efficient ways to work with them.
Translators and interpreters

In practical terms, it was necessary for me to rely on translators and interpreters throughout the research project. Finding people who could perform this function was an immediate problem to overcome. The staff and student body at Srishti were the obvious choice, but because they were drawn from across the subcontinent, many didn’t speak Kannada. Even for natives of Karnataka there was a preference to learn English and then Hindi, as these were the languages of the educated and the elite, so there were therefore very few Kannada speakers in the college. Because of the issues outlined above, access to people who could translate and interpret for me was limited. One of the primary reasons, which exacerbated this situation, was the lack of funds to pay commercial rates for these services. I therefore had to rely on favours and reward help given with payments in kind. In terms of written translation required later in the project for training materials, few of my colleagues in Srishti who spoke Kannada were confident enough to translate written documents that required the use of technical design terms.

One of the key challenges when using an interpreter was to be able to be confident that the message I wanted to communicate was getting across. These difficulties were discussed by Chambers when he highlighted “…the notorious difficulties and distortions of having to rely on interpreters” (Chambers, 1983 p9). This problem was not unique to me as a westerner; a number of the Indian design trainers that I worked with also didn’t speak Kannada and were also reliant on the services of an interpreter. This challenge was one factor which led me to make the training cards bilingual, in order to provide a structure for the interpreter to follow. This approach will be discussed later in the chapter.

Learning the language

In order to engage as fully as possible with the crafts groups, I intended to learn as much Kannada as possible. This, however, proved to be more of a challenge than anticipated. The small number of Kannada speakers described above meant that there were fewer people from whom to informally learn the language, therefore there were also proportionately fewer classes and opportunities to learn. One language tutor I approached for tuition informed me that the only people she now taught were expatriates and others from outside South India who wanted to learn the basics so that they could talk to their maids and drivers. This comment, coupled with becoming aware of people in Karnataka who had been born in the state but because of their status and education had not learned Kannada, led me to conclude that Kannada was a language which was of lower status than Hindi, used by
Chapter 4: Learning from the Field 4.2.5

manual workers and servants. Eventually, after four months of false starts and trying to learn with locally produced textbooks, I found a local schoolteacher who was willing to help me. The learning style was based on verb conjugations and grammar as opposed to building confidence in conversational language and she had limited knowledge of the technical terms I needed to communicate the design process, but she was enthusiastic, wanted to help me as much as possible, and later became an invaluable help in translating the training cards.

Because of the status of Kannada, the time and effort I spent in learning to communicate in the local language produced the added benefit of good will and acceptance from the local people, which in turn helped to break down barriers and build relationships. In addition to this, during each interaction with the crafts people, I managed to learn one or two extra words, either from a translator or by a mixture of broken English, Kannada and sign language. These I wrote down and even this act, often done openly in the training context, was viewed as a positive sign of interest and engagement.

- **Strategies to make communication easier**

A major element of the project in terms of time and effort was taken up with developing strategies to facilitate communication that is more effective. This took a number of forms. Non-verbal communication techniques were developed from the early stages of the field experiments. I found that drawing was an effective way of communicating ideas and concepts and this was used during each of the experiments, both in one to one communications as well as in larger groups. It is also well established as a communication strategy in participatory development practice (Guijt *et al.*, 1995 p77).

Group drawing and mind mapping was perhaps the most influential way of using drawing, as it limited the need for verbal content and facilitated discussions and training sessions in a responsive and interactive way. Other established means of communication such as drama, role-play and humour were also used to a certain extent, with the support of a translator (Chambers, 1983 p208).

Other strategies, such as the use of stories and metaphors are discussed later in the chapter (4.5.6).
4.2.6 **Rewards and incentives**

Rewards and incentives were used as a means of encouraging crafts people to take time from income generation and spend it on training. According to the literature, crafts enterprises often exist on a subsistence basis with little or no surplus to invest in developing the business (Poston, 1994 p33). This was born out by Donaldson (3.3.3-6) and by discussions and observations during the fieldwork.

In order to encourage crafts people to invest in their business and to enable them to afford to take time away from income generation to train, it is often necessary to provide an incentive as a means of funding the shortfall in income that the crafts people will experience.

- **Reciprocal benefit**

The ethical dimension of the relationship between the people I was researching and me as a researcher was of particular interest. What were they getting in return for the information that I was collecting? Would there be any tangible benefit to the groups being researched?

In the early stages of the immersion phase in Narayanpura village, I explored and tested a number of ideas as strategies for rewarding the crafts groups for time spent with me. There was no one particular way that worked all the time, but my response changed over the research period, reacting to the information being collected, the experiences gained and the development of friendships within the group. Often, reward strategies would be of short-lived worth relating to a set of circumstances. This approach was also added to by the use of more formal payment systems being offered for any significant time involved in the research work (4.2.3), which is discussed further below.

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86 A range of ideas I explored alongside direct payment during this project as a means of rewarding crafts people:

- Buying products made by them worked well. However, this was limited in the long term because of the small range of products produced.
- Swapping labour and design expertise for research/interview time was explored but discarded, due to difficulties with communication and issues surrounding my perceived status. To suggest the idea of working for the crafts people would have caused more problems than it offered solutions.
- Another idea for swapping labour was to spend time with the son of one of the crafts people, helping him to practice his English (suggested by RK). This again was of limited effect, as the boy in question was very shy and didn’t seem to have the same drive to practice his English as his father (RK) had for him.
- Kudos was a possible benefit to the crafts people but it also had another side, because although a small group of outsiders visiting the crafts group brought with it some element of respect, at certain times it also was the cause of suspicion and jealousy.
• **Financial incentives**

Design training represents a significant investment in a business. A recent editorial in ‘Design Magazine’, the journal of the UK Design Council, suggested that although many would say that the benefits of design to business have been proved, the case was still being made for UK companies to invest in design (The briefing, 2007 p72). For crafts people in developing countries to take time to engage in such training they need to be convinced that their business will benefit. Based on observations gathered during the fieldwork, design training is not always easy to ‘sell’ as an immediate benefit to crafts enterprises; this is probably because its benefits are not generally seen immediately.

Crafts people who are experimenting as emerging designers may well make products that are less attractive or poorly functioning during the early stages of their development as designers, rather than the products made when relying on existing designs or copying from other sources. Kieran Crawley related an example of this in his interview (3.3.3-5). He described a group of crafts people who made traditional items, which to his eye as a trained designer were very attractive, highly resolved forms. However, when the same crafts people were asked to make an item themselves to answer a given brief, this apparent innate skill for form and proportions seemed to desert them. Crawley’s conclusion was that the original pieces had been developed over a long period and the skills needed to develop them were not necessarily held by the crafts people who made them. Given this scenario of training potentially interrupting the income stream of a given crafts person, it is appropriate to provide financial recompense at market rates for the time taken to train.

In India, there is an established practice, particularly in government-funded initiatives, to fund crafts people to attend training workshops; this payment is often called a stipend. In the case of the first field experiment in Dehradun, the workshop was funded by a government organisation (MGIRI) and in later workshops the stipend was funded by the organising body. The amount paid varies from workshop to workshop, but in principle the stipend is set at a rate that will reimburse crafts people of average skills for the earnings they will lose by attending the workshop.

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87 Stipend: In this context it is understood as a payment to recompense a crafts person for attending a training workshop. This term needs to be understood by its local meaning, as opposed to that of a salary for an official such as a magistrate or clergyman.
For the Dehradun workshop in December 2002, the amount per day was Rs.80, which, at the then rate of exchange, worked out to be just over £1 per day. In Yelahanka in 2004, the stipend was funded by Srishti and was set at Rs.150, which worked out to be approximately £2 per day.\(^8\)

During discussions with both facilitators and crafts people in the second field experiment, it was confirmed that there is a wide range of income levels even in this small part of the terracotta crafts sector. For some, the stipend was more than they would expect to earn in the given time and was therefore an incentive to attend, for others it was less. A translated discussion was initiated to attempt to ascertain the feelings of the participants to the training and their motivations for attending. The more experienced and skilled crafts people said that they were committed to the longer-term development of their businesses and they saw the development of design skills as a key factor in this. Others appeared to be more focussed on the funds, requesting extra funds for any out of pocket expense.

The principle of paying crafts people to take time out to train is a delicate balance to strike in the long term. If this strategy is used too frequently, there is a danger that it could become a form of subsidy for crafts enterprises. In the long term, this is probably not sustainable, as it could skew the normal pattern of business development, providing support for enterprises which may not otherwise survive in the marketplace. In India, this strategy of funding crafts training is driven by the Government’s recognition that this sector of the economy requires extra support to develop and find its place in the overall economic model of the country.\(^9\)

This model of subsidising crafts people to build their skills base is also open to being manipulated. In both field experiments in Yelahanka and Narayanpura, some of the crafts people chose to bring wives and co-workers to the workshops. This practice can be viewed in at least two ways; either as a strategy to build the skills of the broader workforce who weren’t generally involved in production activities or it may have been a strategy to increase the stipend monies per production group.

\(^8\) During the asset mapping project discussed earlier in the section, RK told me that he set himself a rough production target of Rs150 worth of pots (selling cost) per day. In terms of cost of living it is difficult to determine how this relates, but in 2004, based on my experience of living in India, feeding a family of four on the sort of diet that I observed these crafts people ate, would cost a maximum of Rs20 per day.

Chapter 4: Learning from the Field 4.2.6

As Poston pointed out, investment in the development of a crafts enterprise is a luxury often pushed to the side by the pressing demands of survival (Poston, 1994 p33). In the case of design training it is my view, based on the experience gained during this study, that such interventions are valuable as a means of enabling and encouraging crafts people time to build their confidence in their design ability whilst at the same time limiting their commercial risk. Therefore, in the short to medium term, the principle of empowering crafts people by funding design training is one way in which these crafts enterprises can begin to develop into self-sustaining businesses.

As suggested earlier in the thesis (2.3) the use of financial incentives to encourage participants to become involved with research poses potential ethical issues. In the case of the crafts group in Narayanpura, I followed funding precedents set by Srishti. In the case of the group in Coondapoor, they were not paid a stipend, as they were all involved in the wider training project with CWC. In future training it would be advisable to understand the local situations and customs before following a strategy of paying trainees. This conclusion was confirmed on a recent trip to India (see 4.5.8).

It is recognised that the subject of access to finance is important to the development of such enterprises, as raised by Harris and Donaldson earlier in the thesis (3.3.3-4 and 6). Other aspects of financial support for crafts enterprises are not discussed in this section, as it is deliberately limited to providing rewards and incentives to engage with training. However, a recent World Bank study ‘Moving out of Poverty: The promise of empowerment and democracy in India’ (2009) suggests that in order to develop sustainable enterprises, access to finance must be seen as one component alongside improved market knowledge and links to markets. The report goes on to suggest that microfinance is not enough to assist such enterprises to develop and that access to larger loans, normally only available to larger enterprises, allow assets to be bought which are essential to support sustainable enterprise in a market based economy (Narayan, 2009 p52).
4.2.7 Principles of engagement drawn from approaches to the field

Following the field research, a series of principles was proposed as a guide to approaching crafts groups.

1. Participatory approaches

Participatory approaches can be useful to facilitate two different purposes.

a). To facilitate self-reflection and guide attitudes of the intervening parties

b). In the form of specific approaches directed to achieve particular outcomes.

2. Timescales

Sufficient time is required to understand the context in which crafts groups operate and to build relationships to provide a foundation on which to build training interventions. Building relationships with local people is an important factor in affecting how unintended mistakes and offences are dealt with.

3. Language and communication

Learning the local language even to a basic level is an effective way of breaking down social barriers and building positive relationships.

When using interpreters in a training workshop, in order to help them to accurately communicate the training message being conveyed, it is useful to provide them with a set of pre-translated illustrated training guides.

In addition to the strategies above, it is helpful to develop a range of complementary communication methods, which require little or no knowledge of the local language such as: sketching, modelling, acting and demonstrations.

4. Rewards and incentives

Crafts groups often have little or no excess resource to invest in developing their enterprises (Poston, 1994 p33). It is therefore important that any intervening party that requires time or resources from the crafts group consider some form of appropriate compensation. This works well as a means of replacing lost income if the crafts people understand the value of the intervention. However, in some cases incentives are needed to induce crafts people to become involved in training in order to be able to communicate potential benefits.
4.3 Experience and experimentation - phase one:

Field experiment 1: Dehradun, north India

This section reports on the first field experiment, the aim of this element of the field work was to take part in a design training workshop run by Indian design educators. The invitation to take part in this workshop meant that I could observe and participate as a co-facilitator of a training exercise for furniture makers. As this was the first opportunity for fieldwork, the frame of operation was still being formed, it was important for me to be able to observe and analyse existing practice. Using the CRE process during this workshop I was able to observe, experience and reflect on the training strategies employed, the way they were communicated and facilitated as well as observing and exploring crafts people’s attitudes towards innovation and the methods they used to develop new products. This process enabled me to compile an appropriate framework of principles on which to base a design training strategies.

4.3.1 Description

The workshop was the third in a series of workshops initiated by MGIRI under the rural crafts and engineering section of their rural industrialisation programme. The workshop was coordinated by LD as a staff member of IITD and as the MGIRI coordinator for rural crafts and engineering. The content of the workshop devised by LD was made up of both theory and practice elements, but primarily focussed on a project-based learning model. Each of these activities began with a briefing session outlining the project criteria. This was followed by a phase where the generation of ideas was encouraged, then an evaluation and selection phase, which merged with the three-dimensional experimentation and development phase. The whole exercise was then concluded with a group critique session. During these activities, the learning was supported by roving feedback from the workshop facilitators, which allowed for learning points to be highlighted and addressed as they came up in the design and development process.

The workshop began with an introductory exercise, which was designed to help the participants to relax, work with their existing skill sets and produce items which demonstrated their abilities. The observation of the exercise and the resultant products enabled the facilitation team to understand more about the participants, which helped with the final refinements of the training programme. The workshop timetable can be seen in Appendix 5, A.5.1.
Chapter 4: Learning from the Field

4.3.1 The aim of the critique session was to enable group feedback and peer group learning. This was done by asking the groups who made the product to present the plus points of their design to the wider group. A critique discussion was then held with the group facilitated by LD who provided a framework of criteria, covering aspects such as function, use and the target market. The group was encouraged by highlighting positive aspects of their design and key learning points were emphasised as part of the discussion. This peer learning approach will be discussed later in the section (4.3.5).

4.3.2 Aims and objectives

This part of the research was made possible by collaboration between myself and the team from IITD. Due to the specific nature of my research, my aims differed from the aims and objectives of the IITD team.

My research aim

The research aim of my involvement in this workshop was to observe, record and analyse the training strategies employed in the workshop run by IITD. In addition to this, as discussed in (4.2), I began to explore appropriate approach strategies to the trainees.

IITD’s aim for the workshop

The overall aim of the workshop series, as defined by the IITD team, was to explore methods of encouraging design thinking amongst crafts people, with the objective of improving income generation by addressing innovation, product quality and response to the market. It was their proposition that improvements in these areas would have a positive effect on the livelihoods of crafts people and contribute towards an arrest in the long-term decline in the craft sector (Das, 2002). This particular workshop was designed to address these aims with a group of crafts people working in the furniture sector. The specific focus of this workshop was for local crafts people to design furniture using branches as a source of wooden material. The aim was to train them in design principles with the theme of using branches as a sustainable timber source.

In terms of the sustainable use of timber, the theme of the workshop could be seen as a positive initiative, as the sustainability of timber has become a major issue in India.\(^\text{90}\)

\(^{90}\) For more information on the legal and illegal logging which is being blamed for deforestation in India see: http://www.wrm.org.uy/bulletin/98/India.html - retrieved 10.4.12
However, in terms of its practical application to the livelihoods of the participants involved, the proposal had a number of potential limitations. For example, if the crafts people were to be encouraged to use branches as a timber source, thus coppicing the trees as opposed to felling them, they would need training to gather the timber so that they didn’t damage the growth of the tree. They would also need access to plantations or forests with permission to coppice the trees. More importantly than this, as the majority of the crafts people in the workshop were employees of larger enterprises, then the choice of which timber to use would not normally be under their control.

This caused me to question whether the theme of the workshop and the exercises used were of relevance to the day-to-day work of the crafts people. The focus of the workshop was clearly training in design principles – it was not aimed at stimulating new business start-up. Unless the artisans decided to start a new enterprise which made furniture using such timber, the information from this workshop was of limited use. In addition to this, in the context of the furniture market in the subcontinent, there was little evidence that the use of branch timber in the production of furniture was a recognisable segment of the furniture market. The published literature on the subject, as highlighted by the IITD team and verified by personal research, was almost exclusively targeted at what seems to be a relatively small group of hobbyist, self-made furniture made from branch timber, based primarily in the United States of America and the United Kingdom. The set reference text of the workshop was ‘Making Rustic Furniture’ by Mack (1996), which is a collection of examples of this type of furniture production; an abstract of this was copied and provided for each participant.

A key lesson learnt from this experience was that training for groups of crafts people needs to be targeted at specific locally identified needs. In this case, there was no evidence of this type of furniture production in India, or the practice of coppicing to produce small branch timber which could be used for such furniture. This assumption was confirmed by the staff of the Forestry Research Institute (FRI) hosting the workshop, who were authorities on the subject of timber sources and production methods. This lesson would suggest the advantages of the use of participatory development approaches in future interventions as a means of identifying training needs which complement the market in which the crafts people operate. This judgement was based on and confirmed findings from the critical
review phase (3.5), which showed that unless training subjects are determined by needs being expressed by the crafts people and communicated in a way that facilitates immediate application, then it is unlikely that sustainable development will be achieved in the crafts enterprises involved.

### 4.3.3 Expectations

1. **The relevance of training**

   It was expected that training would be designed to use the materials and facilities available to the crafts people so that it is feasible for the training to be of benefit. Linked to this would be the expectation, drawn from learning from practitioners (3.3.3), that training would have some immediate beneficial outcomes to the crafts people.

2. **The recognition of existing skills and knowledge**

   It was expected that it would be important to recognise and understand the existing skills and knowledge-base of the crafts people in order to use this to inform the design and implementation of training interventions.

3. **Knowing the market**

   It was expected that design training would emphasise the importance of knowing the market for any new product, helping crafts people to identify new markets for products and that a key focus would be the design of products for a local market, which would provide local answers to local need.

4. **A relevant training model**

   It was expected that the training model selected for the workshop would take into account existing Indian cultural patterns and priorities for training and be appropriate and relevant to the trainee group. It is expected that the training in such a workshop would not follow a western design pedagogic model.
Chapter 4: Learning from the Field 4.3.4

4.3.4 Collaborative partners

Forestry Research Institute
The Forestry Research Institute\(^{91}\) based on the outskirts of Dehradun hosted the workshop, working in collaboration with the workshop organisers IITD. Dehradun is also approximately 60 km from the city of Saharanpur, which is a major centre for woodwork production. The close proximity of these two places was an important factor in the decision of where to locate the workshop.

In order to understand better the working environment of the participants, I stopped off in Saharanpur and visited a number of these furniture workshops on my journey from Dehli to Dehradun. As would be expected in a town that has a high volume of furniture production, the workshops ranged in size, but the majority were small, having basic equipment such as drills and band saws with a focus on the use of hand tools.

FRI as an institution had not previously been involved in the provision of training for this sector and, although it was viewed as an area of potential development, the workshop was seen as a one-off activity. The facilities available at FRI in terms of accommodation and timber expertise, along with the reputation of the institute, were also factors in its selection as a workshop collaboration partner.

Kadhi and Village Industries Commission
The local regional concentration of woodwork crafts people was the primary target population for the workshop. In total, there were twenty three participants involved who were selected by the local officers of the Kadhi and Village Industries Commission (KVIC)\(^{92}\), which was also part-funding the initiative. As an organisation, KVIC has an excellent network of local officers and contacts through which it disseminates information and opportunities aimed at the development of craft and village industries.

\(^{91}\) The Forestry Research Institute (FRI) is a long-established institution originally set up by the British colonial administration, with workshops and guesthouse facilities. Staff members are involved in research and development of timber products and processing techniques.

\(^{92}\) The Kadhi and Village Industries Commission (KVIC) is a statutory body by created in 1956, under the Ministry of Small-scale Industries and Agro and Rural Industries of the Government of India. Its remit is to support and develop small scale predominantly crafts-based industries. Khadhi is the Hindi word for ‘home spun cloth’ made famous by Gandhi and the Indian independence movement as a symbol of self sufficiency. For more information see: www.kvic.org.in - retrieved 10.4.12.
**Mahatma Gandhi Institute for Rural Industrialisation**

The Mahatma Gandhi Institute for Rural Industrialisation (MGIRI)\(^{93}\) was the main funding provider for the workshop under the rural crafts and engineering section of the MGIRI project.

**Indian Institute of Technology Delhi**

In this case, the design department of IIT Delhi, and in particular LD, was appointed as the coordinator of the rural crafts and engineering section of MGIRI’s activities. Professor Das runs a Masters course in industrial design.

- **The challenge of collaboration**

The practical day-to-day implications of running a workshop for which four organisations held some ownership and control (4.1.1) was a new experience. A further layer of complication was added by issues of public image and status, as each of these organisations was represented by a group of officials and dignitaries who had to be involved in the planning and the PR events. These latter events had the most impact on the running of the workshop as every opportunity was taken for a press launch, hosting of visiting dignitaries and a closing exhibition. This broad spread of organisers, facilitators and sponsors, which is common in India, took a while to get used to due to the range of the sometimes conflicting objectives and expectations from each of the groups. The reality is that such events cannot take place without this sort of support structure and the bodies themselves cannot survive without the necessary press exposure to highlight their successes. Therefore, such time constraints need to be factored in at the planning stage. These pressures to facilitate and sometimes even create PR material impinged on the design outputs of the workshop.

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\(^{93}\) The Mahatma Gandhi Institute for Rural Industrialisation is an Indian Government-funded initiative created in February 2002 as a development of the Wardha Institute, set up by Mahatma Gandhi in 1935. The purpose of this initiative was outlined by the then finance minister in the 2002 budget statement under the heading 'Rural Development', "The promotion of rural industrialisation would be helped greatly through capacity building and technology upgradation in Khadi and Village Industries". For more information see the 2002 budget statement for the Indian Government: [http://indiabudget.nic.in/ub2002-03/bh/bh1.pdf](http://indiabudget.nic.in/ub2002-03/bh/bh1.pdf) and [http://www.mgiri.org](http://www.mgiri.org) - retrieved 10.4.12.
4.3.5 Reflections

This section will discuss a series of reflections on the first field experiment. The headings encapsulate the areas of learning drawn from the experience gained during the observation, recording and analysis of this field experiment.

- The relevance of training and its environment

The measure of how closely a training intervention is matched to the existing work environment and tools and equipment used, will determine how relevant it is to crafts people and how it influences their on-going work practices. In his work with metalworking artisans in Manie, Zaire, Poston proposed that the training environment and tools used should reflect as closely as possible those used by the artisan in their own workspaces (Poston, 1991 p78, Poston, 1994 p91).

My first impression of the work environment was that it could not have been more different from the small furniture workshops I had visited in Saharanpur. The workshop was based in a large warehouse of similar dimensions to an aircraft hanger, so the sense of space was potentially an intimidating change to the workshop facilities the crafts people were used to. However, on reflection, it seems that although this space was visually very different in terms of tools and manufacturing facilities, after they had settled into a routine of working it was the way that the crafts people eventually used the space that became quite similar to existing practices in a small workshop. Some machinery was available such as a lathe, a planer and thicknesser, a pillar drill and a band saw, as would be the case in some of the larger furniture manufacturing workshops, but this was often more of a distraction than a benefit as it kept breaking down, so the crafts people returned to the tools they knew and sat on the floor to work, as is their custom.

- The use of traditional/western design pedagogy

It became apparent early on in the preparation phase for this workshop that the training model proposed by Das was based on design teaching methods he normally used in formal design education at IITD, whose theoretical foundation originated primarily from western design pedagogic theories (see 3.2.5). The critical review (3.2.6) had revealed criticisms of this type of teaching approach by Indian and other academics (Balaram, 1998 p58, 236

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94Preparation, programme design and planning for the workshop was conducted by email correspondence and in meetings in Delhi prior to the workshop.
Papanek, 1983b p61), as well as others from a broader development perspective (Poston, 1994 p78).

In this particular case, the teaching method did prove to be a flexible model for a responsive training strategy as explained below. In terms of my engagement with the training programme and my observations and recording of the workshop, this use of a skeleton framework based on a traditional design and development teaching model had two benefits. In the first instance, it allowed me to see where the approach was applicable and a good fit with the existing informal design practices of the participants and also where it wasn’t fitting and seemed to be uncomfortable. The appropriateness of this teaching model to the specific situation was evaluated by observation and analysis of the projects and exercises as they took place, discussion with the participants and other facilitators and application of my experience as a design lecturer.

In the second instance, it provided a familiar framework within which I could relax and operate as a workshop facilitator, drawing on my previous experience of design education. This allowed me to notice and observe more of the other dynamics that were playing out in this workshop, such as the role of team projects versus individual projects and also how individual crafts people worked within a team environment.

I found that the benefits of using a project-based training model were that it facilitated informal interaction by me as a facilitator with the crafts people at the level of individual small-scale design challenges. This in turn allowed me to demonstrate strategies for addressing such challenges in an individual or small group setting, rather than addressing the whole group. This approach, well used in western design education (often called studio cruising), appeared to enable the participants to relax and engage with the problem solving activity. Another benefit of this training model to the participants was the end of exercise critique sessions. This model was also used in later field experiments.

- **Appropriate training methods**

  A key issue which was identified during this workshop and which has continued to be of relevance throughout the research was that of appropriate training methods. This subject is discussed later in the chapter (4.4.5 and 4.5.6). Many of the crafts people probably would not have been exposed to formal education or training since they left school between the ages of twelve to fifteen years. With this in mind, appropriate communication strategies
needed to be employed in order to effectively empower the crafts people. The particular events that highlighted this issue were the delivery of training on wood theory to the crafts people in the form of several lectures. These sessions were offered by FRI and LD felt that it would offend them if he declined. Each of these lectures were three hours long, some of the information in the lectures was clearly of interest and benefit to some of the crafts people, but on the whole, the format in which it was presented did not engage the majority of the group. In addition, it reinforced the power hierarchies of the educated elite who were delivering the lectures. I discussed this approach at length with LD, as in my opinion it did not seem to be of benefit to the participants. He was of the opinion that this was an old fashioned and inappropriate way to train crafts people, but it had to be tolerated in this context because our hosts FRI were providing this element.

In balance to this, the use of a series of expert supported team projects, each building one upon the other, took place alongside and in contrast to the lecture-based inputs, making efforts to reinforce the content of these theory sessions where possible in the team projects. This approach consisted of discussions facilitated by a mixture of drawing, both at full scale and in sketch sheets, rapidly constructed rigs and role-play. This multifaceted approach meant the crafts people would explore new ideas and concepts in a non-threatening way, which placed the facilitator as part of the group. In many cases, I used my role as facilitator to inject humour into the learning, overacting or exaggerating the role-play to make a point. In this way, the existing knowledge that the crafts people held and their tacit knowledge gained by experience of using items could be drawn into the learning process. During these exercises I saw that when the crafts people were engaged in three-dimensional iteration, they engaged with the exercises with more energy, being able to use their highly developed making-skills in a more open and exploratory way.

The contrast between these two approaches to training (lectures and project-based learning) helped me to understand some of the factors required in putting together a rounded training programme that is appropriate and easily accessible to this type of participant group. As discussed above, training needs to be appropriate to the socio-cultural context in which it is delivered. It also needs to be communicated using strategies which are relevant and empowering to the trainee group.
Chapter 4: Learning from the Field 4.3.5

Following the experience of a range of different training methods in this workshop, coupled with reflection on the learning drawn from the literature and interviews with practitioners, it was concluded that a project-based model of training which focussed on specific design challenges and integrated theory into practical exercises was more effective for this target group. Therefore, when designing future training interventions for similar groups, a less didactic approach would be explored using models of student-centred learning and training exercises taken from participatory development.

- **Training for empowerment**

  During informal interviews with workshop facilitators (trainers) who were involved with the previous two workshops, it was discovered that the training strategy that was applied in these two cases was built around the skills of the invited facilitators. The intention was to encourage crafts people to produce artefacts in a creative manner via a close working relationship with a facilitator. A small team of crafts people was allocated to each facilitator, who was then responsible for encouraging the development of creative approaches to the production of artefacts. One positive aspect of the approach was the regular adjusting of the training programme in response to the participants through observations made by the facilitators. The negative aspect of this model, identified during informal interviews referred to earlier, was the tendency for the participants to assume the role of working for the facilitators, and that even with the most empowering approach there was an expectation for the balance of design ideas and innovative approaches to come from the facilitators. It was argued by the IIT facilitators that the participants benefited from this working relationship by observing and experiencing how problems were addressed, but the negative result of this model is that the participants could simply become skilled labourers, realising the design ideas of the facilitator. There was a conscious attempt in this third workshop of the series in Dehradun to move away from this approach and to follow a project-based workshop model.

  These issues of participants limiting themselves, or being limited to the production of artefacts as opposed to the generation of ideas are also displayed in the crafts people’s relationships with middlemen. There were a small number of middlemen who took part in the workshop. Observations of their behaviour and influence provided an insight into their relationships with crafts people with their inherent tensions and demands. Often the middlemen would attempt to redirect the aims of a project to their own ends, asking crafts people with whom they had a relationship to develop small sample products, which they
could then use in their product range. They would also act as interpreters because of their superior knowledge of English, which would in turn allow them to interpret instructions and discussions to a similar effect. This experience provides a vital insight into the power relationships at work between the middlemen and the crafts people. This observation confirms Ballyn’s statement in an interview early in the research (3.3.3) that many crafts people in developing countries are in dependent relationships with either middlemen or employers and are therefore not free to innovate or develop their own products. This lack of freedom extends to materials as well as product choice and it is therefore questionable in this context whether the training of crafts people in design skills can have any tangible beneficial effect on their livelihoods. This insight influenced the choice of partners for later field experiments, building in a bias towards small crafts groups who have some control over their product ranges. This decision is reflected in the choice of partners and crafts groups to work within the immersion phase of the study (4.5).

- **Initial audit exercise**

These exercises were used for two primary purposes:

1. To provide a non-threatening scenario where crafts people could settle into the workshop, engaging in an exercise using familiar skills and materials. As discussed earlier in the section, this was a means of reinforcing at an early stage in the workshop the provision of a conducive training context.

2. To provide a vehicle for the workshop facilitators to get an indication of the skill sets and level of proficiency of each of the participants, so that they could make any last minute adjustments to the content of the training, thereby ensuring that it was as relevant as possible to the needs and skills gaps of the trainee group.

Investigation into the use of such techniques revealed a number of different ways to use this type of exercise. In the workshops run by IITD prior to the Dehradun workshop, an initial exercise of one to two days was included, where the participants were asked to produce artefacts using skills and materials with which they were comfortable. This served as a means of auditing the skills and abilities of the participants in a non-threatening manner and was found to be particularly effective as an introductory element. Similar techniques were found to have been used in another training programme, the ‘Design for Profit’ course run by VSO, where artisans were asked to produce a favourite piece of their own work as the basis for an introductory discussion on good and bad design (Buckley and Crawley, 1994 p2) (3.3.3-5).
The introductory exercise in this workshop was a simple group exercise to make a basic easy chair to a given set of dimensions. Parameters were given for the legs and seat but the back of the chair was left open to interpretation. The exercise provided a picture of the skill sets and experience within the group and allowed the participants to settle in. The exercise provided the opportunity to do an informal base line analysis of the crafts people’s skills and to establish the culture of the workshop.

One drawback of the way this particular exercise was designed was that it allowed those crafts people skilled in carpentry to demonstrate their skills but didn’t necessarily allow other crafts people, such as carvers or turners to show off their specific skills. This limitation was important to note and bear in mind for the design of similar exercises in the future.

With regard to the specialist crafts people, specialist roles emerged as the teams settled and influenced the overall design output of each team. Those teams with a turner had the opportunity and challenge of involving lathe work in projects. Occasionally this was well done, but often it was a poorly thought through add-on to the design (Figure. 12a). These design decisions provided excellent opportunities for impromptu discussions as part of the roving workshop support, which was provided by all the facilitators of the workshop.
Figure 11 Briefing drawing produced by JF during the workshop (dimensions in inches)

In this exercise, the participants were also given a briefing sheet (Figure 11), which defined some basic parameters for the exercise. This allowed the facilitators to see how basic drawings were read and applied and, because the design input was purposely limited, the crafts people could concentrate on the manufacture, quality and function of the product. In the second phase of the exercise, the groups were given free rein to complete their chair by adding a back and any other features. The following images show the final designs presented by the four teams.
Each of the designs shows examples of innovation in the use of materials, the use of the natural forms of the branches and the use of material removal to produce features. This is particularly evident in image 12b (above), which shows a sectioned tree root used as the back rest. The crafts people were not accustomed to using timber in this form, and the use of chamfers to produce flat surfaces on seat and armrest areas seems to illustrate a desire to
Chapter 4: Learning from the Field 4.3.5

‘normalise’ the designs as well as making them more comfortable. Once complete, the chairs were used during the break times and for visitors, thus facilitating continuous informal feedback and evaluation on form, function and construction.

The evidence of innovation in the selection and use of particular pieces of timber highlights one of the less obvious benefits of this workshop. The fact that these crafts people were placed in this situation and asked to use this form of timber created a scenario which required them to develop innovative ways of applying their existing knowledge, such as timber jointing methods. The need to be creative when using scrap materials was also highlighted by Poston (1994 p33) and Donaldson (3.3.3-6).

- **Specialist crafts skills**

As a strategy to develop design skills relating to specialist skills, crafts people were separated from the main groups and treated as another project team; these small groups were given projects that related to their specialist skills. A good example of this was a small group of wood carvers who were asked to do an extended drawing study of the local plants and trees. The FRI campus provided an excellent environment for this as they had a large collection of trees and shrubs from across the Indian subcontinent. The crafts people were taken on sketching walks in the grounds and asked to draw from life. Later, on their own initiative they developed these sketches into designs for carvings. The drawings in Figures. 13 and 14, illustrate the naturally stylized form in which the carvers drew from life.
Figure 13 An example of a drawing created from direct observation of a plant by M S (Photo JF)

Figure 14 An example of a drawing developed later by the same craftsman as the basis for a carved design (Photo JF).
Chapter 4: Learning from the Field 4.3.5

The crafts people were then asked to translate these observations into surface patterns and carvings. As this body of work was developed, designs for small products were created in collaboration with one of the workshop facilitators. The bench shown in Figure 15 is one example of these collaborations, where the facilitator Nimisha Sharma guided the form of the piece, utilising the natural form of the timber, whilst the two crafts people M S and M A initiated the embellishment, drawing on the natural forms they had been studying.

Figure 15 Carved bench designed and developed by Nimisha Sharma (facilitator) in collaboration with Mohamed Salim and Masoom Ali (carvers) (Photo JF).

- **Existing technical knowledge (ETK)**

As a result of learning from the literature and from interviews with practitioners prior to this workshop, it was concluded that the recognition of ETK was a foundational element in the design of training interventions. It was therefore expected that it would be possible to identify ETK and that it would be used to inform further training (4.3.3).
During the workshop, this was confirmed. The idea of acknowledging the existing technical knowledge-base of the crafts people is an important building block in the design of relevant training interventions.

As I explored the existence of ETK during the workshop, I discovered that this group of crafts people displayed two main areas of ETK. The first area related to skills in joining, cutting, carving and manipulating timber and a deep knowledge of the characteristics, strengths and limitations of different timber materials. In this particular workshop, due to the limitations caused by the theme of branch timber, this ETK was often observed in the frustration of the participants being unable to fully utilise their existing skills and knowledge. Before the workshop commenced it was unclear how the choice of theme would affect the participants and the result of this experience reinforced the conclusion that training should be relevant to the ETK of the crafts group.

The other area of ETK related to ‘human factors’, basic anthropometric data and ergonomic concepts. As a part of the workshop design, these were emphasised in the majority of the projects. During discussions with the crafts people, it became clear that many of them possessed a clear and detailed understanding of the sizes required to make furniture. This information was generally accurate and in compliance with standard anthropometric datasets and accepted norms in furniture production, as established by texts by Dreyfus (2002) and ‘Pheasant’ (2005). However, as the subject was explored in more depth, it became clear that the information had been learned by rote and the principles behind the information did not seem to be understood. The gap in the participants’ knowledge seemed to be in the relation of such sizes to real furniture users. They had learned that a chair seat had to be eighteen inches from the floor, but the fact that this size was generated by average length of a person’s leg from the knee to the floor was not understood, neither was it understood that a person’s use of a chair and comfort in doing so could be affected by this measurement. An example of this occurred in the final workshop exercise, where one of the groups was asked to make a desk and bench for a junior school. Because all of their ETK related to adult sizes, the crafts people had little idea of how to determine the correct sizes for this type of furniture. This provided an opportunity for some training to extend the participants’ learning by underpinning the existing knowledge base with relevant theoretical principles communicated in an informal and accessible way. Initially, I attempted to explore this problem by discussion. However, it became clear that I was not able to communicate the key principles effectively via a translated discussion and on
reflection; I think that this was primarily because the interpreter didn’t understand these principles. As a way to overcome this challenge, I began to use a mixture of full-scale drawing (on the floor), making rough mock-ups and rigs. This full-scale exploration of ergonomic principles, coupled with ‘acting out’ the problem, proved to be an effective way to transcend language barriers and communicate the basic issues involved in designing for a range of people. On a broader scale, it became clear that techniques such as full-scale drawings, group sketching, role-play and rig making were effective in facilitating and illustrating discussions to explore, externalise and recognise ETK.

These two observations confirmed the finding that ETK needs to be understood in as much depth as possible in order to correctly inform the design of future training interventions.
4.3.6 Findings

1. The relevance of training
   Although the majority of the equipment used was applicable to the crafts people’s existing work situations, the material used e.g. green timber branches, had not previously been used by these crafts people and didn’t lend itself readily to many of the traditional manufacturing skills such as jointing and carving. In addition, the majority of the participants were employed in furniture workshops and were not therefore in a position to select new materials or apply some of the new design skills they had gained when returning to their existing employment situation. This influenced the design of future training interventions ensuring that training was relevant to the existing materials and facilities available to the crafts people.

2. The recognition of existing skills and knowledge
   Full scale drawings, group sketching, role play and rig making were effective in facilitating and illustrating discussions to explore, externalise and recognise ETK.

3. Knowing the market
   There was no evidence of any link between the chosen workshop focus on furniture made from green branches and an identified and viable market, either accessible locally by the participants or in the wider Indian context. This lack of connection to local markets was not expected or supported by findings from the critical review. This negative finding informed the design of subsequent fieldwork to ensure that training interventions would be linked to accessible markets.

4. A relevant training model
   Elements of a western design educational model facilitated informal interaction with the crafts people at the level of individual small-scale design challenges. This in turn allowed for the demonstration of strategies for addressing such challenges in an individual or small group setting rather than addressing the whole group. This approach enabled the participants to relax and engage with the problem solving activity. In addition, the use of group critiques at the end of each of the small projects facilitated peer learning.

The following findings were not expected and resulted from observations and reflections on the fieldwork experience.
5. **Drawing as non-verbal communication**

Drawing was useful in a number of different ways: Full scale drawing (often on the floor) enabled the explanation of ergonomic principles; drawing in a small group setting helped non-verbal communication of problem analysis and solution activities, as well as being used for two-way communication of design ideas and briefings for new projects.

6. **Base line skills analysis**

At the start of a training workshop, it was beneficial to use an exercise or exercises which provided the opportunity for the facilitators to conduct a base line analysis of the skills of the participants, which then informed the detailed design of the training intervention.

7. **Settling in**

A familiarisation period, involving a basic introductory exercise which allowed the participants to use their existing skills, helped with settling into the training environment, as well as getting to know and building relationships with the facilitation team and their fellow participants. This in turn helped the participants to grow in confidence, to engage more fully with the training exercises and to contribute their ideas.

8. **Three-dimensional design iteration**

When the participants were working in three-dimensional developmental exploration, the energy levels and active engagement increased noticeably. This was particularly apparent when comparing engagement levels when the participants were asked to attend lectures on theoretical subjects.
4.4 Experience and experimentation - phase one:

Field experiment two: Yelahanka, nr Bangalore, South India

This section reports on the second field experiment, the aim of this element of the fieldwork was to take part as a participant observer in a second design training workshop run by Indian design educators. As with the previous field experiment the opportunity to observe and analyse existing practice allowed me via the application of CRE to refine a framework of principles on which to base the design training strategies which were then tested in the immersive phase of the field work in South India (4.5).

This workshop took place in January 2004 and was conducted in collaboration with Srishti School of Art, Design and Technology (Srishti), a small independent design school in Yelahanka, which is a suburb of Bangalore, South India. It was facilitated by Poonam Bir-Kasturi (PBK), Renulka Savasere (RS) and myself. Srishti was chosen as a collaboration partner because of their extensive research work in the investigation of appropriate design methodologies for craft artisans (Chandavarkar, 2002, Kasturi, 2002b, Unakar and Kasturi, 2003, Lodaya, 2003). PBK trained at NID and had worked for over twenty years in this sector alongside other more commercial design activity. Her work has been used by a number of Indian government agencies as well as the Crafts Revival Trust in Delhi (Kasturi, 2002a, Mohan et al., 2003 p82). As with most of the contacts and opportunities for collaboration in this project, the contact with Srishti and PBK was a mixture of opportunity and persistence. Before meeting PBK, I had seen the ‘15 day’ film95 and read about their work in a publication by the Craft Revival Trust (Mohan et al., 2003). I was also aware that Srishti had been one of the hosts for the Development by Design conference in ‘DyD 2002’ (Thinkcycle, 2002).

95 In 2002, Srishti School of Art Design and Technology ran a 15 day workshop with furniture makers called “Listening to Craft”. In addition, an exhibition “Beyond the Crafts Bazaar” was arranged to begin a process of looking at government intervention afresh, as part of the agenda at Srishti to work in the area of craft. A film called ‘15 Days’ was also made as part of this process. More details – www.srishtiblr.org, retrieved 10.4.12.
Chapter 4: Learning from the Field 4.4.1

4.4.1 Description
This workshop was designed to explore and develop training strategies for crafts groups. The first workshop in the series was conducted in May 2003\textsuperscript{96}. Prior to my arrival in India, I was engaged in email discussions with PBK in which proposals for the aims and objectives of the workshop were discussed. These proposals were then finalised during meetings with PBK, RS and I, once I had arrived in India. One of the agreed principles underpinning the design of the workshop was to minimise training techniques that relied on facilitators talking and explaining. Instead, exercises were used that encouraged practical experimenting, culminating in a group critique / discussion. In addition to this, it was agreed that a theme of user-centred design should be adopted for the workshop. This format and its themes provided me with an excellent opportunity to observe and experience a different training model to the one used in Dehradun and to explore further how basic concepts of user-centred design and simple ergonomics theory can be communicated to influence the development of new crafts products. The timetable for the workshop can be seen in Appendix 5 A5.2.

4.4.2 Research aim
My aims were to maximise the opportunity for me to engage in participant observation and informal interaction and to further develop a range of strategies to critically describe and reflect on the field experience as a whole. This was to involve a journal, annotated images, informal interviews and structured reflection. Alongside this observation, interaction and reflection, I arranged for the initial testing of a participatory analysis exercise (the river). The aim of the exercise was to communicate the product development process in a graphical manner by group interaction as a means of and highlighting areas of knowledge, which needed to be addressed in further training.

These aims were discussed with the other workshop facilitators. I proposed that in order to minimise the disruption of my presence and to maximise the opportunity to observe the workshop, I would initially spend the majority of the time sitting at the edge of the room making notes and taking photographs. Later in the workshop I interacted more with the crafts people as they began to develop new products.

\footnote{\textsuperscript{96} This first workshop was hosted by Srishti at the main campus in Yelahanka and was also targeted at terracotta crafts people. Although there were plans to run a series of workshops and an ongoing design support system for crafts people, to my knowledge, due to staffing changes in late 2005, only the first two workshops took place. Although the workshops conducted as part of this study were supported by Srishti under this initiative.}
4.4.3 Expectations

It was expected that:

1. The relevance of training
   It was expected that training would be relevant to materials and facilities available to the crafts people so that it is feasible for learning to be applied to existing work practices and provide some immediate beneficial outcomes to the crafts people.

2. The recognition of existing skills and knowledge
   It was expected that it would be important to recognise the existing skills and knowledge of the crafts people in order to use this as a basis on which to design and implement training interventions.

3. Knowing the market
   It was expected that design training would emphasise the importance of researching existing and potential markets, thus helping crafts people to identify new markets for products. The expectation would be that products for a local market, which provide local answers to local need, would be a key focus.

4. Observing a training model
   It was expected that during this workshop, I would spend a large part of the time observing and reflecting on the training strategies used, their effectiveness in communicating training principles and how the trainees responded to them. It was expected that some form of introductory exercise would be used and compared with previous experience.

5. Participatory analysis
   It was expected that the designed participatory analysis exercise would have value. It would therefore be tested and evaluated in this workshop and that it would help to identify areas of need for training, thus providing a focus for the design of further training interventions. In addition, it was expected that participatory exercises would be shown to be helpful in design training and that learning would be gained to inform further exercises.
6. Communication via drawing
   It was expected that the use of large-scale group drawing in the exercise would be shown to be a helpful group communication tool and that it would facilitate a group discussion.

7. User-centred design
   It was expected that in order to facilitate the design of products which meet the needs of users, the principles of user-centred design would be emphasised. It was expected that exercises such as product, task and market analysis would be used in the training as well as role-play and full-scale mock-ups.

8. Three-dimensional design iteration
   It was expected that three-dimensional design iteration would be an important focus of the training strategy, using practical exercises to rapidly model and then discuss design ideas, as this approach mirrors the existing development practices of crafts people.

4.4.4 The workshop format
The workshop was organised as a five day non-residential full time course, based at the main Srishti campus in Yelahanka, near Bangalore. The crafts people were expected to arrange their own transport to the training venue and generally used the public bus - a journey of about 6 km, which cost approximately Rs 6\(^{97}\). Based on information and experience gained during the immersion phase I would suggest that this journey would not have imposed a serious hardship as they regularly travelled to Yelahanka to buy groceries and sell their products, and the stipend paid for the workshop was intended to cover basic transport costs. In addition to this, the crafts people were provided with a good quality cooked midday meal each day.

- The training environment
  To provide a base room for the training, Srishti allocated a teaching room to the workshop. PBK decided to hold the workshop at the design college because she argued that removing crafts people from their familiar surroundings provided a more focussed environment, reducing distractions and temptations to engage in other activities. There were

\(^{97}\) In terms of the local cost of living, in 2004, Rs 6 would buy a lunch of a masala omelette or egg curry and rice at a roadside dahba (food stall). It would also buy enough vegetables for two meals for a family of four.
disadvantages due to a lack of certain production equipment and materials, but this was mitigated to a certain extent by the availability of other facilities such as internet access and a library for research. This was an almost opposite approach to that proposed by Poston (1994 p123) and provided an opportunity to observe and document the strengths and limitations of this approach. In the training room, the majority of the furniture was removed and the floor was then covered with raffia matting. The crafts people were provided a basic kit of equipment including pens and paper. Clay was provided for practical exercises later in the workshop and the decision was taken to manufacture models and prototypes using only hand tools, so their usual manufacturing equipment, the potters’ wheels, were not available.

- **Facilitation**
  PBK and RS primarily conducted the facilitation of the workshop. As the workshop progressed, I chose to work alongside the participants in the micro-facilitation of individual exercises, so as to provide the opportunity for me to explore ways of interacting and communicating with the participants and to observe and reflect on the way the participants were reacting to the workshop.

- **The participants**
  The original group of participants for the workshop series were selected by RS, who approached a small group of local terracotta crafts people based in a village called Narayanpura, approximately 6 km from Yelahanka. RS had met some of these crafts people at a crafts fair in Bangalore sponsored by the state government. There was little evidence of a formal recruitment strategy, but this initial contact by RS had also led to some collaboration between staff in Srishti and some of the crafts people in the group on the early prototypes of a composting system in 2003. These products were later developed and now form part of a home composting business run by PBK.

  Of the sixteen crafts people who were involved in the first workshop (May 2003), eight returned to take part in this workshop, along with twelve new participants.

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98 For more information about this social enterprise business involving terracotta crafts people see: [www.dailydump.org](http://www.dailydump.org) - retrieved 10.4.12
4.4.5 Reflections

- Customer feedback

As an introductory exercise, the participants were asked to bring to the workshop an example of one of their ‘best’ products (it was left to the crafts people what criteria they used to decide which product to bring). The idea of the exercise was to get user and customer feedback from a group of students as potential customers. They were then asked to re-create this product using the feedback to propose improvements to it. This exercise was a variation on the theme of the ‘initial audit exercises’ first explored in Dehradun (4.3.2). This variation on the theme allowed the crafts people to show off their best work to the other participants and then use it as the basis for new product development, based on input from prospective users and customers.

This demonstrated in one exercise the basic principle that customer feedback is important in order to design a product that will meet market demands, enabling the crafts people to learn by their mistakes, in a controlled environment, the sort of market enquiry which would result in useful product development information. This exercise produced an excellent example of the type of change that customer engagement can bring about. One participant (H K) brought in a small statue of the Hindu God Ganesh, which was one of his specialities and a standard product (Figure 16). As he discussed the product with the potential customers and users, they covered areas such as the God’s characteristics and the type of occasions and situations when this particular deity would be worshipped. It was suggested that the product could be modified for use as a ‘desk tidy’, as Ganesh is often associated with education, communication and entrepreneurial activity. A new product was devised which incorporated a ‘mobile phone’ stand and penholder and also pictured Ganesh using a mobile phone (Figure 17). It is interesting to note that, according to PBK, Ganesh is the only God in the Indian pantheon that would be acceptable to depict in this ‘tongue in cheek’ manner. In this part of South India, Ganesh was a popular deity whose help was sought in all business and education activities. It was later discovered when the village was visited, that HK produced a wide range of themed Ganesh statues in which he was depicted holding different traditional instruments or sitting on a mouse, his mythical steed from Hindu texts. The introduction of modern ‘accessories’ therefore built on this existing design theme informed by customer feedback.
Unfortunately, in this case, it was not possible to find out if the resultant product idea was further developed and became a part of the product range of the craftsman.

Figure 16 A devotional clay statue of the Hindu God Ganesh, produced as a standard product by H K (Photo JF).

Figure 17 A concept model for a new product using the Ganesh figure but incorporating it into a ‘desk tidy’, following feedback from potential customers (Photo JF).

Note: The quality difference between the initial product (Fig.16) and the proposed modification (Fig.17) is due to the fact that the proposal was a rapid concept model and the initial product was part of a commercial batch for retail.
• Drawing and sketching

Drawing was explored in a number of different ways in this workshop. Individual sketching was shown to be a valuable way for crafts people to explore new ideas. Large-scale drawing as a group activity was also shown to be a useful means of focusing a discussion. This technique is commonly used in participatory development practice (Guijt et al., 1995 p77) and in this case, it was used as part of the river exercise.

The facilitators of this workshop, reflecting one of the norms of western design training, emphasised the importance of drawing as the primary means of exploring design ideas (Cross, 1986 p43). Their primary motivation was to encourage the crafts people to capture their ideas to form a catalogue for future reference, rather than the more usual development of ideas via communal drawing on the ground, which is later lost. Another approach, especially as photography has become increasingly affordable for the more successful crafts people, was to encourage three-dimensional iteration and to capture these efforts via photography. Both of these strategies were in evidence in the group of crafts people from Narayanpura.

One element of drawing observed during the workshop, which is common amongst trained designers but which I had not observed before in previous fieldwork, was the practice of describing and exploring the form of new products by drawing sections.

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99 RK owned a simple film camera to record his products and then used this catalogue during discussions with potential customers who wanted to commission a custom product. In 2004 simple film cameras were not expensive (Rs 200) and film developing was available in Yelahanka for a reasonable charge. (Rs 150 per 36 shots = £1.20 per film).
When questioned about the drawings, the crafts people called them ‘glass drawings’ (Figure. 18); it is unclear where this practice originated. As far as I could determine during the workshop, this was a locally derived term. A later discussion with PBK (personal communication 8th December, 2006) revealed that she hadn’t previously encountered the term. As she was the main trainer for all three of the workshops that this group were involved with in recent years, this seems to suggest that it was a descriptive term coined by this group of crafts people. It was discovered later in the immersion phase of the research (4.5) that this particular crafts person, as far as could be determined, had not had any previous external crafts training outside of the workshop series run by Srishti.

A possible explanation for the use of sections in drawing may be that the nature of throwing clay forms demands a specific type of thinking, which has resulted in this type of drawing being understood and adopted by the crafts people. As a result of observations at the time and in subsequent field experiments, it became clear that terracotta crafts people who throw pots often describe their designs using sections. A number of discussions between crafts people were observed where sections have been drawn in the dirt to facilitate group discussions on the merits of a thrown profile for a pot. Other evidence of
this type of sectional drawing from other crafts people was collected in a workshop conducted in March 2005 (4.5) from a group of crafts people from the same village (Narayanpura). The technique is therefore in use within this community of crafts people but it is unclear how or from where it was learned or adopted. This situation indicated that certain crafts people had existing skills and abilities in communication, which needed to be taken into account when designing future design training interventions.

- **Three-dimensional development**

One emphasis of this workshop was the importance of encouraging iterative development in three dimensions. Although this had been encouraged to some degree in the workshop in Dehradun, it was particularly apparent in this workshop because the medium of clay allowed for the rapid creation of developing design ideas. As had been previously observed both in this workshop and the previous one in Dehradun, the crafts people appeared to be far less comfortable drawing than working in three dimensions. There was a noticeable increase in energy levels and enthusiasm when the discussion and drawing gave way to making. As a means of maximising this enthusiasm, lists of transformation words were offered as triggers for developing the three-dimensional form. The original list was taken by PBK from ‘Design Synectics’, a book on creativity written by an American design writer (Roukes, 1988 p13). The original list had twenty-two words, although to simplify and shorten this exercise a group of seven words were used. These were selected by PBK, as those words which would be best understood by the crafts people were easier to translate into Kannada and which had the simplest transformative effect:

- Add
- Subtract
- Cut
- Merge
- Fragment
- Smaller
- Larger
In order to apply these words, the crafts people were asked to produce a small item that they were used to making. They were then asked to apply the words one at a time to the soft clay products. This was initially done as a demonstration by selected participants with suggestions and feedback from the group and later by individuals. In the image below (Figure. 19), the transformation words ‘add’ and ‘subtract’ have been used. The pot on the right of the image is the original form and the one on the left is the result of iterative 3D development triggered by the selected words.

![Figure 19](image_url)

Figure. 19 Examples of a three-dimensional iteration exercise guided by the transformation words ‘add’ and ‘subtract’ (Photo JF).

This technique was particularly effective as a design training tool, as it emphasised iterative creative exploration within prescribed bounds and with clear direction for new ideas. In addition to this, because the medium for exploration was clay, the crafts people were more comfortable and therefore freer to experiment. A number of new products were developed because of the application of this technique.
This theme of three-dimensional development was extended during the workshop with small rapid projects focussed on simple household items. One particularly successful exercise in this vein was based on the production of flower vases (Figure. 19). These were not a common household product in South India, but were becoming more popular with middle class Indians. They had been observed by the crafts people during the exposure exercises described later in this section (4.4.5). The functional aspect of these products was enhanced by PBK bringing in a selection of cut flowers of different types. A short exercise was set to design and make a vase for one of these flowers. In the first instance, this work was conducted overnight (as homework); the next day, a critique session was held and a second short exercise was run where the participants incorporated the learning from the group feedback. The products shown in Figure. 20 show a clear understanding of the functional requirements of this product and a development of the formal development skills, as well as some innovation of form displayed in the curved shapes.

Figure. 20 Examples of vases developed by eight of the crafts people as part of a three-dimensional iteration exercise during the workshop (Photo JF).
These exercises confirmed the expectation based on previous field experience and by findings from the literature (Guimarães, 1995 p289) that three-dimensional iteration would be an important training strategy. Crafts people who spend the majority of their time generating three-dimensional objects are more comfortable thinking and innovating in three dimensions. This was confirmed and reinforced during this field experiment, by observing enthusiasm and output in this mode compared to drawing activities. The exercises described above provided a helpful structure to guide and stimulate the iterative process, building on the existing new product development practice of the crafts people. Again, this situation indicated that certain crafts people had more developed existing skills and abilities, in this case in three-dimensional design development, which it was important to recognise and take into account when designing future design interventions.

It is interesting to note that the majority of the vases (Figure 20) are manufactured using a coiled method, which is not common in this group of crafts people (they would normally use thrown forms). Because wheels were not available, the restrictions of the exercise caused the crafts people to use a different production method. One of the results of this enforced change was that it was adopted by the women and younger men in the trainee group as a new and exciting manufacturing method for larger items. These individuals were generally not involved in the making of products in their entirety, but limited to the less skilled jobs, finishing and decorating items previously made by the older male crafts people.

- **Existing design skills (EDS)**

Following this workshop, a trip was taken to the nearby village (Narayanpura) where the majority of the participants lived and worked. During the visit, the crafts people who had been involved in the workshop showed me examples of vases they had developed since the workshop (Figure 21). These products demonstrated a level of existing design ability, which had taken the learning from the workshop and extended it to develop new products, which they were already testing in the marketplace via a roadside stall. What was particularly impressive was the fact that the crafts people had taken a product which they had previously not made and developed not only the design, but also a new way to manufacture them. Guimarães called these “informal design skills” (Guimarães, 1995 p290). The identification of these Existing Design Skills (EDS) in this group helped to inform the decision discussed later in the chapter to spend a year in South India working with this group of crafts people.
Chapter 4: Learning from the Field 4.4.5

1.

2.
These vases were evidence of the innovative development and production of single vases into multiple forms by RK. for the original single vases also see Figure:19. [R (left) and RK (right)]. (Images taken by JF)

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**Figure. 21** Images of double and triple vases developed in Narayanpura village\(^{100}\)

\(^{100}\) These vases were evidence of the innovative development and production of single vases into multiple forms by RK. for the original single vases also see Figure:19. [R (left) and RK (right)]. (Images taken by JF)
**User-centred design**

Following the reflections on the experience of the previous field experiment in Dehradun and discussions with the other facilitators, it was decided that user-centred design would be a theme for this workshop. User-centred design in this context encompassed the whole spectrum of design activities associated with the user, such as ergonomics, anthropometrics, task analysis, user trials, defining user need, etc. In order to maintain the practical training approach of the workshop, the subject was introduced using the foundation of the crafts people’s existing experience and knowledge as a start point. Kogi emphasises the role of participatory action-orientated approaches to train workers in the principles of ergonomics in small product development enterprises in a development context (Kogi, 1997 p.1124). In this context of small craft enterprise, my experience in these two field experiments indicated that awareness of human factors in design was at an even more basic level than described by Kogi, requiring the most rudimentary principles of user-centred design to be introduced. It was observed that user issues could be effectively explored via group work using role-play as a trigger for group discussion about how a product is used. The use of expert users was also seen to be a good way to get focussed user feedback. In this case, women in the group were asked how they used various domestic utensils in different modes of use such as cleaning, storage, lifting and cooking.

*Task analysis*

Another element of user-centred design introduced was the analysis of tasks and the exploration of the use of products using role-play. Selected participants were asked to select a product, for example, a storage jar, and then talk the group through the stages and phases of its use. This then formed the basis for a group discussion on the design and suggestions for improvements. At a smaller scale, the use of drama and role play with stimulus questions was used to analyse the function of lids or handles, for example, as a test of basic ergonomics, e.g. ‘Is it easy to hold?’, ‘What about when it’s full?’.

This role play facilitated detailed task analysis and group discussion which drew on the women’s expertise, providing expert advice on the shape and capacity of storage jars, or the facilitators advising on more western-influenced eating utensils.
Target market

The idea of user feedback relates closely to customer feedback, which again informs the design process. It was expected, following findings from the critical review (3.5), that marketing skills were important for crafts groups. When the process of interrogating potential markets was introduced to the participants, it was shown that teaching the participants how to interrogate the new markets via interviews and exposure to new customer environments raised their awareness of different customer groups and stimulated new product development.

One of the strategies used in this workshop for introducing key points of user-centred design was to ask the question ‘Who is it for?’ The initial response of the crafts people, when asked who a particular product was aimed at, was to suggest that the product could be aimed at anyone and everyone. The idea that a product should be aimed at a specific market seemed to be a difficult concept to grasp. However, once they engaged in facilitated discussions with potential users, such as a group of students, and during visits to two different houses (described below), they began to understand that in order to meet user needs, a product had to be targeted at a particular population with particular needs, aspirations and desires.

Initially, the participants were introduced to the idea of specific user requirements via a question and answer game involving a selection of products. A range of bags was displayed and the question was asked, ‘Who does this bag belong to?’ The game then progressed by asking which bag would belong to which facilitator, Poonam or James, and when would they use it? The game illustrated that these issues had generally not been considered before and that judgements were based on preconceptions. An element of fun was introduced as the facilitators challenged expectations and cultural norms by male facilitators sporting women’s evening bags or children’s backpacks. In addition to the fun aspect, this exercise confirmed the fact that these crafts people had not been exposed to the range of products available to other more affluent members of Indian society and in order to understand and develop products for these markets they would need to be exposed to such products. This theme is further explored in the exercises described below.

In a second phase of the exercise, the participants were asked by PBK to design and make an oil lamp for one of the facilitators, based on asking questions about what their needs were and what they liked. This exercise confirmed the expectation that an understanding of
target markets was an important area of learning for the crafts people; the difficulty the participants had with finding appropriate questions to gather the information that they needed to inform their designs showed their lack of experience in questioning customers and users. The results of the exercise to design an oil lamp for me were revealing of the crafts people’s perceptions; sketch models of oil lamps were produced which featured motifs of a cross, an Easter egg and a tea cup - all symbols of ‘Britishness’ in their eyes. In hindsight, the choice of product and target user (me) was probably not helpful, and prompted the question from the participants, ‘Why would a ‘Britisher’ want an oil lamp in the first place? He has electricity!’.

This process was then extended by asking the participants to question an existing product using the ‘5Ws and an H’ as a framework, e.g. ‘Who is it for?’, ‘How is it used?’, etc. These then became the basis for the questions asked of a group of students in the next exercise (for details of the workshop timetable, see Appendix 5, A5.2).

- Exposure to other users and environments

The idea of asking customers what they wanted was new to the participants. Discussions with the crafts people revealed that there were crafts people in the group who had been making products for fifteen years and had not once talked to a customer. However, once they had been exposed to a range of different users and their home environments, they were quick to propose new ranges of products to fit these environments.

The idea behind two visits to two different home environments was to expose the crafts people to new potential local markets. Both of the homes visited were owned by Indians from the middle class, both were chosen for their differences from each other and their significant differences from the crafts people’s own homes. Differences included bathing and toilet environments, dining and food preparation practices and the use of gardens and outside spaces as extensions of the home. The participants were invited to observe and ask questions in both environments. These visits were facilitated by a small group of students who spoke Kannada.

This exposure to new environments was followed by an exercise to generate new product ideas for situations and environments they had just experienced. This exercise generated

101 The 5Ws and an H refers to the interrogative prompts, ‘Who?’, ‘What?’, ‘When?’, ‘Where?’, ‘Why?’ and ‘How?’. In this case it prompted the crafts people to ask questions to determine, for example, ‘Who bought it or used it?’ ‘When and how?’, etc.
significant amounts of energy, with crafts people developing small ranges of western style plates and bowls thrown on a potter’s wheel (Figure. 23), as well as flower vases and other domestic utensils which were new to the crafts people. Figure. 22 shows a set of bathroom accessories based on an animal theme. These different products were identified by the participants during the exercise. The freedom to identify areas of interest and develop designs influenced by this was positive in two ways; the freedom of choice injected enthusiasm and the exposure to new environments and practices fuelled the creativity of the crafts people. In some cases, such as the bathroom accessories (Figure. 22), it is not clear whether the crafts people fully understood in detail the user needs and functional specifications of, for example, the soap dish, but as this was an exercise in initial three-dimensional concepts, these issues of detail development could be dealt with later.

Figure. 22 A range of bathroom accessories produced by Mohan Chander following an exposure visit to a middle class Indian home.
Communication of design principles
It was observed in this workshop that the communication of specific design principles was most successfully communicated in discrete exercises. Examples of this were the use of exercises to emphasise user-centred design or the benefits of interviewing potential customers to inform design innovation. Previous experiences of project-based learning in which such principles were addressed as they emerged from the more general training process provided a less focussed training model. It is anticipated that in future training interventions, this focussed approach using exercises to communicate a particular design principle will be followed.

Testing an initial participatory analysis exercise
One of the main reasons for my involvement in this workshop was to test a recently devised participatory analysis exercise to explore how craftsmen could identify gaps in their knowledge and skills. I also wanted to explore how aspects of design training could be
used to fill those gaps. The design of this exercise had been influenced by a training technique exercise describing the design process used by Buckley and Crawley in the ‘Design for Profit’ training programme (Buckley and Crawley, 1994 session 8) and also an activity called the ‘River of Life’ in Chamber’s book, ‘Participatory Workshops’ (Chambers, 2002 p26). I used the concept of a river as a metaphor to represent the design process, from research and ideas generation through manufacturing to marketing and sales. The metaphor of the river was to be used as the core of an analysis exercise to illustrate the life-cycle of product development and to determine where the potential gaps were in the crafts people’s knowledge and skills.

In my experience in India, I came across the river being used a number of times as a metaphor for process, journey and discovery. PBK referred me to one of her favourite novels ‘Siddhartha’ that she said described the importance of the river in Indian life. “…the river is everywhere at the same time, at the source, at the mouth, at the waterfall, at the ferry, at the current, in the ocean and in the mountains, everywhere…” (Hesse, 1998 p88). Professor MK Ranjan of NID uses the metaphor of an ocean voyage in a similar way (Ranjan, 2007).

The purpose of this analysis exercise was to devise targeted training interventions to address gaps in skills or knowledge identified as part of the exercise. It was envisaged that it could be used either in a group context as the basis of discussion and reflection or as a diagnostic tool for individual crafts people to map the methods they use to develop a product.

Following preliminary meetings, it was decided that it would be best for PBK and RS to facilitate the exercise for clarity of communication. Although this had not been the original plan, as I had hoped to be able to facilitate the session myself, in the event this enabled me to concentrate fully on the observation of reactions to the exercise, both by the facilitators and the participants.

The exercise was introduced as the basis of a discussion on product development, visually charting the influences and decisions taken along the route from idea to market. Once the participants had understood the reason for visual mapping using an abstract metaphor, the river metaphor was accepted and embraced. Initially, the participants did not seem to be sure why the facilitator was relating the design process to a drawing of a river. However, as
they listened and understood, the participants then began to add their thoughts to the metaphor, discussing the seasonal flow of rivers paralleled with product sales. The concept of intellectual property rights (IPR) protection was also discussed, prompted by the concept of the removal of water from the river. The answer given by PBK was that, “the river is not frightened that people are taking water because she is strong and she knows that her water will always flow”, illustrating that an innovative craftsman should not be concerned if people copy his products, he should keep on developing new products as a means of maintaining market advantage.

This analogy was then further developed by describing the hydrological (rain water) cycle of sea to clouds and then to rainfall at the head of the river. This was used to illustrate the need for connection with the market, which had been previously identified as the sea, emphasising that this connection and subsequent information will stimulate the flow of ideas to keep the river running.

The result of the exercise was a large scale drawing of a river showing the stages of the product development process (Figure 24); this was developed as a result of a collaborative discussion with the participants. Initially, the facilitators provided the main sources of illustrations, drawing connections and asking questions, but by the end of the session the whole group had bought into the process. Once the various stages had been mapped, they were revisited to discuss in more depth, adding further connections and influences.

As I observed this exercise and later discussed it with PBK, I concluded that it had the foundations of an effective and inclusive means of communicating the product development process as a whole. The information communicated in this exercise provided a start point and context for the subsequent training experience, thus allowing specific training exercises to focus on individual elements, tasks or processes within the context of the product development process. The technique was also used by the facilitators to emphasise other training priorities, such as the importance of drawing and the need for variety in the market place, as well as the concept of user-centred design and how the needs and requirements of the user influenced the design process. The resultant visual metaphor was left on the wall for the duration of the workshop and was often referred to, to illustrate a point or reinforce an issue.
Figure 24 The wall drawing from the initial participatory analysis exercise, January 2004\textsuperscript{102} (Photo JF).

\textsuperscript{102} The original drawing was approximately 4 m long by 1.5 m tall.
4.4.6 Findings

1. The relevance of training
   Although the training environment selected for this workshop bore no relation to the working environments of the participants, the training content was found to be focussed on projects which could have immediate benefit to the crafts people.

2. The recognition of existing skills and knowledge
   The focus of this workshop was on the communication of new design skills and therefore the recognition of existing skills and knowledge was not addressed. It was found, however, that some of the participants possessed existing design skills (EDS) which enabled them to build on the learning from the workshop. Learning from the literature suggests that identifying and providing training for crafts people with these existing skills is more likely to beneficially impact their livelihood (Guimarães, 1995 p290).

3. Knowing the market
   Teaching how to interrogate new markets via interviews and exposure to new customer environments raised the participants’ awareness of different customer groups.

4. Focussed training exercises
   Observation of the training in this workshop showed that specific design principles were most successfully communicated in discrete exercises.

5. Testing a participatory analysis exercise
   The participatory analysis exercise was effective in communicating the product design process with a group of crafts people. This was an initial indication that exercises designed on participatory principles would be helpful in design training for this audience.

6. Communication via drawing
   Individual sketching was valuable for crafts people to explore new ideas. In this workshop, an unexpected discovery of the use of sectional views provided an insight into the role of analytical drawing in new product development. The use of large-scale group drawing in the participatory analysis exercise was also found to
be a helpful communication tool, which facilitated group discussion.

7. **User-centred design**
   User issues could be effectively explored via group work using role-play as a trigger for group discussion.

8. **Three-dimensional design iteration**
   Training exercises that included making and iteration in three dimensions stimulated increased engagement, energy and enthusiasm. It was also found that the use of transformational words encouraged three-dimensional iteration.

9. **Introductory exercises**
   An unexpected finding from this exercise was that the use of existing products made by the crafts people is a helpful focus for teaching about customer feedback as a stimulus for further product development.
4.5 Immersion, development and testing - phase two: South India

Foreword: reflection, preparation and planning

This element of the fieldwork building on the learning and experience gained in Dehradun and Yelahanka, allowed me to work for a protracted period of time with groups of crafts people testing design training strategies and approaches. This iterative process of experience, reflection and testing of ideas was facilitated and underpinned by the use of the CRE process. The learning from this experience was drawn together into a series of principles, and observations with the purpose of informing future design training initiatives.

The two initial field experiments (4.3 and 4.4) provided the opportunity to explore some initial ideas and questions in a supported environment. A number of key findings were identified from the research up to this point. These led to a focus on low-level intervention which minimises disruption, the fostering of indigenous product development skills, the development of products meeting local needs and local markets and a focus on products for everyday use.

Following these two field experiments, it was important to take time to reflect on the experience and decide on the way I would approach the next phase of the research. Originally, I had planned to conduct another short-term field experiment. However, during this period I became aware of a small number of Indian sociologists and anthropologists who had written about working in rural Indian villages. MN Srinivas in ‘The Remembered Village’ (Srinivas, 1976), along with other authors in ‘The Fieldworker and the Field’ (Srinivas et al., 1979), described periods of participant observation in a range of Indian rural villages. Each of these interventions was of twelve months duration. These accounts of village life and of the highs and lows of fieldwork in this context had a strong influence on me to investigate the possibility of applying for a yearlong sabbatical. This possibility became more feasible during a discussion with the director of Srishti at the end of the second field experiment in Yelahanka, when she invited me to bring my family for a year to pursue my research.

I pursued this invitation with Srishti and was asked to work as resident researcher for them. This offer of a paid research position made possible a long-term field study (twelve months) and provided a safe environment with accommodation, schooling and work for the
rest of my family. Srishti invited me to work on the development of the continuing education project and related initiatives, which coincided well with my research aims and allowed me to develop the relationships already established with a group of terracotta crafts people in Narayanpura.

The opportunity to immerse myself in a particular development context provided a number of benefits to the research project. In general, my engagement during this period can be separated into three areas:

1. Providing the opportunity to work alongside a number of established figures in the area of design training for the crafts sector in the Indian context, as a consequence of my duties as a member of the full-time academic staff of the institution.
2. Seeking to understand the nuances of the culture, learning the local language and building relationships, as a white western male living in the South Indian context. This factor, probably more than others, was affected by the presence of my family who accompanied me on the trip, offering challenges and opportunities not open to single researchers.
3. The running of a number of field experiments with a range of crafts groups employing different skills and materials.

**Strategies and approaches for operation**

Cowen and Shenton offer a concise definition of development that has been widely accepted by development theorists “…to ameliorate the disordered effects of progress” (Cowen and Shenton, 1996 p7). Based on the research to date, strategies and approaches were identified that could begin ‘to ameliorate the disordered effects of’ existing approaches to design training interventions. The following list was formulated to help guide future training interventions in the next phase of this study:

- Exploration of training strategies that would produce a sustainable, beneficial effect on the product development skills of a selected group of crafts people, rather than simply raising the awareness of design practice.

- Facilitation of a locally sustainable process to facilitate the adoption of design skills and practice by crafts people, which would recognise the value and importance of existing technical knowledge (ETK) as well as existing design skills (EDS). This process would seek to build on such knowledge and skills as a foundation for
developing the new product development skills of crafts people, without eroding the values which underpin traditional craft production (Poston, 1994 p2 +78).

- Design intervention as the empowerment of crafts people in the process of design in its widest sense, as distinct from concentrating on the production of a range of new products.

- Focussing on products with everyday uses as a means of simplifying the area under consideration.

- Encouraging the development of products to meet local need. This would recognise the place and benefits of products for an export market and, at a later stage, it might be appropriate to develop products for such a market.

- Utilisation of non-didactic, participative training methods, building on existing local knowledge and practice and undertaken in an environment which, wherever appropriate, would match the facilities available to the crafts people in their workplace.

### 4.5.1 Overview

The twelve month immersion in South India began in August 2004. Table. 9 (p275) illustrates the six different training interventions which took place during this period. The first four months were taken up with settling in, establishing relationships with a local group of crafts people, beginning to learn the language and working on a number of small projects run by Srishti.

In January 2005, an asset mapping exercise was initiated as part of the inter-semester student activities at Srishti, which facilitated a significant period of time (fifteen days) to be spent in a small local village, Narayanpura (4.2.3).

Following this experience, a series of structured design training exercises were designed and developed which were supported by a set of cards forming a training framework. Over the next few months, elements of this framework were tested with two different crafts groups in Coondapoor and Hegoru. Both tests informed revisions to the training cards in terms of both content as well as the visual communication language.
Chapter 4: Learning from the Field 4.5.1

As an on-going process over the next six months, the framework was refined and cards were designed, translated into the local language (Kannada), tested, reviewed, modified and re-translated.

### Training interventions during the immersion period: phase two

<table>
<thead>
<tr>
<th>Group</th>
<th>Date</th>
<th>Days</th>
<th>Product</th>
<th>Material</th>
<th>Process</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coondapoor</td>
<td>February 2005</td>
<td>3</td>
<td>Clothing</td>
<td>Cotton Timber</td>
<td>Sewn</td>
<td>Small scale trial some exercises</td>
</tr>
<tr>
<td>Mixed crafts</td>
<td></td>
<td></td>
<td>Cloth Furniture</td>
<td>Cotton</td>
<td>Woven</td>
<td></td>
</tr>
<tr>
<td>Male and female</td>
<td></td>
<td></td>
<td></td>
<td>Timber</td>
<td>Traditional joints</td>
<td></td>
</tr>
<tr>
<td>Hegoru</td>
<td>February 2005</td>
<td>3</td>
<td>Clothing</td>
<td>Cotton</td>
<td>Woven, printed</td>
<td>Small scale trial some exercises</td>
</tr>
<tr>
<td>Cooperative</td>
<td></td>
<td></td>
<td></td>
<td>Kadhi</td>
<td>and sewn</td>
<td></td>
</tr>
<tr>
<td>Narayanpura</td>
<td>March 2005</td>
<td>5</td>
<td>Decorative pots</td>
<td>Terracotta</td>
<td>Thrown and</td>
<td>First main field experiment</td>
</tr>
<tr>
<td>Single village</td>
<td></td>
<td></td>
<td>and religious items</td>
<td></td>
<td>hand worked</td>
<td></td>
</tr>
<tr>
<td>Male and female</td>
<td>[timetable in Appendix 5 A5.3]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinhal</td>
<td>April 2005</td>
<td>4</td>
<td>Rugs (Zamkhana)</td>
<td>Cotton</td>
<td>Woven</td>
<td>Training cards used by an independent facilitator</td>
</tr>
<tr>
<td>All potters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male and female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coondapoor</td>
<td>June 2005</td>
<td>14</td>
<td>Clothing</td>
<td>Cotton Timber</td>
<td>Sewn</td>
<td>Second main field experiment</td>
</tr>
<tr>
<td>Mixed crafts</td>
<td></td>
<td></td>
<td>Cloth Furniture</td>
<td>Cotton</td>
<td>Woven</td>
<td></td>
</tr>
<tr>
<td>Male and female</td>
<td>[timetable in Appendix 5 A 5.4]</td>
<td></td>
<td>Utensils</td>
<td>Coconut</td>
<td>Traditional joints</td>
<td>Carved/worked</td>
</tr>
</tbody>
</table>
| Table 9 Training interventions during the immersion period: phase two. Note: main field experiments shaded in grey

In March 2005, a five day field experiment was instigated in Narayanpura to test the training framework. The workshop timetable can be seen in Appendix 5A5.3. Following this, in April, I was able to observe the further developed training framework being used by a colleague, an experienced design training facilitator, as the basis for a three day workshop for weavers in Kinhal in the north of Karnataka state. The detailed feedback, coupled with my observations of how the framework was used by a third party trainer, again informed the further development of the training materials. The feedback from the facilitator was that the framework provided a helpful structure for design training; the suggested exercises were a good start point to communicate the key training points and the bilingual cards (see 4.2.5 p216) allowed trainers who were not fluent in the local language (as was the case with this trainer) to communicate clearly via a translator and maintain control of the training message.

103 Note: The majority of these crafts people attended the workshop in Yelehanka in January 2004 (4.4) see footnote75 p183
Chapter 4: Learning from the Field 4.5.2

As a result of this, the training materials were further developed and then in June they were tested in a fourteen day workshop with a mixed group of crafts people, at the invitation of an NGO ‘Concern for Working Children’ (CWC\textsuperscript{104}). The design and planning of this workshop was a careful and deliberate development based on the experience gained in the previous experiments and represented the most complete testing of the developed training framework in this study.

The final stage of the fieldwork following the two main field experiments was to reflect on the information gathered and to conduct a series of sessions in Narayanpura village to validate the findings from the two field experiments, as well as to gain some feedback on the latest version of the training framework.

4.5.2 Fieldwork aims

This period of immersion in the field was undertaken to facilitate a deeper understanding of the broad cultural and socio-economic context in which the crafts people work. The length of time in the field provided freedom to observe, reflect, propose and test a range of principles in two main field experiments. The findings from these experiments would inform the proposal of a set of principles on which future design training interventions by others might be based.

Particular attention was given to:

- Refining a methodology of participatory design process analysis based on initial fieldwork, as a means of defining any potential training needs.

- Exploring methods of using the design process as a means of addressing a range of broader problems, outside the scope of new product development.

- Developing appropriate strategies to facilitate the exploration of the needs and requirement of users and their inclusion in design solutions. This user-centred design approach would include basic principles of ergonomics.

\textsuperscript{104} Concern for Working Children is an Indian based NGO. CWC describes itself as working towards total eradication of child labour in all sectors and seeks to empower children so that they can gain control over their lives and be self-reliant. The project targets children forced to work in unorganized and organized hazardous situations due to poverty, children from broken homes, neglected/forgotten children, orphans etc, CWC is working at local, national and international levels through action, policy research, lobbying and advocacy roles. For more information see: \url{www.workinchild.org/} - retrieved 10.4.12
Chapter 4: Learning from the Field 4.5.2

- Developing strategies for the facilitation of design training as means of empowering crafts people to include design activity as a part of their new product development.

4.5.3 Expectations

1. The relevance of training
   It was expected that training would be relevant to abilities, materials, facilities and market potential in order that training principles could be readily applied to the ongoing practice of the crafts people. Wherever possible, the results would accrue immediate benefit to the participants’ businesses.

2. The recognition of existing skills and knowledge
   It was expected that that existing skills and knowledge would be recognised and complemented in the design and implementation of training interventions.

3. Knowing the market
   It was expected that design training would emphasise the importance of researching existing and potential markets, thus helping crafts people to identify new markets for products, with the expectation that a key focus would be products for a local market, which would provide local answers to local need.

4. Developing a training framework
   It was expected that training framework would be designed to relate to the day to day business of the participants drawing on the experience and learning gained in the previous two field experiments and that wherever possible would have readily applicable immediate outcomes which could be of benefit to their businesses. The design of this training strategy would also be informed by the financial realities that govern resources, equipment and access to markets.

5. The use of PDA principles in training
   It was expected that participatory training principles would be used to inform the design of training for crafts groups, because they are an established means of facilitating whole group engagement and minimising the dominance of any individual participants.
6. The use of drawing
   It was expected that drawing in a range of different forms and scales would play a key role in the training process. Experience drawn from the earlier fieldwork had shown drawing to be a flexible communication tool, with the potential to overcome language and other communication difficulties.

7. User-centred design
   It was expected that in order to facilitate the design of products which meet the needs of users, the principles of user-centred design would be emphasised. It was expected that exercises such as product, task and market analysis would be used in the training, as well as role-play and full-scale mock-ups.

8. Three-dimensional design iteration
   It was expected that three-dimensional design iteration would be an important focus of the training strategy using practical exercises to rapidly model and then discuss design ideas, because it mirrors the existing development practices of crafts people.

9. A broader application of design thinking
   It was expected that following learning drawn from the critical review (3.5), the application of design thinking applied in a broader context than new product development would be explored in order to facilitate problem solving activity, as opposed to focussing simply on new product development.

10. Sustainable intervention
    It was expected that principles of sustainable development would guide intervention strategies, with reference to the environment, and the community. Particular focus will be on the sustainability of enterprises, with the aim that a resource of training and knowledge would remain when the intervening parties withdrew. It was expected that the principle of training-trainers would be used to facilitate the autonomous propagation of the training information.
4.5.4. The Indian crafts sector

Evidence of India’s crafts tradition can be identified as early as 2500BC, “India’s traditional knowledge was highly organised and meticulously articulated” (Balaram, 2005 p12). This knowledge was organised into treatises such as the ‘Vaastu Shashtra’ for architecture and the ‘Shilpa Shastra’ for sculpture. These bodies of knowledge form the basis of the traditional ‘Gurukul’ 105 system of training, which is still found in India today. In the more vocational crafts such as pottery, this is echoed in a traditional apprenticeship system (Balaram, 2005 p12). As discussed earlier (3.1.5), these traditional systems of learning have been influenced and often eroded by educational models initially introduced by the British colonial administration According to Balaram; in 2006 there were nearly twenty-three million crafts people in India (Balaram, 2005 p13). The Commissioner for Handicrafts (Indian Government) separates these into ten main groups of many subdivisions. A small section of these crafts producers make items which are highly valued and can command a good price and these crafts people can use production numbers to influence price, producing lower volumes, or even one-off items. Other crafts people are viewed as producing low value products. Potters are generally understood as falling into this bracket; often their products have a short, utilitarian and/or ritual life cycle and are sometimes destroyed after use, or as part of a celebration. With the advent of plastic products, this traditional role of serving the community in producing such items has changed; potters still make items for religious festivals and for short-term use but have had to diversify into other market sectors.

For the majority of this immersive study I worked with a group of terracotta crafts people in Narayanpura. Although they produced different items, they could all be described as low value products, both in terms of price and customer perception. The volume of output varied, with some producing high volumes for hand production in the order of 1,000 to 2,000 pieces per batch. Others only made small numbers of pieces, but in either case, there was no sense of trading on the numbers made, such as limited runs or one-off products. If an item was only made in small numbers, then the reason would be that the crafts person might not be sure how many would sell and therefore he would only make a small number to test the market. In this sense, using a western manufacturing terminology, these crafts people were engaged in the batch production of items for everyday use.

105 Gurukul means ‘family of the guru’. This term reflects the close nature in which this traditional form of training takes place, often with pupils living with their guru or teacher.
Chapter 4: Learning from the Field 4.5.4

- **Caste**

The Indian crafts sector is generally understood to occupy the lower income end of society. This economic position is defined in part by the caste system. Of the four main ‘Varnas’ or castes (Brahmin, Kshatriya, Vaishya and Sudra), crafts people generally occupy the fourth ‘Sudra’ caste (Mehrotra, 2007 p2). There are a number of sub-castes or ‘Jati’ within this wider grouping, but it is not relevant to this study, apart from the need to recognise that as a sub-caste, Khumars (the Hindi word for a potter) are classified by the Indian government as one of the ‘other backward castes’\(^\text{106}\). In recognition of their poor financial position, the government has instituted various means of financial assistance including subsidies, provisions of basic foods such as flour and rice, as well as preferred access to enterprise initiatives such as trade fairs.

### 4.5.5 The participant groups

Two groups of crafts people were selected for the two main field experiments. The first group was a sub-group of potters from Narayanpura and the second group was made up of crafts people from a mix of skills and crafts, whose common connection was their connection to the charity CWC.

- **Group one - Narayanpura village**

Narayanpura village is approximately 20 km north of Bangalore, in between the main roads from Yelahanka to Devanahalle and Dodballapur. In order to provide a wider geographical context for the village, the following annotated map is included (World Mapping Project, 2004) (Figure 25 and Figure 26) also shows the village on a satellite image\(^\text{107}\). As can be seen, the village consists of between twenty to twenty-five dwellings, some of which have outbuildings and other structures such as kilns and animal shelters. It is interesting to note that during the fieldwork period it was not possible to find Narayanpura village marked on any map.\(^\text{108}\)

\(^\text{106}\) The ‘other backward castes’ are defined by the Indian government in the following document [http://www.delhigovt.nic.in/dept/district/anx24.pdf](http://www.delhigovt.nic.in/dept/district/anx24.pdf), which outlines the selection criteria and the assistance offered. retrieved 12.3.11

\(^\text{107}\) Image from Google Earth [http://earth.google.com](http://earth.google.com). This image is taken from reference 13°09’42.89” N 77°36’03.91”E at 35000m height. © 2007 Europa Technologies Image. -retrieved 10.1.07

\(^\text{108}\) This search was conducted by colleagues at Srishti in the public record offices involving searches for old maps as well as current government data. However, with the advent of public access programmes to access satellite imagery, it is now possible to view a detailed satellite image of the village.
Figure 25 A map of the Bangalore area showing the location of Narayanpura Village.

Figure 26 A satellite image of Narayanpura village showing the location of RK’s house and workshop.
The crafts people in the village comprised of men and women of all ages and abilities, working part-time and full-time. There were thirty-seven potters in the village, of whom fifteen to twenty were established or expert crafts people. In terms of production skills, they generally fell into two main categories, throwers and hand-workers. The handwork is generally done by the women and the young men who are not yet fully trained and the throwing is generally done by the mature men. In addition to this, some crafts people engaged in moulded clay products. These were generally low value items that are sun-dried and often disposable, such as money boxes. The throwing of smaller items (small lamps, etc.) can be learned and undertaken by boys of as young as ten, but to learn how to throw the larger items, a boy has to wait until he is more mature (sixteen or older). Although this progression is intrinsically linked to the idea of reaching maturity, the limitations are generally related to the practical limits of size and strength, because this type of potter’s wheel is large and heavy and requires spinning by hand to obtain the necessary speed and duration to turn a pot.

A focus group
As I began to engage with the crafts people in Narayanpura, I became aware that for practical reasons in order to make observation, recording and analysis feasible and to make the building of relationships possible, I needed to find some means of selecting a smaller group of a manageable size with whom to conduct a series of training interventions. As a result of the second field experiment in Yelahanka (4.4), I had already worked with a sub-group of the crafts people in Narayanpura which was centred on one craftsman, RK and included his family and friends (Table. 10 p283). The group fulfilled this practical need in the most natural way. Although others may have applied a more theoretical method of selecting the group, as Chakravarti states, the selection of a location and focus group for a field study cannot always be supported by a fully rational explanation (Chakravarti, 1979 p42). The chosen group needed to express diversity of skill, gender and age if possible, which this group did, and in reality if strict adherence to these requirements had created a group of strangers, this would have thrown up other problems.

The following section explores the sub-group in more detail. This group did change to a certain degree with the various workshops and other sessions held in the village, but the group described below was the core. The primary element that defines this sub-group of approximately twelve crafts people is relationship. The de facto leader of the group and most experienced craftsman was RK. It was his relationships that primarily defined the
group and, to a certain extent, interactions with others outside the village. As explained above, I was introduced to RK in January 2004 by PBK during the second field experiment (4.4). RK is an accomplished potter who, over a period of twenty years, had moved from making traditional larger utilitarian vessels (water pots and flower pots) to a large range of smaller, more decorative items and others of a religious nature. The other members of the group are split into two other production groups (Table 10 below).

RK moved to the village in 1986, following his marriage to RH. The move to his wife’s home village, contrary to tradition, was stimulated by the potential of increased commercial opportunities afforded by the proximity of Bangalore in comparison with his home village. Over the next fifteen years, he took various opportunities for training and established himself as a respected craftsman/entrepreneur in the village. His entrepreneurial characteristics were displayed in his experimentation and development of alternatives to the traditional products generally made in the village.

As an outsider, it took me some time to determine RK’s role and status in the village. In the wider village, he held an elevated status, partly because he regularly entertained visitors from outside the village and sometimes even, as in my case, from abroad. As a Kumbhara (the Kannada word for a potter), judging from his possessions and accommodation, he appeared to be less well off than some of the Goudas (farmers) in the village.

<table>
<thead>
<tr>
<th>Production groups in Narayanpura</th>
<th>Craftsman</th>
<th>Other workers</th>
<th>Products</th>
<th>Other products</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group 1</strong></td>
<td>1.RK Craftsman trainer</td>
<td>Wife Son 1 Son 2 Apprentice</td>
<td>A wide range of small scale decorative items (product range 200+ items)</td>
<td>Seasonal orders (uses other crafts people to fulfil large seasonal orders)</td>
</tr>
<tr>
<td><strong>Group 2</strong></td>
<td>2.CS Craftsman</td>
<td>Wife R Apprentice (occasionally mother)</td>
<td>Flower pots, high grade for retail as well as nurseries</td>
<td>Smaller scale decorative items as well as seasonal orders</td>
</tr>
<tr>
<td><strong>Group 3</strong></td>
<td>3. RP Craftsman</td>
<td>Wife Sister Father</td>
<td>Flower pots</td>
<td>Seasonal diversification into smaller products (deepa, etc.)</td>
</tr>
</tbody>
</table>

*Table. 10 Production groups in Narayanpura*
CS was RK’s neighbour and close friend (Group 2, Table. 10). He primarily made flowerpots for commercial nurseries as well as retail. He owned a kiln with a capacity of 2,000 pots, which was situated next to his house. His pots were generally considered to be of a high quality and commanded a better price than other crafts people in the village, who made lower value, biscuit-fired pots, which were used for growing plants and were discarded once the plant was sold. He had already been diversifying in a small way into other more decorative items over the past couple of years, but in the latter part of the immersion period, following the training workshop held in the village in March 2005 (Table:9), he increased this activity and was experimenting with a range of large, mainly thrown and decorated forms. R, who is CS brother-in-law, also worked in the same workshop.

RP, who is RK’s brother-in-law, generally worked alone with the help of his wife and occasionally his sister (Group 3, Table. 10). His primary product, as described above, was disposable growing pots for nurseries. The workshop he used, which had a kiln of a 1,500 pot capacity, actually belonged to his father who didn’t tend to work very much anymore. M, his younger brother who was involved in the workshop in January 2004 (Table. 8), was also a potter but had moved to the city to find other work.

RK ran the largest of the three workshops (Group 1, Table. 10) involving his wife and sons (one still at school who helped when he was at home) and an apprentice, H K, his nephew. Because the majority of RK’s products were small (approximately 100 mm x 100 mm), he had a small kiln with a capacity of 100 pieces. When he required kiln capacity for larger items, he waited for a larger firing to be done by his neighbours and requested space in their kiln. When CH was asked why, as a recognised crafts person, he didn’t make smaller, higher value items like RK, he replied, “Not everyone can make this type of product”, thus showing a clear understanding of the issues of supply and demand in this sector.

Others from the village were added to this group from time to time. In March, two of the younger crafts people (V K and G) attended the workshop. This may have been for a number of reasons, but it is likely that the prime reason, apart from finance, was because the training workshop was being held for the first time in the village. The timetable for the first main field experiment in Narayanpura can be seen in Appendix 5 A5.3.
Group two - Namma Bhoomi, Coondapoor

CWC is based in Coondapoor, coastal northwest Karnataka. The map in Figure. 27 provides a geographic context for the location of this fieldwork (World Mapping Project, 2004).

Figure. 27 A map of the Coondapoor area showing the location of Namma Bhoomi village.

Criteria for selection

Following a short preparatory visit in February 2005, the invitation was pursued and the opportunity accepted as being appropriate as the location for the second main experiment for a number of reasons:

1. The crafts people would all speak Kannada.
2. The group of crafts people would be diverse and thus would provide an opportunity of testing the training principles on a mixed group of crafts people, which would
also offer the opportunity for encouraging collaborative work between a range of skills (a practice that was already being explored by CWC).

3. The opportunity fitted my needs, budget and timescales.

The site of the workshop was the village, Namma Bhoomi (meaning 'My Village' in Kannada), built by CWC as a training and residential centre for their children and young adults near Coondapoor.

The training venue

The venue for the workshop was a purpose-built training centre on the village campus. The workshops for the various participants were part of the village and were primarily vocational training venues.

The majority of the crafts people invited by CWC lived on site and the others, although off-site, were affiliated to CWC, lived in the surrounding area and had previously been resident in Namma Bhoomi.

The participants

After initial discussions in February 2005, regarding the scope and nature of the training that could be offered and the type of crafts people that would benefit from such training, free rein was given to CWC to invite the crafts people they felt would benefit. The resultant cohort was as follows (Table. 11).

<table>
<thead>
<tr>
<th>Participants who took part in the workshop in Namma Bhoomi</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
</tr>
<tr>
<td>Craftsperson A</td>
</tr>
<tr>
<td>Craftsperson L</td>
</tr>
<tr>
<td>Craftsperson B</td>
</tr>
<tr>
<td>Craftsperson D</td>
</tr>
<tr>
<td>Craftsperson G</td>
</tr>
<tr>
<td>Craftsperson N</td>
</tr>
<tr>
<td>Craftsperson M</td>
</tr>
<tr>
<td>Craftsperson J P</td>
</tr>
<tr>
<td>Craftsperson Ng</td>
</tr>
<tr>
<td>Craftsperson MJ</td>
</tr>
<tr>
<td>Craftsperson U</td>
</tr>
</tbody>
</table>

Table. 11 Participants who took part in the workshop in Namma Bhoomi
Chapter 4: Learning from the Field 4.5.5

As can be seen from the above table (11), four of the eleven participants were trainers. In my experience, this is not unusual in such situations and can often result in a higher level of engagement from all participants. It also challenges the workshop facilitator to make sure that the level of the training and communication is appropriate. Details of the workshop timetable for the second main field experiment in Coondapoor can be seen in Appendix 5 A5.4.

### 4.5.6 Learning from fieldwork interventions

This final phase of field experimentation will be reported thematically rather than chronologically. The reason for this is that in one sense, the twelve month period served as one large field experiment and in another sense, the period was made up of a series of experiments that built one upon the other (see Table. 9).

This section will report on the specific learning drawn from the fieldwork interventions. The development of the training framework will be discussed with specific reference to its effectiveness and reception by the trainee population.

The majority of the design training principles, which formed the foundation and content of the design training used in the field, were drawn from my experience as a design educator.

The following basic principles in my experience form the cyclical process of design practice:

- Basing ideas generation on a researched area of need established by interaction with potential customers and users.
- Generating a range of ideas, which are then used as a pool to select from, using criteria, generated from the research into the market and the users. Developing selected concepts informed by further research, modelling, detail design prototyping and testing.

These principles lie at the heart of the design training interventions undertaken during this fieldwork. As Balaram stated, the training principles of design education are sound, but what needs to be carefully planned and negotiated is the “approach” to the trainees, the “communication” of these principles and the “relevance” to the specific context (Balaram, 1998 p131). Poston reinforced this point, discussing western-based training approaches that
serve to reinforce western values and erode the values and practices of more indigenous training methods (Poston, 1994 p21).

- **The relevance of training and its environment**

Findings from the literature review, and in particular from Poston (1991 p155), suggested that training should take place with the materials and tools and in the environment which the crafts people commonly used. As discussed, in the previous two field experiments, I was able to observe and analyse how these training interventions related to the findings from the critical review. In the early phase of the immersion period, this observation was continued by taking the opportunity to co-facilitate two training workshops for crafts groups organised by external agencies.

In the first of these workshops (Hegoru, see Table. 9), the training took place in the workplace, and one of my immediate observations was that because of this, a large volume of work was possible in a short time period. The training model employed was to use design students as mentors in a number of work cells within a cooperative which manufactured clothing. The cells involved were dyeing, weaving and printing as well as a separate introductory session on garment design.

In the second workshop (Kinhal, see Table. 9), the crafts people were gathered in the local temple meeting hall for the majority of the training content, although towards the end of the training some time was allocated for prototype generation.

Following this experience of observing training in different environments with different equipment available, and building on experience gained from the study to date, I decided that for the majority of training scenarios it was less disruptive to house the training in the environment in which the crafts people normally worked, using the materials and the equipment which were readily available.

In addition to this, in the second field experiment in Yelahanka (4.4), it was observed that for certain activities such as market and product research, it was beneficial to arrange facilities such as libraries and the internet and to arrange trips to shops, markets, and other people’s homes, enabling the crafts people to understand possible new markets and product
ideas. As a result of this, the opportunity to access such facilities was built into the next two field trials.

Placing the training in the crafts villages (Narayanpura and Namma Bhoomi), ensured that the equipment and materials were available and relevant to the everyday practice of the participants, as well as removing the expense and time taken if the participants had been required to travel to the training venue. It also enabled the training to take a more central place in the village life, with others not involved in the training often looking on and sometimes offering comments and humorous observations. This served to raise the status of the trainees, especially because the trainer was a foreigner. Steps were taken to minimise the disruption of training to the participants and the workshop sessions were limited to a half day. Even though they were being paid to attend the workshop, it allowed the crafts people to continue with their normal work and did not interfere as much in the meeting of deadlines for orders. In a more full-time course, this work would generally have had to take place in the early morning and evenings.

Developing a training framework

Over the course of the fieldwork, it became clear through reflecting the learning and experience drawn from each of the training workshops (CRE) that the training process would be helped by devising support materials. During the first four months of living in Yelahanka, relationships were developed with the chosen crafts group in Narayanpura. The culmination of this period was the asset mapping exercise in Narayanpura village (4.2.3). During a period of reflection following this exercise, two main questions were considered:

- ‘What are the benefits of increased design capability for crafts people?’
- ‘What role does design thinking play in this context?’

The purpose of these questions was to analyse the progress of the research and to explore changes in thinking and approach up to that point of immersion, development and testing.

The result of this questioning and reflection led to the analysis of a number of issues relating to communication with the trainee group. This was approached under a series of headings:
Chapter 4: Learning from the Field 4.5.6

- The problem
- Users
- The market
- Solutions

Each of these headings required unpacking in a logical way; as I began to outline the training elements which would need to be communicated under each heading it was evident that they were part of the wider design development process and should be discussed and placed in this context. The participatory analysis exercise (the river), previously tested in the second field experiment (4.4.2.), was selected as the ideal vehicle to introduce this idea of product development and so a basic training framework was constructed in which a series of design exercises would be highlighted and introduced by the stages described in the river exercise.

The headings described above were explored using small rectangles of paper, each containing a key training issue, starting with the introduction of the subject such as, ‘Users’ or, ‘Ideas’, thus creating a mind-map of possible training areas and content. As this visual brainstorming exercise progressed, I concluded that each area of focus required a series of training steps as outlined on the pieces of paper. The concept of designing a set of cards that would communicate these training steps was a logical progression of the way the ideas were being explored.

Following this process, I read an article in the local press (The Times of India)\(^\text{109}\) which reported on a card game that had been developed by the International Labour Organisation (ILO) in India to raise awareness about AIDS. This confirmed to me that a card based training framework was considered to be an appropriate means of communicating development issues in the Indian context by an established development organization. The idea of cards being used to prompt the training process also has similarities with the IDEO method cards developed by the design consultancy of the same name\(^\text{110}\). This provided further insight into the use of cards for communicating and guiding a design process.

\(^{109}\) For the full article see: http://www.timesofindia.indiatimes.com/articleshow/1003043.cms - 41k - retrieved 11.4.07

\(^{110}\) IDEO method cards were developed as a design research tool by the IDEO consultancy. For more details see http://www.ideo.com/methodcards/methoddeck/methodcardshtml.htm - retrieved 11.4.07
Training cards
The identified areas were developed into a set of training cards split into seven sub-sets. These were:

1. What is Design?
2. The Design Process (facilitated by the participatory analysis exercise)
3. Problem Analysis
4. Users
5. Ideas
6. Making
7. Research

The card-based training framework was then developed during the initial field experiments in Coondapoor and Hegoru and later in the field experiments (Table. 8). This process of development was aided by using the CRE process see Figure. 28. Prototype cards were produced for each field experiment to support the training which had been designed to respond to the identified needs of the crafts group. As the training took place the cards were annotated to note any changes which would improve the facilitation of the next workshop, afterwards I reflected on the training process and modified the strategies and the support materials accordingly. As the training framework was developed, the cards themselves became a vehicle to aid in the facilitation of the training at various levels. Sets of cards were linked together with binder rings, allowing individual cards to be removed from the set if required. This idea of sub-sets of cards focused on a theme facilitated the design of workshop programmes with sessions designed to highlight a specific theme. In addition to facilitating a more responsive framework of training, the cards could be used in different sequences for specific purposes, or as a stand-alone exercise. The way the cards were illustrated and designed was explored, a range of sizes and shapes were tested and developed for ease of use as well as functionality. Individual cards were designed to be simple, with the minimum of text and explanatory illustrations.

The last set of cards produced to facilitate the training in Kinhal and Coondapoor included the addition of two sets of prompt cards; one for iterative design exercises, e.g. Taller, Fatter, Add, Subtract, Cut, Merge (as described in 4.4.3) and the other to facilitate problem analysis exercises; Who?, What?, When?, Where?, Why?, How? and How much? A series of ice-breaker cards were also added, including stories collected from local facilitators. More practical exercises were added to the ideas section, providing a range that could be
selected for different training groups. Another feature added was a loop-back card added to each sub-set, which reinforced the cyclical nature of the design process, as described in the participatory analysis exercise (4.4.5). Copies of the final set of training cards can be seen in Appendix 6.

**The design process**

As explained earlier, the participatory analysis exercise (Figure.24) described in 4.4.2 was used as a key aspect of the card system as a means of communicating the design process. A sub-set of cards was created to facilitate this exercise in the same way that it was used in the second field experiment, to form the context for further training and as a point of reference to locate each new piece of learning into the product development process. The large-scale drawing created during the exercise provided a continuous reminder of the process of design. The cyclical nature of the river metaphor (the hydrological cycle) also allowed the idea of feedback loops to be introduced as part of the process, checking the brief with the research and the initial prototypes with the brief, etc. In addition, a personal river exercise was introduced as an ice-breaker, which was taken from a book on participatory workshops by Robert Chambers (Chambers, 2002a p26). This exercise was one of the inspirations for the exercise that had developed, but also served as a good ice-breaker, allowing participants to tell their stories as well as introducing the river metaphor at the start of the workshop.

**Bilingual training materials**

One key aspect of this card-based training framework was its role as an aid to minimize the effects of the language barrier. It was clear from previous experience (4.2.5) that in order to communicate effectively via an interpreter, a script was necessary to keep them ‘on message’. The way in which this was done in this training framework was to keep the information on the cards simple, i.e. one concept per card. Each of the cards was then translated into the local language, Kannada. The cards were produced with Kannada on one side and the corresponding English translation on the other. These bilingual cards could then be used either way round, as a prompt either to the trainer or to the interpreter. Because the images in many cases were almost self-explanatory without the text, I, as the facilitator could learn the words from the relevant training cards and use the local language side of the cards as a guide to small group interaction, thus limiting the need for constant translation and allowing for crafts people within the group to co-facilitate the exercises. Even when local workshop facilitators used the cards, the translated sides of the cards were
helpful in providing specific technical terms, especially with those facilitators who were not confident in the local language (see Appendix 6 for examples of the training cards).

**Testing the cards**

The card-based training framework was developed over a series of iterations and tested in various forums:

- With peers
- With expert training facilitators
- With crafts people
- With crafts people who were trainers
- Supplemented by peer feedback from local colleagues

The full training framework was tested twice, once in Narayanpura (March 2005) and then in Coondapoor (June 2005) see Table 8. Both of these tests provided feedback that was assimilated into additions and changes to the cards. Some cards were added to facilitate the training of specific crafts groups, such as weavers, and others were designed to be more general. The workshop timetables for both of these main field experiments can be seen in Appendix 5 A5.3 and A5.4.

In addition, it was arranged for two local training facilitators to use the cards as the basis for workshops they were running. The facilitators were PBK and Swathi Unakar (SU), a colleague of PBK at Srishti, and the co-author with PBK of a training manual (Unakar and Kasturi, 2003). One of these facilitators (SU) approached me to ask to use the cards as the basis for a workshop (Kinhal) and the other agreed to use the cards to facilitate a day session as part of the training workshop I had arranged in Narayanpura (March 2005).

When the training framework had been further developed, these two training facilitators were interviewed to ascertain their opinion of the developed cards. One facilitator likened them to a Swiss army knife, “all the tools you need are to hand and you can pick the one you want to use” (P B Kasturi, personal communication 25th June 2005). This attribute of structured flexibility was found to be particularly effective by both facilitators as they were using the cards. The other commented that she found the bilingual nature of the cards made the exercises easier to follow, as she was not confident to facilitate a workshop in Kannada. She also liked the addition of a number of specific exercises aimed at weavers,
which facilitated experimentation with pattern and colour. (S Unakar, personal communication 20th June 2005).

At the end of the immersion period (August 2005), RK, the senior craftsman in Narayanpura village, was asked to evaluate the cards. His reaction was that they would be “full useful” (sic) and then, as if to back this up, he asked for a set of cards for every crafts person in the focus group we had been working with. When this was regretfully declined due to cost and time, he committed to funding the copying himself because he felt they would be so useful to the individual crafts people.

- Cycles of Reflective Experimentation
The cycle of reflective experimentation (CRE) as described in Chapter 2 was used as a means of developing the training framework described above. The annotated diagram of the cyclic model in Figure 28 illustrates this process and describes how the training framework and required support materials were developed in an iterative process of testing and modification in response to the learning from each training workshop. Table 9 describes the situations in which the support materials were tested. Each of the four cycles in the diagram show how learning from one field experiment was reflected upon and informed the design of refined training materials for the next.

The preparation element in the first cycle was based on the learning and experience drawn from existing design training in development contexts (3.4.4, 4.3.5 and 4.4.5). As a participant observer of these training workshops I was able experience the way other trainers communicated key principles, how the trainees responded to this and how it changed the products they produced. I was then able reflect this experience and test it against the theories that had been identified earlier in the research (3.1.18, 3.2.7 and 3.3.4) this learning then informed the preparation for the next experimentation cycle, developing prototype cards as training support materials.

The support materials were developed over subsequent cycles reflecting on my increasing understanding of the training needs and the particular challenges of providing effective and sustainable training for crafts people in this situation. As described earlier the training support materials were developed via CRE into a set of cards which was, organized into sub-sets based on categories of training, which had been identified through earlier field experiments as being helpful to the crafts people. For example the collecting of items as
Chapter 4: Learning from the Field 4.5.6

Prompts for the development of a colour palette for rug weaving was developed into training cards as a result of experimentation during training workshops in Coondapur and Kinhal (See Table 9 and further descriptions p303). The design of the training cards provided structure and the organization to the training, providing support materials for a targeted training element, as well as allowing for flexibility in the training strategies used in response to expressed training needs. The support materials were then further developed by producing bilingual training cards which helped to guide interpretation of the training message as well as other unexpected benefits for local facilitation and peer learning (4.2.5 and 4.5.6).
Autonomous propagation

If it is important to facilitate sustainable training interventions, then it must follow that the content and methods of delivery of such training is designed in such a way that sustainable propagation of the training content is not only possible but also probable. This idea was

Figure 28 Cycle of reflective experimentation: developing training support materials
emphasised by Poston in his work in Manie (Poston, 1994 p xii) and has been borne out during my experiences during this research project. Therefore, during this fieldwork experience, steps were taken to design training strategies that empowered the trainees with practical skills they could use and pass on; in other words, ‘training-trainers’. Theoretical content was limited to discussions and explanations of concepts via mind maps, and this was then augmented with short practical exercises that reinforced the particular points being made. As described above, the simple bilingual cards were designed so that the primary content of the workshop could be left with the participants and used on an on-going basis. As mentioned earlier, towards the end of the intervention period, the cards were also given to an existing trainer in the village (Narayanpura), RK. Although I was not able to observe him using the cards, his reaction to them throughout their development was positive and the fact that he invested his own money in producing copies of the cards for the other members of the focus group was testament to the fact that he valued their content as an on-going training resource.

- **Discovering existing technical knowledge**
  During the asset mapping exercise in January 2005, I decided to explore and record aspects of the existing technical knowledge of the crafts group. The firing process was chosen as a focus for this exploration. A group of local design students working with me on the project were set the task of finding out how pots were fired. Experienced crafts people were approached and asked to explain. As a context for the exercise, it was carefully explained to the crafts people that any information gathered would only be used in the context of the college (Srishti) and discussed in this research and would not be made public. Over the period of two or three days, the students and the crafts people became increasingly frustrated. No matter what questions the students asked they couldn’t get the crafts people to move beyond the type of response, “We just do it like that”, “Why?”, “Because we always have done”. It seemed impossible to get a clear explanation of why and how certain practices took place.
In an attempt to move the process on, having been an observer until this point, I chose to intervene and suggested, based on experience gained in previous field experiments and on examples from development theory (Chambers, 1997 p150), that instead of just talking about it, maybe it would help to draw the problem. We created a series of large-scale sectional views of a kiln and used them as the focus for a discussion (Figure 29). We then pointed to each part and asked about what happens in a specific place, how this is made and why, e.g. “Where is the optimum temperature?”; “Where are the cold spots?”; “What do you do about them?”. Immediately, the discussions transformed into a lively exchange, with crafts people competing to show their knowledge and students asking helpfully naïve questions which opened up new areas of knowledge.

The result of the process was not only a productive knowledge-gathering exercise, but also the generation of a set of detailed illustrations which described the firing process. This process of group exploration of ETK via graphical means was unexpectedly effective as a method for exploring ETK. It was also a process with which the crafts people were able to easily engage. They expressed surprise about some of the information which had been identified and the connections between pieces of information drawn out by the process, saying, “We didn’t realise we knew that.” They were also very impressed with the

Figure 29 A sectional drawing of the kiln in Narayanpura (Photo JF)\textsuperscript{111}

\textsuperscript{111} This image was produced as a training tool for the crafts people by Sidarth, a year four student at Srishti based on the sketch produced in the village as part of the ETK exploration.
Chapter 4: Learning from the Field 4.5.6

illustrations produced as a result of the exercise and added, “We need these diagrams to train our children”. The resultant images from these exercises were then developed with the help of the crafts people as teaching aids for apprentice crafts people.

This use of collaborative drawing enabled the participants to communicate their ETK as a group, stimulating the exchange and discussion of information, which had previously been held in a number of different crafts people’s heads. The particular benefit of the resulting illustrations was the fact that they made explicit areas of knowledge that it had previously only been possible to orally describe. In this way, they not only complemented and reinforced the oral communication of such knowledge but also provided a visual repository of such information, which in turn prompted further discussion amongst crafts people as well as aiding the training of new crafts people.

Graphic exploration of ETK played to my strengths as a designer and minimised the limitations of a lack of shared language. It also enabled peer discussions, which brought to light new knowledge as a result of comparing ETK from different crafts people. This approach of large-scale drawing has been a theme throughout the research project and also figures in the training literature of participatory development. Guijt et al suggest a number of different uses for large-scale drawing and model making to illustrate and explain information about a given situation, ranging from the crops growing in a given area to the rainfall over a year (Guijt et al., 1995 p234).

The process followed in the exploration of ETK is a good example of the use of CRE see diagrams and discussion in 2.5.2 and 4.2.3.

- **Existing design skills (EDS)**

It was highlighted in the critical review and previous field experiment in Yelahanka (4.4.5) that the identification of people with existing design skills was important as a foundation for sustainable design training interventions.

During this immersion period it became clear that, within the crafts groups I worked with, a small number of innovative individuals stood out. These people engaged with training in a more active manner and often demonstrated the new ideas they had been working on when I visited the village. In the broader sense, the design interventions seemed to bring out innovative behaviour in many of the crafts people. Some clearly engaged with ideas for
new product development, working through different iterations and testing them in a small scale on their market stalls. Other crafts people concentrated on innovation related to production: one in particular reduced the different processes required to make a plant pot down from four to two. Working with such innovative individuals and encouraging such behaviour as it is displayed during training will support the building of a culture of design and innovation within a crafts community.

- **Practical prompts**
  Another group of facilitation techniques for training were a series of prompts for discussion and further exercises. One area was for the crafts people to bring in their own products (4.4.5), and the other was to collect things, a learning approach that evolved from the training experience.

**Examples of crafts people’s own work**
In the critical review phase, Kieran Crawley was interviewed about a design-training project he had been involved with in Kenya in 1994 (3.3.3-5). Crafts people were asked to bring in examples of their work and the purpose of the exercise in this case was both to ascertain the type and quality of the products that the crafts people could produce and to facilitate peer-level sharing of ideas and skills (Buckley and Crawley, 1994) (K Crawley, personal communication 11th September 2001).

This exercise was used in a similar way by Lalit Das in a workshop in Ranchi as a means of assessing the type of training that would be appropriate for each of the participants (L K Das, personal communication 25th March 2002).

Over the course of the fieldwork, this type of exercise was used with a number of different aims. In the second field experiment in Yelahanka (4.4), the activity was used as the basis for communicating the importance of customer feedback. The idea was also extended so that the products developed were then used as the core of further activities.

**Collecting things**
On a number of occasions, an exercise was used in workshops where the participants were asked to go and collect a range of objects that appealed to them. On one occasion (in Coondapoor), this prompted a morning’s beach combing and another resulted in a range of items brought from home and found in the street.
In each of the cases, the search was initiated by a discussion on the colour and texture of items to hand being a good source of inspiration for new designs. In Kinhal, the participants, a group of dhurri and zamkana (mats) weavers, were asked to collect items according to a given theme. Four different groups were asked to use the words 'Monsoon’, 'Diwali’, 'Autumn’ and 'Summer’ as themes to guide their collection (Figure 30 below). The resultant collections were then used as inspiration for new colour combinations in their weaving. Following the use of this exercise in the first workshop in Kinhal training support materials were developed which supported its use in Coondapoor (4.5.6). This is another example of how such materials were developed by applying using CRE.

**Figure. 30** Participants in the Kinhal workshop\textsuperscript{112} exploring colour palettes influenced by items collected inspired by the theme ‘monsoon’ (Photo JF).

- **The use of PDA principles in training**

  **Participatory decision making**

  A key strategy employed in the facilitation of training interventions was the use of participatory techniques to enable the whole training group to understand and be involved in design decisions. A good example of these techniques was when they were used to facilitate the selection of proposed prototypes for further development.

\textsuperscript{112} The Kinhal workshop took place in April 2005 see Table. 9 page 275
Chapter 4: Learning from the Field 4.5.6

The image (Figure. 31) shows a group-generated matrix evaluation of the factors that inform the decision as to which of the proposed prototypes should be selected for further development. The criteria along the left-hand axis were arrived at by discussion with the trainee group and focus on the practicality of making a new product. The final selected criteria were:

- How much will it cost to make?
- How much will it sell for?
- How many will sell?
- Will it be easy to transport?
- Do you like it?

The final criteria ‘Do you like it?’ was added as an opinion-based element which seemed to help the less experienced participants engage with the process, and to initiate further discussion about why a particular product was ‘liked’.

In order to enable everyone to have a voice in the decision making, a matrix analysis technique was designed, taking elements of participatory matrix analysis (Guijt et al., 1995 p86) and techniques used by Pugh (1991 p7). Each participant was given twenty beans and asked to use them to vote for the products they thought would do well against the agreed criteria. This voting strategy has limitations, as some of the less confident or experienced participants might wait until a more experienced person had voted so they could follow suit, thus reinforcing existing hierarchies. However, when this was used in Narayanpura, the most senior crafts people waited until last to vote, encouraging the other participants to vote first.
Although there is a great deal of practical instruction on how to run such participatory exercises published in manuals such as Chambers (2002a) and Guijt et al (1995), in practice it is a difficult and complex task to enable every participant to have an opportunity to contribute to the process. The challenge for the facilitator is to avoid guiding the process to achieve the end point they perceive would be best for the participants. Although this exercise was designed to give every participant an equal voice in the discussion, the key point of this exercise was less about the reality of how free people are to express their opinion and more about communicating the criteria which need to be considered and the complexity of the resultant decision.

**Fun and games**

Another element introduced into the training experience, as a result of learning from participatory approaches, was the use of exercises which incorporated play, or fun. The introduction of such elements in a training process is widely accepted as a means of bringing variety and regaining attention and interest. Chambers goes as far as saying that “The development vocabulary can no longer do without the word ‘fun’, a sense of creative energy a spirit of play” (Chambers, 1997 p207).

Games are well established in PDA, as communication and training tools (Chambers, 1983 p204). In his recent book on participatory workshops, Chambers devotes whole sections to
fun games and energisers, thus emphasising the importance of including such techniques in any training intervention (Chambers, 2002a p33). This theme is also emphasised in ‘A Trainers Guide to Participatory Learning and Action’ (Guijt et al., 1995 p131).

These techniques are used as a way of communicating training principles and involving participants in decision making in a way which is less formal and provides a more ‘level’ scenario of engagement. It puts experts, outsiders and local people in the same situation, slightly removed from the realities and hierarchies of life but learning about real scenarios and making decisions about situations which resemble everyday reality (Barker, 1979 p40).

In the context of the field experiments during the immersion period, such elements were used as icebreakers and energisers to punctuate the training and to create a more informal atmosphere.

An example of one of these exercises was a design game used at the start of the workshop in Coondapoor. This game was a fun competitive exercise, which set the participants the task of designing a hat for themselves. When they had completed the hat, they were asked to model them to the rest of the group on an impromptu catwalk and the rest of the group selected which was the best hat. This exercise served to break the ice as well as to provide an illustration of the design process, which facilitated discussions about ‘What is design’ and ‘How to design’. Other exercises, such as participatory decision-making described earlier and the mandala exercise described later in the section, followed the format of a group game to facilitate interaction and contributions.

These elements also served to level the training relationship, as a development of the participatory voting and feedback exercises. The reaction to these elements during feedback was very positive. As one participant commented during an evaluation interview towards the end of the field experiment in Coondapoor, “I found the games/activities were really helpful if there was a subject that was less interesting to me” (Appendix 7).

In a more general sense, fun was part of the relationship building process. During festival times, I would play cricket with the young men in the village and my wife and children would also take part in the festivities.
Drawing and mapping were identified as a powerful means of communicating with and involving the group in the exploration of problems and issues. The participatory analysis exercise, discussed earlier in the chapter (4.4.5), is a good example of large scale corporate drawing and mapping to explore a complex concept, using a range of graphic means to illustrate and communicate the key issues.

Mind maps proved to be an unexpectedly effective means of communicating and exploring complex concepts with a group, even when the discussion was mediated via a translator. More often than not, once the area of exploration was explained, it was the participants, drawing on their experience, who contributed the key points of the map. This again served as a means of encouraging the participants in their existing knowledge and facilitated a discussion that drew connections between the various pieces of information that made up the whole and were easier to see in a graphical format. As mind maps use a minimum number of words, they are easy and quick to translate, thus maintaining the interest and focus of the exercise.

The figure below (Figure. 32 ) shows a mind map created during the Coondapoor workshop, which illustrates the elements which need to be taken into account when deciding how much to charge for a particular product. To start the exercise, the central ‘bubble’ was drawn and labelled and the participant group was then asked for suggestions on what elements need to be taken into account. In this particular example, once the second bubble ‘cost of time’ had been added, the suggestions were all made by the participants. This exercise demonstrates the way in which mind mapping can be used as a flexible facilitative training tool, which encourages group participation and peer learning and allows the facilitator and interpreter to take a step back from centre stage, allowing shared learning to take place.
Stories and metaphors

The use of stories and metaphors as communication strategies also provided elements of familiarity, which were easy to engage with. Throughout my career as a design educator, I have used anecdotes and stories to illustrate and explain teaching points and so in this context I looked for local stories to illustrate the training message, such as quality or the need for constant improvement. As I engaged with local trainers, I collected a number of stories, anecdotes and metaphors. They borrowed from local traditions and narrative forms and reinforced training points that could then be built on and returned to during the training process. I used them in many teaching and training scenarios to facilitate the communication of training principles.

The collection focussed on two main areas:

- Locally understandable metaphors
- Local stories

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113 The Coondapoor workshop took place in June 2005. See Table. 9 page 275.
Chapter 4: Learning from the Field 4.5.6

**Metaphors**

The use of metaphors to communicate training points or facilitate training serves a number of purposes. One of the most useful is that it limits the need for explanation. In addition to this, the use of such metaphors seems to facilitate participants to engage and contribute their ideas and perspectives more readily. Examples of these metaphors are the river, used as a visual and conceptual metaphor for the product development process (see 4.4.5.), and the mandala.

The mandala is an established circular form of map or drawing that is used in a number of faith systems to guide a specific process. Kolb refers to the history of the mandala as a symbol of “integrated knowing” and he used it as one of the core principles to illustrate his theories of experiential learning (Kolb, 1984 p229). In Kannada the word ‘mandala’ is understood to mean ‘map’ or ‘plan’. To illustrate this, both of the images below would be referred to as mandalas (Figures. 33 below and 34 overleaf).

![Figure. 33 a mandala plaque produced by crafts people in Kinhal (Photo JF).](image-url)
Figure 34 A rangoli mandala pattern produced by Radhamma in Narayanpura on the occasion of the crafts mela at the end of the asset mapping exercise January 2005 (Photo JF).

Figure 35 A group in the Coondapoor workshop engage in a problem exploration exercise facilitated by a ‘mandala’, June 2005 (Photo JF).
In the training workshops, this metaphor was used as the basis of an exercise for a guided ideas generation session, focussed on a specific product or issue. The image above (Figure. 35) shows a discussion being facilitated by a mandala technique, designed to help the participants to explore a problem. In this case it was, ‘How can ‘L’ set up a tailoring shop?.’ Each of the quadrants was designated with a particular point of view: positive, negative, creative and factual. A series of interrogative prompts were then used to facilitate a discussion about the product or issue in the centre (‘Who?’, ‘Why?’, ‘What?’, ‘Where?’, ‘When?’, ‘How?’ and ‘How much?’). Training materials to support the use of these metaphors were developed and tested applying CRE (4.5.6) initially they were used in the first main field experiment in Narayanpura they were then refined following reflection on this experience and used again in the second main field experiment in Coondapoor (see Table. 9).

**Local stories**

Stories were often used to introduce the theme of a workshop and to emphasise training principles. In many cultural contexts, stories are an important, non-threatening educational medium. The inclusion of narrative elements into the training process was found to be a helpful means of communicating complex scenarios and stimulating discussion, especially if these stories were drawn from locally recognised images and created to reflect the local realities. A recent DIFID funded project supports this position, reporting on the beneficial use of stories to support development initiatives amongst agricultural workers in Middle Eastern countries (Manning-Thomas, 2008 p1). An example of the stories used is the Tiger Story\(^\text{114}\), used with permission from local crafts trainer, PBK.

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\(^{114}\) **The Tiger Story**: Three men were shown into a room with two doors. They were told that behind one door was wealth beyond their wildest dreams - gold, silver, gems, etc. Behind the other was a hungry man-eating tiger. They had to choose and open a door.

The first man refused to choose and left.

The second man - a good strategic planner - hauled out his computer, analysed probability data, did some risk analyses, plotted data, produced charts, created scenarios and after much deliberation, opened one of the doors. He was eaten by a low probability man-eating tiger.

The third man - and of course the third man is always the winner – spent his time learning to tame tigers.

The story is not new, but it does apply to this workshop.

The tiger represents our problems in our work, whatever we may do – fears that we have to conquer, issues that must be tackled and knots that we have to untangle. If we do some of these, we feel successful and are able to enjoy the fruits of our labour. But, as we can see in the story, a lot of time is spent (like the second man) in planning and creating statistics that should give us some answers and justify our actions. And, like in the story, they seldom do.
In addition to these formally written stories, throughout the training process as a facilitator, I used stories and anecdotes as a means of communicating and emphasising important points. It is often most effective if stories are woven around live scenarios given by the participants, in relation to either current situations or challenges, plans or aspirations. These scenarios can effectively be gathered by collecting individual life stories in the form of ‘personal rivers’ as used by Chambers (Chambers, 2002a p26), and by discussing hopes and dreams.

- **Techniques to research the market**
  A range of techniques were demonstrated as ways of getting ideas and analysing the market.

  **Transect walks**
  Transect walks are an established means of gathering information in development practice (Guijt et al., 1995 p239). This technique was used as a means of gaining information from markets and other retail outlets.

  In the field experiment in Coondapoor, a brief list of prompts and questions was prepared and translated in order to assist trainees in making the most of a visit to a local market. Questions such as “*How have sellers made their displays more attractive?*” enabled trainees to form their own judgements about selling their products. They were also asked to look for new product ideas, e.g. if something is traditionally made in one material, can it also be made from an alternative material or even a combination of materials? Later in the workshop, this visit to the market was reviewed and the feedback session was conducted via a mind map.

  When we arrived at the market, contrary to local advice there was little evidence of locally made craft products and it was therefore difficult for the crafts people to find stimuli for new product ideas. However, I purposely left the participants to their own devices on market day and the amount of information they gathered was both more than expected and of good use to their enterprises.

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Learning to tame the tiger takes time, and the trouble is that learning is an internal process and mostly not visible, and time is something that most of us do not have.

In our work, we live in turbulent times, and often have to keep running to stay in the same spot.
So… learn to tame the tiger…

Learn to live, survive and embrace perpetual and continuous change.
Some of these are listed below.

- Old designs don’t sell – unless they are re-packaged and then only for a short time.
- The use of attractive packaging to convince the customer to buy products.
- The importance of talking to customers and explaining the usefulness of a product.
- Trends move quickly and it is important to be aware of them and to respond.
- We shouldn’t make what we want, but what the customer wants.
- The importance of good presentation and display of products on sale.

**Print and internet searches**

The trainees were encouraged to explore a range of sources of information and visits to libraries were arranged during both of the field experiments in Narayanpura and Coondapoor, in order to study books and magazines for new ideas. Access to libraries is not widespread in India, especially for crafts people, although links with institutions and NGOs can offer access to reference material.

In addition to this, the participants were introduced to the internet as a research tool. In the Narayanpura workshop, four of the participants were able to write in English and had some computer skills and these people were then used as extra facilitators for the sessions. Because of the expansion of internet access, especially in and around Bangalore, it is becoming increasingly possible for people like crafts people to access the internet for research and marketing. This has resulted in a number of crafts-based NGOs setting up web-based direct sales operations. One of the main drawbacks to this medium of research is that, in my experience, the majority of websites whose contents might be useful for crafts people are produced in English.

Although access to useful material is a significant concern, during the two workshops where internet-based research was trialled, there were some positive examples. In particular, in the first field experiment in Narayanpura, a number of interesting product ideas were identified. The search in this case was narrowed to oil lamps, because the earlier sessions of the workshop had identified a new range of lamp products for Diwali (the Hindu festival of lights) as a potential market focus. The standard products made for this festival are small, simple throwaway ‘deepa’ (votive oil lamps). The lamps produced by potters in the wider marketplace for this festival are generally all the same design with
small elements of decoration and are primarily sold on price. As a means of potentially diversifying this market, the research conducted was focussed on ancient forms of oil lamps. Greek, Roman, Egyptian and Judean oil lamps were found\textsuperscript{115}, which in principle were very similar to the existing deepa.

The simplicity of these lamps, some of them from the Iron Age, was in many cases very similar to the deepa made by this group of crafts people throughout the year, but especially at Diwali. This simplicity of form and production was particularly interesting to the crafts people, because although they made many different lamps, by far the largest volume of sales were from the simplest lamp used as a short-term throwaway item. Therefore, any improvement in design, which differentiated the lamps in the market and could still be produced rapidly, should improve sales. A number of the design ideas taken from the web research project were either developed or planned to be developed. The image in Figure 36 shows a range of products developed from the ideas resulting from this research, which were influenced by Roman designs.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure36}
\caption{Prototypes of new lamps influenced by ancient lamps identified by internet research (Photo JF).}
\end{figure}

\textsuperscript{115} Some of the most interesting groups of ideas identified in the research were those inspired by web sites on ancient oil lamps, e.g. www.ancientlamps.com - www.bible-history.com/ancient_oil_lamps/index.html - retrieved 10.4.07
The broader application of design thinking

The application of design thinking in areas that are traditionally not seen as being within the normal remit of design approaches has been reinforced a number of times in my research as a key area of benefit and one that would merit further exploration. Corlett argues that designers have a critical set of skills, which are of decisive importance to a nation's development. “By part of their training and something of a natural inclination, designers are able to perceive and act upon potential problems and opportunities” (p10). She notes that these skills point to another important reason to introduce design education in developing countries,

There are skills that designers possess in analysis and synthesis, which could be used for other purposes than the creation of objects. This 'discovery' appears to be encouraging designers to view their skills in a much more general context than has hitherto been offered. Surely, this is the central key to understanding why design education is vitally important in development situations. Design is not something solely concerned with product and providing employment, it is something much more broad and conceptual than that (Corlett, 1997 p10).

The idea that the techniques used in design thinking and problem analysis have the potential for much broader application than simply product development has been tested on a number of occasions during this research project. Problem solving and visualisation techniques have been shown to be of relevance and benefit in a broad range of areas, from training in agricultural planning to organisational analysis and change in small cooperatives. This promotion of practical, or life-skills, such as ‘thinking skills’ and ‘problem solving skills’, is also emphasised by an article on vocational education by UNESCO (2005 p5). The use of large scale maps and drawings has also been used in participatory approaches as visual means of analysis (Guijt et al., 1995 p139). From an Indian perspective, Balaram also emphasises the positive impact of the application of design thinking and problem solving techniques in a broader context and often by untrained designers (Balaram, 1998 p93).

During one of the small scale field experiments in Hegoru (north west Karnataka), I was asked to facilitate a small group discussion with the elected directors of the women’s cooperative, who were hosting the workshop.

The aim of the discussion was to help the women to explore the challenges and problems within the organisation as they saw them. The way that the cooperative had developed had given rise to a number of communication challenges. As a women’s cooperative, there
were ten elected directors who were charged with running the business. However, because of a lack of key management skills within the team of directors, the male chair and instigator of the cooperative brought in two key male appointments as managers to run the manufacturing and dyeing operations. This arrangement brought with it problems of communication and management authority. This dislocation was not articulated or discussed before my session with the directors, but as I began to facilitate the discussion via mind maps and other drawing tools, the problems and gaps became apparent. When they were out in the open, they then became much easier to discuss and address. The elected directors’ roles within the organisation were raised and discussed and eventually the relevant points mapped out were used as the basis of a discussion with the overall management of the business. The results of this process were new roles and responsibilities for the elected directors. The facilitation of this process, via large scale mapping and drawing techniques, was an excellent example of the use of design-based approaches applied to a non-design problem, which helped to open up and clarify some complex and difficult situations.

Another example was the use of mind maps to train farmers. During the second main field experiment in Coondapoor, one of the participants was an agricultural trainer. When mind maps were being discussed, he became very excited at their potential as a visual training medium and reminder for local farmers in the annual cycle of jobs that need to be done. He expressed frustration with the farmers’ current practice of working through tasks one by one rather than having an idea of the bigger picture and how each of the tasks fitted and affected each other. Mind mapping for him represented a significant shift in being able to illustrate and explain to the farmers the wider context of a year, or a season. He could now map where each task fitted, where multi-tasking was necessary and how certain decisions (e.g. how much to charge for a given crop) needed to be taken in the light of the bigger picture, all of which were much easier to see in a graphical form.

It was expected, based on findings drawn from the critical review, that design thinking would be applicable in a broader field than just new product development. As a result of interventions initiated during this fieldwork, it was observed that design thinking communicated via graphical methods was an effective means of facilitating groups of people to externalise, analyse and solve their own problems.
4.5.7 Evaluation and feedback

As part of the final field experiment, a series of evaluation exercises were conducted by an external party to find out how the workshop was received and understood. The evaluation took the form of daily mood meters, an evaluation wheel and a series of informal interviews with a representative sample of the participants, conducted by a third party towards the end of the workshop. The analysis from these exercises was fed into the findings of the study and a detailed description of these exercises can be found in Appendix 7.
4.5.8 Findings

1. The relevance of training

In each of the periods of fieldwork, it was found that basing the training in the work environment of the crafts groups proved less disruptive to normal production activities than basing the training outside the production environment and also enabled the use of familiar materials and equipment. This was suggested as being of potential benefit in the literature (Bonsiepe, 1976 p18, ICSID, 1979 p3, and Poston, 1994 p22) but during the early fieldwork was not found to be usual practice by local trainers (4.3 and 4.4). It was also found that focussing on areas of identified need ensured that training was relevant and of immediate benefit. Holding the training in their home context helped to raise the profile of the trainees and increased the significance of the training for them. This was suggested in interviews with practitioners (3.3.5) and then explored and refined in the fieldwork (see sections 4.3.6, 4.4.6 and 4.5.7).

2. The recognition of existing skills and knowledge

Interviews with existing practitioners (3.3.3 and 3.3.5) suggested that it would be helpful to identify existing skills and knowledge of the crafts groups as a foundation for design training initiatives. This was then tested in each of the periods of fieldwork. It was found that the identification of people who were entrepreneurial and had existing design abilities enabled the trainer to use them as role models, focussing training exercises around their knowledge and experience. When exploring existing knowledge it was found that collaborative drawing exercises were a good means of exploring such knowledge and communicating with crafts people, particularly when the discussion had to be translated (3.5, 4.3.6, 4.4.6 and 4.5.7). In addition to this, two specific areas were identified where existing skills and knowledge were apparent.

   a. Graphical exploration of ETK

      The use of collaborative drawing exercises enabled the participants to communicate ETK. Graphical exploration methods facilitated technical knowledge to be externalised about a particular process (firing in pit kilns) which these participants said they had previously not understood.

   b. Existing Design Skills (EDS)

      The identification and encouragement of crafts people with these existing skills built a culture of innovation and design.
3. Knowing the market

Interviews with Ballyn, Crawley, Harris and Donaldson suggested that knowledge of the markets where their products could be sold was important to crafts producers. This was tested in fieldwork in Yelahanka and South India (4.3.6, 4.3.6 and 4.5.7) and it was found that the careful facilitation of primary and secondary learning from the potential markets enabled crafts people to identify information, which was used in the design of new products. In Narayanpura the crafts people began to report back to me and other facilitators about new product ideas they had identified at craft fairs from competitors, as well as from sessions of internet-based research at the local college.

4. Developing a training framework

a. Using my teaching experience

During the fieldwork, especially in Dehradun and South India (4.3.6 and 4.5.7), I found it helpful to use my knowledge of design teaching when devising exercises for training interventions. This enabled me to be more comfortable and to utilise my experience, thus allowing me to concentrate on areas of the training that were new to me. I decided to follow this approach after experiencing the use of a similar approach by Indian training facilitators. My prior knowledge and experience of design teaching enabled me to be freer and open to experiment with different modes of training. This experience also enabled me to identify, by observation and experience, those training approaches which were helpful to bring from my experience and those which would be more helpful if they followed local traditional training practices.

b. Introductory exercises

In Dehradun and Yelahanka (4.3.6 and 4.4.6) in keeping with well-established training principles, I found that introductory exercises helped participants to settle into the training environment, allowing them to use familiar skills and materials and giving them the opportunity to display their existing skills. This strategy was again used in the training in South India (4.5.7) where it was also found that such exercises provided an unobtrusive informal base line for analysis of participants’ skills, which then informed the design of training interventions.
Chapter 4: Learning from the Field 4.5.8

c. Support materials

It was found in the fieldwork in South India (4.2.7 and 4.5.7) that the use of support materials (cards) was effective in training crafts groups and provided a flexible but structured framework for training. Bilingual materials provided an effective support to the translation and interpretation process.

5. The use of PDA principles in training

Findings from the development literature indicated that the use of PDA in training would be helpful (Chambers, 1983 p146, Chambers, 1997 p15, Chambers 1999 p1). This was explored in the field experiments, especially in South India (4.2.7 and 4.5.7) and it was found that training exercises based on PDA enabled whole group engagement, with each participant contributing their knowledge and skills to the training process. It also provided a more participatory model for product development. As discussed later in the chapter 5.3.3, participatory approaches to development were very important in my preparation for fieldwork. I selected those aspects of PDA which helped me to design training exercises that facilitated group involvement in discussions, exploring a subject and in decision making.

Specific techniques were used for different purposes.

a) Participatory decision making: techniques such as bean voting and large scale graphical analysis were found to be helpful in facilitating whole group discussion and peer learning about a specific scenario, such as the selection of which from a range of concepts to develop for production.

b) Fun and Games: Icebreakers and games were used to inject an element of fun into the training process, which was found to be helpful in adding variety to the training process and maintaining energy levels. Such techniques can also be used as means of communicating specific training points or helping the group to gel. Since I as a facilitator took part in these activities, this also demonstrated a more democratic and participatory training process as opposed to the formal didactic training which the crafts people had previously been used to.
c) *Stories:* Locally understood stories were used as a means of illustrating and explaining key elements of the training message. These were found to be useful to make the training relevant to the local cultural context. They also served to stimulate discussions about the application of the training to local crafts practice.

d) *Metaphors:* Ideas such as the ‘river’ and the ‘mandala’ were also found to be useful as a means of communicating training points and concentrating the group’s attention in order to facilitate a more focussed discussion, enabling a guided analysis of a given problem or scenario.

6. **The use of drawing**

In each of the periods of field work (4.3.6 and 4.4.6), a range of graphical techniques were tested as a means of communicating training points, overcoming language barriers and helping participants to add their knowledge to the training experience. This strategy was adopted because it is a natural way to communicate as a designer, but it is also reinforced as good practice in the development literature. In the fieldwork in South India (4.5.7), mind maps were found to be especially effective in the facilitation of group discussions on specific training points.

7. **User-centred design**

Placing the user at the centre of the design process reinforced by exercises such as product, task and market analysis, enabled the crafts person to draw on their ETK and build a database of information that influenced the design of new products. This was found as a result of experiments in communicating the importance of user centred design during the fieldwork in Dehradun, Yelahanka and South India (4.3.6, 4.4.6 and 4.5.7).

8. **Three-dimensional design iteration**

During the fieldwork in Dehradun (4.3.6), it was found that when working with crafts people whose outputs were three-dimensional, exercises that used three-dimensional design iteration improved participant engagement. Participants were more confident to experiment than they had been in a purely drawing-based exercise and the use of transformational words encouraged increased experimentation. This approach was
developed and refined in subsequent fieldwork in Yelahanka and South India (4.4.6 and 4.5.7).

9. A broader application of design thinking
During the fieldwork in South India (4.5.7) it was found that graphical methods were effective in helping groups to use design thinking to identify, explore and solve problems. These methods were used with farmers to explore the more effective use of their time in the yearly cycle and also to help a group of women understand the management of their cooperative and how they could best contribute to its development.

10. Sustainable intervention
The training materials that were developed (a set of illustrative and explanatory cards) helped to make the training intervention more sustainable by supporting the autonomous propagation of the training information by local trainers (training-trainers). The crafts group in Narayanpura adopted these cards at the end of the immersion period as a means of continued development of their skills in new product development.
Chapter 5 Findings Conclusions and Recommendations

Chapter 5 Findings, conclusions and recommendations

5.1 Introduction

This chapter states the findings drawn from the research, draws conclusions and sets out the contribution to knowledge embodied in the thesis. A key part of this contribution is the proposal of a set of principles for use in future interventions by design practitioners working with crafts people in development contexts. Some of these confirm and build on existing practices in the field of development that are identified and discussed in the study. Although the ideas and approaches from which these principles were derived are not new in development practice, they are proposed as new principles for design training for craft enterprises in a development context, as the result of experience gained by testing theory in the field. The chapter concludes with recommendations for further research, focussing in particular on the testing of the proposed training strategy through an impact analysis over an extended period of time.

The findings are drawn from each section of the research project. They are summarised and their conclusions discussed in this chapter. As a support to the thesis, the origins and genesis of each finding are set out in a findings grid in Appendix 9. This grid illustrates how the findings were identified as the project progressed and how they were drawn from both the literature and the work of existing practitioners and then tested in the field.

This study began with an exploration of how design can be of benefit in developing countries. As has been discussed in the critical review, the published literature, even in this general area, is limited; many of the texts only discuss design and developing countries in generic ways. As the study progressed it became increasingly clear that in order to work with a group of crafts people to find sustainable development solutions, it is essential that ways are found to understand in some detail the context in which product development takes place. It is also most important to begin to build relationships with the local people in order for resultant proposals to be recognised and owned by the local group and therefore be more likely to be sustainable.

116 Each finding in this chapter is referenced to the findings sections it originates from. The findings grid in Appendix 9 describes in tabular format where each expectation, finding and conclusion in the study originate and how they relate to each other. The columns in the grid are labelled with the expectations and findings sections of the study and the rows are labelled with numbered headings which describe the findings themes. By cross-referencing these rows and columns the information which leads to each finding can be traced.
Chapter 5 Findings Conclusions and Recommendations 5.2

5.2 Key findings from design training interventions

This thesis argues that the use of participatory techniques to communicate and collaboratively explore the application of design to crafts practice can benefit craft-making communities in development contexts in a number of specific ways. The key claim here is that participatory approaches facilitate forms of understanding to emerge that have not so far been identified in design and development literature. In other words, there is a direct relation between participatory approaches to design training and the benefit to craft-making communities in a development context. Integral to this claim is my use of a cyclical research process (CRE), drawing on immersive reflective experimentation and the application of some of the principles of grounded theory.

The findings from the fieldwork (4.5.8) show the importance of training that is relevant to crafts peoples’ understanding; that it responds to local markets and recognises and builds on existing skills and knowledge.

It was also found that the manner in which fieldwork was approached and the strategies used for engaging with crafts people and their environment was just as important as the content of any training workshop. Key principles drawn from learning in the field are outlined in section 5.4.4.

5.2.1 Returning to the research question

The research question, ‘In what ways can indigenous product development skills be fostered in order to enable artisans to define needs and develop new products for everyday use?’ has been addressed in this study in the following ways:

- A design training framework has been developed and tested that is relevant to the identified needs and also flexible to meet the changing needs of the crafts people. This includes taking into account the more practical elements of existing equipment and materials readily available to craftspeople. Making training relevant to both the needs and available resources of the craftspeople means that it has a greater potential benefit to the day to day practices of the crafts people.

- Focused training exercises as part of this framework, which respond to the existing product ranges of the crafts trainees, are therefore of immediate benefit.
to the crafts people. Examples of these benefits are: extending product ranges; making products more responsive to local markets; improving the function of products and addressing manufacturing issues.

- In order to help to build a culture of innovation and design within crafts groups, I identified crafts people who already had skills in design, innovation, and entrepreneurship. Working with these craftspeople meant that I was able to reinforce their good practice and work alongside them, supporting them to be a role model for other crafts people. Identifying and supporting such people is fundamental in the task of embedding design and innovation within the culture of the crafts groups.

- Alongside the design training framework I produced a range of bilingual training support materials. These materials, in the form of two sided training cards collated into themed sets, serve a number of purposes: They facilitate more efficient communication during training, including addressing challenges with translation; they guide and support the training process; following training workshops they can then be used as an ongoing support for new product development by crafts people.

- Utilising a participatory approach to training in the form of principles, exercises and strategies helps to identify locally defined needs. This approach also encourages ownership and engagement with the training process as well as facilitating peer learning and knowledge transfer.

- As a result of this study, learning about the role of design in development contexts via immersion and a reflective experimental approach, a series of principles for engagement with crafts people were developed. These provide an invaluable contribution to other design practitioners working in similar situations, offering them a robust foundation for planning and a guide to working flexibly and responsively towards more sustainable livelihoods in the crafts sector.
5.3 Conclusions

The main purpose of this study was to explore an appropriate role for design training in development contexts. The main conclusion is that design training has a significant role to play in the development of crafts livelihoods in development contexts in South India, by introducing modes of operation in new product development to encourage greater sustainability but also that great care needs to be taken about how design training interventions are undertaken.

Designers are trained to identify and analyse a need or a problem and to propose solutions. However, in my experience designers often do not take into account the wider implications of their actions on the people involved or the sustainability of the proposed solution. In the conclusions to this study, I would like to emphasise that when designers intervene in any development context which is outside their normal social and geographic contexts, it is important for them to understand that context as fully as possible, in particular issues relating to economic viability, social effects and sustainability, before proposing solutions or prescribing ‘help’ to a local population.

As I began to engage as a western designer in such contexts, it became very clear that development interventions are complex undertakings that require rigorous long-term engagement involving sustainable practical interventions, based on sound theoretical principles. Aldous Huxley reflects this complexity, and also reflects good development practice, in limiting any changes to small and sustainable steps “...doing good on any but the tiniest scale requires more intelligence than most people possess” (Huxley, 1939 p123). This is echoed by Rahnema (1997 p397) who suggests that great care and considerable time is needed in any development situation. Design does potentially have a very beneficial role to play, but only within strict boundaries and in partnership with local agencies and groups so that any intervention has been identified as being needed, and that the outcomes are viable and sustainable given the local conditions, people and resources.

5.3.1 General applicability

The design training materials that resulted from the immersion period were developed in response to the learning drawn from interaction with specific groups of crafts people in Karnataka, South India. My understanding of the wider context in which these crafts groups operated, the markets for their products, the materials they worked with, as well as the more general understanding of the realities of life and work, was only possible because of this extended period of immersion.
Chapter 5 Findings Conclusions and Recommendations 5.3.1

Because this project was grounded in one region with a small range of crafts people, this raised the question of how generally applicable the work was to other crafts groups in other countries and/or concerned with making different products.

The key principles of engagement (5.4.4), based on development theory and confirmed during the field experiments, are a valid starting point for the planning of design training interventions for crafts enterprises in development contexts. The findings from the design training interventions relate to the specific context in which this research was based and although some of the specific findings may not be relevant to other contexts, the headings provide a useful checklist of issues to consider when engaging with crafts groups in development contexts. The training materials and strategies developed with the crafts people in Narayanpura were tested with five different crafts groups in South India and they were well received by both facilitators and trainees. For use in another context with other crafts people it would be necessary to consider modification based on an understanding of the new context and crafts people.

Design is no panacea for problems in a development context; an intervention must be designed for an express situation and purpose by people who have taken time to understand its complexity, but perhaps more importantly, if the intervening parties are to be successful trainers and catalysts for change, they must be as willing to change themselves as they are to effect change.

5.3.2 Sustainability

One of the key aspects of any development intervention is that at some point, the intervening parties have to withdraw, but the question ‘How much of what was built will last?’ is very difficult to answer and strikes at the heart of all development work. I have neither been able to return to the crafts group in Narayanpura village since I left in 2005, nor been able to obtain evidence to confirm how much of the training materials and strategies are still used as part of everyday practice. This is partly due to the fact that after I had left India, Srishti’s continuing education focus moved on to other crafts development projects, which in itself underlines the need for and the challenge of a long term commitment to people and place to ensure sustainable development.
Chapter 5 Findings Conclusions and Recommendations 5.3.2

There are, however, principles identified in this study that will contribute towards more sustainable interventions. These are drawn from development theory and tested in the field experiments:

- Building relationships
- Basing interventions on identified local needs
- Making training relevant to existing practice
- Training people to train others
- Leaving behind material to support on-going new product development activity

With the crafts people in Narayanpura, time was spent understanding the context in which they lived and worked, attending festivals and generally finding reasons to spend time in the village observing and understanding. I would not claim to have become close friends with the people there, but by investing time and effort, learning about them, assisting in small ways and helping to organise and support events in the village, I demonstrated a long-term interest in their lives and work.

Time was taken to understand the existing design skills and technical knowledge in the crafts group. This information was used to inform the content of the training interventions and as a foundation on which to build design training materials, which can be used to support on-going product development practice. In this project, because the original meeting with some of the key members of this crafts group had been at a previous design training workshop where I had been a trainer and because time had been spent understanding the local context, in particular observing and discussing new product development practices, it was a natural next step to respond to their suggestions and propose design training. The difference in this project was that the training was based in the work situation, focussing on their existing products, using their everyday materials and building on already identified practices in product development. The training was therefore more likely to be understood as being relevant to their on-going product development practices and to be adopted by the crafts people.

Training-trainers is a key principle of sustainable development that has been discussed at length in this thesis. The training strategies supported by the bilingual training cards provided a framework that fostered on-going informal training. I was not able to establish to what extent this approach fosters on-going informal training within crafts groups generally, but in this case, a craftsman was identified (RK) who had already begun to train others before my arrival, and actively adopted and invested in the translated training cards.
which reinforced the training that had already taken place and suggested avenues for further development. It is therefore likely that informal on-going training has continued in Narayanpura, informed in some way by the training cards developed during the immersion period in collaboration with this craftsperson.

Although the focus of this study has largely been on the commercial sustainability of the enterprises involved it is important not to view this in too narrow a way. As discussed earlier (3.2.2 and 4.2.3), commercial sustainability is intrinsically linked to environmental and socio-cultural sustainability. Taking the Bruntland definition as the accepted principle of sustainable development (WCED, 1987 p1), actions relating to the use of materials or resources or actions of a community which compromise the ability of future generations to meet their own needs are unsustainable. For example, if a craftsperson continues to use materials in a way which exhausts local resources, his or her business will be affected by the increased costs required in transporting materials from further afield and could therefore be less sustainable. Likewise, if one crafts person in a village community is supported over and above other crafts persons or groups then the balance of the community is likely to be disturbed. Such an intervention might not be appropriate or sustainable, in the same way that supporting one enterprise in a village would limit competition and entrepreneurial activity and so might also be unsustainable in the long term.

5.3.3 The practical implications of a participatory approach

The adopted approach was participatory and provided a guide to behaviour and attitudes when preparing for and engaging with crafts people. Although this is accepted good practice in development projects, it is not generally established in design practice, and there are practical implications of following such approaches. It is one thing to understand in theory the benefits of applying the participatory strategies of ‘failing forwards’ or ‘do it yourself’, but quite another thing to apply them in practice. Both of these strategies rely on a level of humility and a sense of humour. I learned the reality of these strategies by adopting the theories and then learning from experience what worked and what did not. The process described in chapter two as ‘reflective experimentation’ (CRE) was a deliberate choice to keep experimenting and ‘failing forwards’ to refine a training strategy.

I learned through experience that this self-reflective approach is most effective if you allow it to influence every area of your life. The strongest lessons I learned about myself, my attitudes and prejudices was when something went wrong, or when faced with a difficult
choice in a new situation. As an outsider, I had to learn how to synthesise the theoretical knowledge from development theory with my day-to-day experiences. I found that keeping a journal in which I explored and reflected on these dilemmas, coupled with discussing them with local collaborators with experience in development, helped me to process my feelings and reactions and come to a place where I was able to make decisions about how and when to intervene. This was often a compromise position, based on balancing the theory with my experience and what I learned by observing and talking to others in the context.

It was therefore imperative that alongside the theoretical understanding, an holistic participatory approach was prioritised as a vehicle for the facilitation of design training interventions. It was also important to understand at a personal level that making the choice to become involved in such development activity required both intellectual and emotional intelligence.

5.4 Contribution to Knowledge

This study makes an original contribution to knowledge in the following areas:

5.4.1 The critical review

In a field with comparatively little prior doctoral research activity, this study provides an extensive and critically discussed literature review in the areas of design and design training and their intersections with development studies, education, anthropology, ethnography, politics and economics.

The critical review also includes interviews with a number of acknowledged and established practitioners in the field of design training in the context of design and development. This addresses an important gap in the literature because much of the practical knowledge in this subject area takes place outside the academic sphere and is therefore not often reported in journals or other publications. One of these interviews with Gui Bonsiepe was particularly important, as he is arguably the most influential living academic and practitioner in the field (Er and Langrish 1992 p3, Madge 1993 p154 and Papanek 1986 p 45). This interview was published in an article in the international journal ‘Design Issues’ (Fathers 2003) which in itself was important because although Bonsiepe’s work is acknowledged by people who know the subject, he remains relatively unknown outside South America (Er and Langrish 1992 p4 and Madge 1993 p155).
The findings of this review provided a theoretical foundation on which to build the fieldwork element of this project, informing the strategies for engaging with craftspeople as well as the content and structure of the training workshops. As discussed earlier, although there has been a consistent interest in the role of design in development since the end of the Second World War, there has been no structured investigation into the appropriate role of design training in a development context. The review enabled me to collect and analyse research and practice relating to design and also to benefit from the experience of practitioners whose work had not otherwise been recorded in relation to design training. In addition to this, my review of development theory and in particular participatory development approaches enabled me to understand an area of extensive knowledge about sustainable development interventions and apply this to design training. It is surprising that the review showed that although design has been used as a development tool since 1945, the connections between the fields have received minimal published attention.

The review therefore provides a critical analysis of theory and practice in both design and development and demonstrates its application to a practical exploration of the role of design training in a development context.

5.4.2 Field work
The fieldwork undertaken in this research is wide ranging and critically reported. It represents a level of discussion, insight and findings which has no precedent in the study of design training in the geographical region or within the crafts sector as a whole. The initial period of field research generated a detailed analysis of design training practices and provided the basis for the development and testing of design training strategies.

The immersive approach taken in this field work provides a model for field research in design, which draws on development theory and practice and facilitates a more detailed understanding of the context in which design training would take place. Alongside this, the immersive approach enables the development of relationships which will facilitate a greater flow of information and levels of trust to be developed, which will in turn contribute to the training being more relevant to the context and people it is designed for (Chambers, 1983 p59 and 2005 p177).


5.4.3 Design training strategies

The development, as part of this research, of a design training strategy supported by a framework of bilingual and graphical training materials, represents an original approach to training in this context. The key elements of this strategy are:

- The use of participatory techniques to communicate and collaboratively explore the application of design to crafts practice.
- The use of market, customer and user research to inform the design process.
- The use of three-dimensional sketching by the craftspersons, coupled with participatory decision making techniques to facilitate the process of concept selection and development.

The testing of this strategy with a wide range of crafts groups and co-facilitators enabled its refinement and ensured its relevance to the crafts sector in this geographical area. The development of this strategy makes available to other researchers and practitioners a tested first level model for strategic methods and tools for design training in this context.

5.4.4 Key principles of engagement for design practitioners

The design training strategy is supported by a series of key principles for engagement, derived from the experience and learning gained in this project. These principles seek to guide best practice in approaching and working with crafts groups in this development context. They encourage a self reflective approach with the aim of focussing on the priorities and needs of the crafts people rather than on the perceptions and prescriptions of the intervening parties. They are discussed below.

1. Participatory approaches

Applying the principles of participatory development approaches promote effective engagement with participants.

- A self-reflective approach

  The use of a self-reflective approach guides the attitudes of the intervening party and helps with the building of more equal relationships.
Chapter 5 Findings Conclusions and Recommendations 5.4.4

- Participatory techniques

Specific participatory techniques facilitate learning with the local people and inform any proposed intervention. Above all, participatory approaches can empower the local population to determine their own development needs and strategies.

2. Time in the contexts

Enough time is required for a thorough understanding of the broader context in which crafts groups operate and how they identify market opportunities, and develop, make and sell products, so that relevant and sustainable design training interventions can be planned and delivered. Time is also required to build relationships to provide a foundation on which to build training interventions. Building relationships with local people is an important factor in dealing with unintended mistakes and offences.

3. Communication and language

- Learning the local language

Learning the local language even to a basic level is an effective way of communicating training points because it contributes towards breaking down social barriers and to levelling relationships, both of which are necessary to obtain accurate social and technical information, as well as communicating with participants.

- Using interpreters

Interpreters in training workshops need to communicate accurately. It is useful to provide them with a set of pre-translated illustrated training prompts so that accuracy of translation can be checked in real time.

- Complementary communication methods

The use of complementary communication methods such as sketching, modelling, acting, demonstrating and the use of storytelling via translators that require little or no knowledge of the local language was confirmed as being valuable. Skills in some of these areas are more likely to exist within a design and making context.

4. Rewards and incentives

Crafts groups often have little or no excess resource to invest in developing their enterprises. Any intervention that requires time or resources from the crafts group should, where possible, offer some form of appropriate compensation for lost income. It was found that this works well if the crafts people understand the value of the intervention. In some
cases, an incentive might help the crafts people to become involved and then understand the potential longer term benefits of training.

5.5 Recommendations for further research

As this study concludes there are areas that would merit further investigation. The first four of these recommendations can be taken as individual projects or, as is suggested, form facets of a wider impact study.

5.5.1 An impact study

Having established in this study that there is potential for crafts groups to derive benefit from design training, a more detailed study is required to assess the impact of focussed design training on the livelihoods of crafts people over a longer period (4.3 and 4.5.9). A longer-term study over a minimum period of twelve months following design training would allow researchers to observe, record and quantify the influence of design training on crafts groups. In addition to this, the crafts group’s influence and possibly its changing influence will need to be considered in the broader context in terms of economics as well as any social, cultural, environmental and political changes.

5.5.2 Extended use of the training framework

As part of the impact study discussed above there would be benefit in a more extensive study of the use of the training framework proposed in this study to refine it for a wider group of trainees, for example other crafts groups, or even using some of the techniques in training outside of the field of crafts.

5.5.3 Training-trainers

As a second phase to the study, the training interventions would be designed so that training is targeted at individuals who have the ability, means and motivation to train others. This training-trainers approach has been discussed and applied to a small extent in this study (3.2.6 and 4.5.9). A more in-depth study, which uses this training strategy with a particular focus on training design trainers, will provide necessary information for the design of more sustainable design training interventions. The term sustainable in this case is primarily used to refer to the ability for an enterprise to
continue trading and supporting the craftspeople and dependants involved. The broader sense of the influence of the enterprise on the environment and community must also be understood as described above.

5.5.4 Design mentors
The training of crafts trainers to act as mentors for trainee craftspeople would be a valuable development of the training-trainers strategy, thus providing role models and fostering a community of designer makers (3.3.3.5). An alternative approach would be to provide further training to those who have been formally trained in design, preferably from the same country or region, to enable them to act as mentors for craftspeople. Both of these approaches are identified by others (Crawley, 3.3.3-5, Guimarães, 1995 p290 and Poston, 1994 p40) as ways of providing support for craftspeople who, having been trained, are attempting to apply design principles to their own practice.

5.5.5 Design in development contexts in ‘developed’ economies
The principles explored in this study are not necessarily exclusive to countries and contexts that would be understood as ‘developing’. Many of the same principles could be taken and applied to development contexts such as urban deprivation and post-industrial areas in need of revitalisation in countries otherwise understood as ‘developed’. Examples of similar initiatives are reported by Christopher Arnot in an article in the Guardian (Arnot, 2001) and reports from organisations such as Spice (Dineen, 2011), the Young Foundation (2009)(Hostick-Boatle and Hotle, 2011) and the New Economics Foundation (2001a and 2011b).

5.5.6 Informing development practice
The literature review confirmed that the idea of design having a positive role to play in development has been proposed since the end of the Second World War (3.1.18). However, this has not been successfully communicated to those national and international development organisations who engage in the majority of development activity. An impact study as described above would provide much needed hard evidence of the role of design, which can then demonstrate to such agencies, using provable case studies, the benefit of design training to crafts enterprise in development contexts.
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