Challenging Your Field

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WELCOME
We are very pleased to be hosting this year’s research practice course (RPC) conference. Our aim was to define a conference theme that would be equally approachable to all the post-graduate research students involved, by selecting a topic that is shared by all. This was not an easy task, since the subject of each research project across the schools is as diverse as the individuals undertaking that research. Nevertheless, we did come to the agreement that one thing we all share is a commitment to make a contribution to our chosen fields.

As you may be aware, a contribution to knowledge is a fundamental requirement of any doctoral research programme, and one which at first sight can seem to be a daunting prospect. The first step toward this goal is to identify what your area is, and then to become familiarised with the work that has been done in it. Only after these initial steps can you hope to understand its current problems, and locate the gaps in knowledge that exist between the people and practices that comprise your specialised area of study.

To make a contribution in this way, therefore, means that you need to get to know the academic landscape, and identify your own position within it. This involves associating yourself with certain methodologies, and distancing yourself from others. The best way to achieve this mapping of the terrain is through a thorough critical analysis. This doesn’t mean that one should only criticise the things we don’t like or don’t understand; it means that a systematic analysis of current knowledge is a good method of clarifying the relationship of your own research to that of others who have gone before you. If not, one runs the risk of either repeating what has already been done, or neglecting some vital aspect which could undermine your claims to new knowledge in your field.

The word ‘field’ is a good metaphor to describe the position of a researcher, whether you feel that it is already familiar or if it seems bewildering and incoherent. You may even find yourself in a position where you are trying to connect different schools of thought that do not traditionally fit together. In any case, some kind of exploration and mapping will aid your pursuit of creating new knowledge, and will certainly be beneficial when you try to relate what you have found to others who may not share your specialist understanding. That is the purpose of this conference. We hope to provide a platform where you can tell others about where you are and what you have found. In doing so, you will hopefully gain confidence in your own abilities by practicing the craft of presenting your research, and listening to how others have gone about their own academic explorations.

As we practice these skills, we all benefit from an increased knowledge of the academic landscape. We get to know its boundaries, its unknown areas, the well-worn and comfortable paths, and the parts that are difficult to reach. There is, however, one way in which the metaphor of the academic field is unlike the fields and pastures on which sheep and cattle graze. Intellectual fields are unlimited; the more we know, the more we realize how little we know.

“In the last analysis magic, religion, and science are nothing but theories of thought; and as science has supplanted its predecessors, so it may hereafter be itself superseded by some more perfect hypothesis, perhaps by some totally different way of looking at the phenomena – of registering the shadows on the screen – of which we in this generation can form no idea. The advance of knowledge is an infinite progression towards a goal that for ever recedes.” (Frazer, ch. 69, para. 6)

REFERENCE
ABSTRACT
Within specialised textile collections, the ‘perfect’ artefact is often aesthetically desirable. Whilst items that have rarely or never been used such as wedding dresses provide an idyllic version of history, lower value items such as ‘work wear’ or mass produced items such as lace shawls that still hold important historical contextual information that can highlight significant cultural or social practices.

This paper presents a view of the innovation process relating to the design and production of weft knitted lace on the Lee hand frame and aims to explore the impact that non-specialist curators have in local museums and the resources necessary to enhance creative practice in this field.

Keywords
Textiles, Heritage, Lace, Museum, Conservation.

INTRODUCTION
The Lee hand frame has existed in England and Europe since the early part of the 17th Century, but it was not until the Great Exhibition in 1851 that the creative potential of the machine was truly recognised. The shawl makers of Shetland were producing a hand knitted openwork fabric which became incredibly popular and was therefore exploited dramatically when hand frame knitters began to experiment with machine attachments that would allow them to replicate this lace structure on their machines.

This led to a vast empire of hand-frame lace manufacturers, which thrived briefly before the inevitable advancement into power driven machinery. This lace structure was manufactured widely in England between 1850 and 1900 and yet there are few artefacts that remain to demonstrate how the hand frame was able to produce a fabric of technical and aesthetic merit. Creativity in textiles has, in the past, been measured according to what was seen as beautiful, expensive, and ultimately a symbol of stature. This paper aims to explore the value of weft knitted lace as a tool for narrating the life of the working class knitters.

The Interpretation of Specialised Collections
Museum collections notoriously equate to being examples of the elite, and therefore worthy of recognition as the gatekeepers of public history. In their role as custodians of knowledge, the museum appears to be responsible for the both the artefact and the context surrounding what the artefact tells us about a perceived version of history.

Hudson’s view of museums as “a product of the Renaissance, a product of an aristocratic and hierarchical society which believed that art and scholarship were for a closed circle” (Hudson, 1999 p.378) leads us to question the emergence of smaller village museums during the latter part of the 20th century, which are run almost exclusively by non-expert members of the general public. Who is responsible for the artefact and how is this maintained? And what responsibility do we have collectively to safeguard the practices of the past so they are available to subsequent generations?

The textile collection at the Victoria and Albert Museum demonstrates artefact elitism prominently in an attempt to create a collection that is unsurpassed in both quantity and quality. Merriman (2004 p.85) defines museums as “a significant and powerful vehicle for the public construction of the past and for public involvement in archaeology.” Which combined with a vast visual history can help to define views on the ways we present the past and what these constructs allows us to know or not know.

To assess how we value and interpret objects, the meaning of which is “grounded in common human experiences” (Maquet, 1993 p.31) there must first be a level of contextual awareness available to ensure the correct classification of artefacts and must “give material form to authorized versions of the past, which in time become institutionalized as public memory” (Davison, 2005 p.186) This requires expert knowledge to ensure the correct contextual application of preservation and display and, in the case of weft knitted lace, an understanding of the technical processes involved in the construction process. Within smaller local museums that often operate without this theoretical underpinning, the likelihood is that those responsible for the care and preservation of the artefact will be unable to ensure its longevity and therefore risk losing the link that artefacts such as shawls hold concerning the role they once played in society.
Elite Artefacts or Damaged Goods?

The way in which meaning can be assigned to an object depends upon the audience that views it. Levin (2007 p.93) advocates the use of ‘Nostalgia as Epistemology’ which would successfully allow the viewer to decipher meaning based on their own personal experiences. Mason (2005 p.203) supports this ideal, if we consider that ‘meaning is not fixed within objects, images, historical resources, or cultural sites, but it is produced out of the combination of the object/the image/ the site itself, the mode of presentation, what is known about its history and production, and visitor interaction.’

The values necessary to establish ongoing epistemological support for historic creative practice would combine the attachment of meaning to textile artefacts in view of what is known about their origins, and ensuring that its heritage is considered when contextualising the artefact for display. Preserving the integrity of objects is “fundamentally ideological because it represents an ideal or a perfect circumstance that should be aimed for.” (Rogerson, 2006 p.213). This ‘perfect artefact is desirable to those seeking to provide a romanticised version of historical events that omits practices that fail to comply with prestigious notions of beauty and class divide.

The director of the Victoria and Albert Museum Mark Jones stipulates that in the case of their collections, a higher value is attached to things that have no utilitarian purpose. Whilst this equates to a more aesthetically pleasing display, it leads to the prioritisation of certain artefacts over others, such as wedding dresses, hand-made lace and artefacts associated with royalty.

It would appear that this environment requires an artefact to be of aesthetic rather than technical merit and may seek to categorise its collections “by definition, location, and visual rhetoric” (Davisson, 2005 p.189). So it is here that the case of weft knitted lace can play a part in redefining the spectrum to which textile artefacts are considered to be of significant contribution to knowledge. The use of technical examples as part of a didactic display can provide an opportunity to question the way in which collections are managed and to seek the story that is neglected. According to Prown, “An artefact is something that happened in the past, but, unlike other historical events, it continues to exist in our own time. Artefacts constitute the only class of historical events that occurred in the past but survive into the present.” (Prown, 1993, p.2). It is therefore necessary to develop a new construct that protects objects of cultural and historical significance regardless of their perceived low value status.

The significant silences that museums hold in the way they select, manage and interpret collections (Jordanova 2006 p.129) gives an augmented version of events that fail to incorporate multiple perspectives on textile heritage. This neglects certain groups of artefacts which fall outside the aesthetic or hierarchical boundaries required at leading heritage institutions, but that still hold important historical contextual information. If we consider that “memory is what we can recover in order to give voice to the disenfranchised, the oppressed and the silenced” (Gable and Handler, 2007 p.60) then Ruddington Framework Knitters’ Museum in Nottingham can illustrate the processes required to give back the workers’ voice.

Established by the local community in 1972, the museum at Ruddington incorporates a large framework knitting workshop which holds twenty hand frames a small number of which are still fully operational that can be demonstrated and tried under supervision by visitors. This enhances their experience and understanding of the conditions endured by the original machine workers and gives a greater insight into the technical superiority required to undertake more delicate and intricate knitting work such as hand transferred lace. In this way Ruddington goes some way to ensure the audience is made aware of the voice of the working man, and it is small museums like this that are now responsible for representing this social class.

In this way they play a powerful role in the interpretation or resources and how these can be used to shape collective memory (Davisson, 2005 p.184). What a community is able to understand about its heritage evolves from the resources made available and their grounding in both material culture and historical context. In this way, Macdonald and Silverstone (1999 p.425) identify “the growing sense of the changing and subjective nature of the principals on which museum objects are selected.” This evolution is now used to incorporate work-wear and other lower value items which are often omitted from larger museum collections.

Up until the 1960’s collections were made up almost exclusively of prestigious items, which was then influenced by the dramatic social revolution that brought about an interest in social order and identity and the voice of the ‘working man’. Collections of weft knitted lace did exist, but were either held as individual garment examples in private collections by individuals, or as technical samples by the knitwear and hosiery manufacturers. With the decline of the knitwear industry in Britain, many of these collections were destroyed to avoid cases of industrial espionage, and many private collections were donated to local heritage centres that were often unaware of the conservation requirements of such items.

Collective Memories and Enthusiastic Amateurs

To encourage the development of a system of display that identifies multiple historical perspectives, and
enable different stories to be told about the same artefact, the use of oral history has emerged as a “valuable research tool for accessing first-hand experience” (Lomas 2000 p.363). Using oral testimony to highlight the social interaction that influenced textile production requires access to relevant trained professionals and industry experts, which poses a problem in that there are only a minimal number of specialists left. In this way the research becomes more challenging, as it is necessary to trace the story of the development and production of weft knitted lace through the few remaining expert resources left available.

Thomas Schlereth, academic pioneer of ideas of material culture suggests that “collections are crucial to museum identity” (Schlereth, 1992 p.315) and within this, the task undertaken by those that care for collections must assimilate an implicit understanding of the social, cultural political and historical contexts that surround textile collections and ensure that the identification of knitted artefacts avoids “simple misrepresentation of the objects” (Stam 2005 p.64). This process is rendered almost impossible in small museums settings where maintenance of textile collections relies on local volunteers, the majority of which have no official museum training, technical experience or specialised vocabulary. Jordanova (2006 pp.61–62) suggests that the vocabulary we use in heritage environments such as ‘factual’ and ‘empirical’, ‘theoretical’ and ‘conceptual’ – affirms a separation between ‘raw’ data and what is done with them.’ If a smaller museum is run by non-experts, the attribution of meaning and context is often lost and this has a negative impact upon the level to which the objects can be successfully cared for. Macdonald and Silverstone (1999, p.426) theorise that “as the authority of those [classification] systems has weakened… so too has their defining power over other categories, particularly in this case over categories of display.”

The collection of knitted artefacts held in the archive of the now defunct Costume and Textile Museum in Nottingham avoid this situation since there is no permanent exhibition on display, and therefore more attention can be given to methods of storage and containment of delicate artefacts and specialist object research. However with the lack of a current expert in post, this may also not occur.

As many of the products of the hand frame were cheaply made and therefore highly perishable, there have been few examples that have survived to study and therefore piecing together a narrative of the history of framework knitted lace becomes complex. Expert in practical knitting on the hand frame, Peta Lewis defines the main disadvantage of the physical properties of weft knitted fabric as “the loops being dependant on each other for the stability of the fabric” (Lewis, 1985 p.69) so any damage or wear to the surface of the fabric can cause it to perish rapidly, hence the lack of historical examples.

In this case, as we cannot have confidence that historical examples of weft knitted lace will survive indefinitely we must ensure that the technical knowledge and practical interaction with old knitting machinery continues to allow for the production of historically accurate weft knitted lace. The operation of the hand frame is learned through repetition of technique to achieve a level of autonomy provides a tacit knowledge which the student absorbs through being immersed in the working environment and learning the physical hardships endured by the workers. This level of practical interaction combined with museum practice has not been attempted at this level before and subsequently there is an opportunity created for a innovative practice.

The key resources in this research are the small number of knitted lace manufacturers that still exist who are knowledgeable in this creative field. G. H. Hurt & Son, a lace shawl manufacturers, was established in 1912 and is one of only a minute number of lace-knitwear companies to survive today. The owner Mr Henry Hurt took over the company in 1955 and continued to use the Lee hand frame in a commercial capacity well into the 1960’s. Now the traditional skills and machine are used as a source of inspiration for innovative new products.

**Fig.1 Damage to weft knitted lace shawl, c.1890. (Reproduced with kind permission of the Museum of Costume and textiles, Nottingham)**

The Interpretivist Knitter

This leads us to think about ways in which innovative approaches to creative practice can provide a new perspective not only on what the machine can be used to produce, but what future generations will know about framework knitting. By exploring contemporary interpretations of traditional machine lace patterns there is a link formed between the technical and the creative aspects of production.
According to Newman, “Works of art, when considered as symbolic goods, only can be fully understood by those who have sufficient ‘cultural capital’ to interpret the coded meanings held within them and this may be correlated with educational attainment” (Newman, 2005 pp.232–233). This echoes the prior statements relating to non-expert collection management, and encourages knowledge transfer through a process of learning to use the knitting machine, applying experience of modern knitting techniques and then allowing scope for conceptual interpretation.

It is here that the role of the maker or craftsperson is brought into view. The interaction of the maker with the machine and the raw materials creates an environment in which fabric can be created as part of an artistic vision. This sensory interaction identifies “the importance of the sense of touch which can carry a status at least equal to visual aesthetic.” (Gale and Kaur 2002 p.63)

As a designer-maker it is my role to combine knowledge of what is essentially a dying craft with academic thought and an artistic mindset to create a new vision of the creative limitations of the machine. Part of this interaction is grounded in the acceptance of multiple historical or creative viewpoints which combined with the oral testimony mentioned earlier can be a significant help in deciphering the human story behind an object or artefact.

According to Lomas, (2000 p.363) “Oral history has grown in academic value from its early development as a form of ‘democratic’ history.” This approach to exploring historical perspectives through storytelling can also be utilised in museums as a “part of the participatory interactive approach to teaching in the museum” (Berry & Mayer, 1989 p.161). As a result, how we approach conceptual applications falls into two categories: Textile ‘Craft’, which “exemplifies a skill that is historically weighted and demands a physical interaction”, but which “cannot be decanted into purely conceptual thoughts – as textile art can” (Gale and Kaur, 2002 p.65), and textile ‘Art’, which explores concepts and theories without the need for a historical underpinning, but which often incorporates one regardless.

CONCLUSION

George Bernard Shaw, avid social reformist and writer speculated that it is not what we know that makes us knowledgeable, but how we apply it to ensure that future generations can continue to learn. He rather more eloquently wrote: “We are made wise not by the recollection of our past, but by the responsibility for our future.”

This responsibility lies within the belief that innovation can impact upon tradition to alter our perception of the approaches to creative practice.

“At another conceptual level altogether, there needs to be a critique of how and why historical achievement is still understood as being derived from the supposed quality of the primary sources.” Jordanova (2006 p.162)

Within my own research, I have discovered varied work ethics can link together concepts of mechanical expertise, rhythmic operation, and creativity in pattern design to create a new approach to creative practice and weft knitted lace production. It also highlights the responsibility needed to uphold social and cultural traditions in a museum setting and, as discussed by Kavanaugh:

“Eventually the past becomes a contemporary construct built out of present-day interests with the materials that immediately come to hand. This holds risks. History can become many things: a political tool, an escape route from present realitites or the key to liberation” (1990).

If we wish to continue to be able to debate the notions of creative significance in weft knitted lace products, there is a need for an evolution in textile practice that ensure the skills of the past are learned, maintained, and passed on. An enhanced apprenticeship scheme preserves the skills of the hand frame knitter and combines them with necessary links to commercial or conceptual outlets that support creative contextual awareness. Without this action, there will ultimately be a gap in knowledge that is impossible to revive.

In conclusion, the ink between historical conservation and preservation of knowledge relies upon interdisciplinary collaboration and discussion which can join together historical and academic rigour with a conceptual approach to creative design to allow new ideologies and identities to be discovered. As Corsane demonstrates, these interactions are the next step in achieving innovative thinking and practice.

“When heritage, museums and galleries, become sites and spaces where a multiplicity of voices can be heard and different representations found, they open up places where dialogue can take place.” (Corsane, 2005, p.9)

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New Rhythms of Pattern: An exploration of digital craft for printed textile design using motion capture technology

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ABSTRACT
In search of creating new visual imagery for printed textiles and finding an exploratory method of creating interesting print patterns, this research is inspired by pattern formation in natural sciences. Previous studies investigating the use of digital technology in Textile Design by Bunce (1993), Briggs-Goode (1997), Treadaway (2006), Townsend (2003), Carlyle (2005) indicate that it is able to support the creative process at the generative stage of idea development through to the production of the final artefact. In the context of such “hybrid practice” in printed textile design this paper explores motion-sensing technology, to develop print patterns from hand movements used in communicating visual forms.

The focus of the study concerns how body movements such as; gestures in Non-verbal Communication (NVC) can be captured and expressed visually as print patterns. What kind of patterns can be generated out of these body movements? Can the patterns be transformed as printed textile patterns?

This investigation reviews motion-capture in the period before and after the invention of computers – the Pre and Post Computational period – and applies the ideas involved within those techniques. Thereby the research context creates a space for a futuristic textile print development by digitally translating invisible body movement data into a visible form. The research introduces motion capture of hand movements as a generative [Boden, Edmonds, 2009] method of producing spontaneous print patterns. This project uses Pierce's triadic method of index, icon, symbol to enable the analysis of the printed pattern, for any semiotic significance they would have, to evaluate their communicative ability.

The central contribution of this paper is its insights into a new sort of creative process, a discussion about useful theoretical frameworks through which to understand this process. It lays foundation for future research direction, which is textile print design in “real time process”.

Keywords
Patterns, Motion capture, Textile design, Generative, Digital craft

INTRODUCTION
Context of Motion Capture in Art & Design

The history of movement capture can be traced back to the late 1800's when Etienne Jules Marey (1914) and Eadweard J. Muybridge (1887) first performed motion studies of various animals and humans. Inspired by Marey’s study of movement, Marcel Duchamp (1912) and Giacomo Balla (1912) produced their futurist [Marinetti, 1909] work, which depicted motion as painted on to a single frame. Dr Harold Edgerton, in the late 50's recorded movement that the unaided eye could not see with his development of the electronic stroboscope, Edgerton set into motion a course of innovation centered on a single idea making the invisible visible.

Figure 1. (a) Eadweard Muybridge "Animal Locomotion. Plate 99. First Ballet Action. [M.370] Copyright, 1887. (b) Etienne Jules Marey, Chronophotographs from “The Human Body in Action,” Published in Scientific American, 1914. (c) Dr Harold Edgerton, Densmore Shute Bends the Shaft, 1938

The “Post-Computational period” captured movement as data using computer technology. The use of sensors added a new dimension to the process. Data could be captured from invisible sources and transformed to a visible and tactile form almost instantly.

For instance, Karim Rashid’s “Mutablob” (2004), Marcel Wander's (2001) and FRONT Design’s (2006) products are a result of capturing invisible movement and its translation into a three dimensional tactile form which is later produced by rapid prototyping methods.

Then there are some recent notable commercial applications of movement technology, the Nintendo
Wii and Apple’s iPhone. By employing gesture-sensing controls they have changed the way we operated mobile phone and played video games.

In the field of fashion and textiles, Hamish Morrow’s S/S (2004) catwalk show and the ‘telematic dress’ by Johannes Birringer and Michele Danjoux (2005) embrace these new movement capture technologies and explored them to represent their new ideas. While Morrow captured digital light reflections from a model’s body movements and projected them on to garments as virtual prints, the ‘telematic dress’ captured body movements of a performer to interact with another in far away location. Similarly 1 of 1 design studio creates one-of-a-kind, made to order apparel, “The Tissue Collection”, designer Cait Reas worked together with C.E.B. Reas to generate the Tissue images by defining algorithm and translating them into images with code and software which was later printed digitally to fabrics. The outcomes of all these projects are interlinked by the context of body movement capture and application in fashion and textiles.

These studies show that a range of types of movement can be captured and transformed with digital technology into various two-dimensional and three-dimensional forms expanded into their applications i.e. phones, games etc. As Gen Doy (2008) says in the context of Interdisciplinary Research:

“Should the outcomes (product) be functional…they would start ‘conversations’ for sure …isn’t it a new function.”

The above context creates a space for a futuristic textile print development by digitally translating invisible body movement data into a visible form. It also lays foundation for a “real-time print process” where a performance could be translated and printed simultaneously although they are based in different geographical locations.

Generative Textile Print Design System

The proposed print design system uses computer vision to capture body movements in a conversation as binary data and translates it into a vector path. By using available assorted brushes such as line, dot, etc. in vector graphics software (Adobe Illustrator) the vector path could then be transformed to a continuous pattern.

The system introduces motion capture and transformation of hand movements as a generative method of drawing print patterns. This system allows users to interact with a computer through their hand movements to create spontaneous print patterns.

In future this system proposes to a stage of performance where the performer uses his body movements to create a textile print pattern. Even if the performance were repeated again it would not produce same identical set of patterns. Digitally produced textile prints were always associated with mass-produced and precisely identical products but by using the above generative process we can produce ‘one-off’ textile prints that are never repeated.

In his seminal work The Work of Art in the Age of Mechanical Reproduction (1968), Walter Benjamin made an assumption that the very nature of art is defined by (among other things) the way in which it has been produced and materialized. By revisiting Benjamin’s notion, the project establishes that ‘digital craft’ is manifested in this work as a design method, which promotes the creation of print patterns through processes of digital data capture and its transformation to a visual form.

DESIGN PROCESS

Capturing hand movements used in British Sign Language

The design process initiates with the translation of a poem in British Sign Language (BSL). Etymologically, ‘translation’ means, ‘carrying across’ or ‘bringing across’. In this experiment the poem is ‘carried’ from one convention (English literature) to another (BSL) to then be further ‘carried’ to a machine language to make a print pattern. The final outcome of this translation is non-representational form (abstract) in itself. The form (Fig. 4) does not convey the meaningful expression used either in the poem or in the BSL interpretation but creates an expression, which stands for itself. It represents a possibility that a poem could be translated to a visual form. If so does the form represent continuity in communication like the poem and the sign language intended to do. What does it communicate? Is it legible? Visually the form is a composition of fine curvaceous lines and it can be perceived as a silhouette in motion only in relation to the video film that represents BSL recitation. The BSL
recitation can be understood in relation to the poem and the poem can only be understood in relation to its literature context. This relation puts forward an ontological enquiry if the form actually means or relates to something. Within the formal boundary of Textile Design “communication is not the explicit intention and that the decision is made purely upon aesthetic pleasure derived from them” (Briggs-Goode, P.192). But in this project the patterns are a result of a continued communication and in order to make sense it should also continue communicating the translation.

Visual Capture, Transformation and Analysis of the pattern

The experiment used a HDD camcorder attached to the computer (computer vision) to capture the entire sign interpretation of the poem as a film, which is simultaneously divided into frames at the rate of 29F/sec.i (Fig. 5). The generated frames are then saved individually in TIFF (Tagged Image File Format) in a single folder location so that they can be processed to trace finger movements as a vector path. The LiveTrace tool in Adobe Illustrator was found competitive to convert these TIFF images into editable vector paths.

Figure 5. (a) Video film (b) Video movement tracking (c) Tracking movement

The above figure illustrates the process of tracking movement in a film. The set of tracked finger movements, which were generated as scattered lines, were then blended seamlessly by vector blending tool to generate an un-repeated pattern (Fig. 7). This particular pattern represents the first verse of the poem…

“Tyger! Tyger! Burning bright,
In the forests of the night,
What immortal hand or eye
Could frame thy fearful symmetry?”

Visual Analysis of the pattern

Visual analysis (Semiotics is the study of sign processes (semiosis), or signification and communication, signs and symbols, both individually and grouped into sign systems. It includes the study of how meaning is constructed and understood.) by eminent semioticians such as Ferdinand de Saussure, Charles Sanders Pierce, Roland Barthes and Charles Morris, have explored images/text, into categories, which relate to language, image and meaning. This project uses Pierce’s triadic method of index, icon, symbol to enable the analysis of the printed pattern, for any semiotic significance they would have, to evaluate their communicative ability.

(a) Icon: As an Icon (… a sign that denotes its object by virtue of a quality which is shared by them but which the icon has irrespectively of the object) the form resembles closely to Boccioni’s Fist (post modern futuristic sculpture) produced by Balla in 1914 (Fig. 8). In this context the generated pattern represents a dynamic, energetic and ferocious subject (The Tiger) in digital media notation. It also signifies that digital translation can lead to visually unpredictable form.

(b) Index: As an Index (…a sign that denotes its object by virtue of an actual connection involving them, one that he also calls a real relation in virtue of its being irrespective of interpretation) the pattern represents digital expression. If compared to (Fig. 8b Paul Henry’s Picture by Drawing Machine 2) the linear form resonates that the pattern is drawn by a computer. It communicates the poem in BSL interpretation as Art, whose meaning resides in the process of translation.

(c) Symbol: As a Symbol (…is a sign that denotes its object solely by virtue of the fact that it will be interpreted to do so.) Its close resemblance to Japanese script (Fig 8 c: Mu, meaning emptiness) explains that although the pattern is abstract in nature, it can possibly have a literal meaning that could
represent “The Tiger” in a new visual sign language (digital media).

Figure 8. (a) Boccioni’s Fist produced by Balla in 1914 (b) Dr. Desmond Paul Henry, Picture by Drawing Machine 2 (c) Mu, Emptiness in Japanese

This analysis finds the generated pattern as an art form that signifies digital translation can lead to visually unpredictable form, whose meaning resides in the process of translation and it can have a literal meaning that could represent the subject in a new visual sign language (digital media).

Conclusions & Future Research Directions
The unique design process explored within this paper supports the statement that digital medium allows the creative process from the generative stage to the final artefact. The generative stage in this case is the translation of the poem in BSL and its video film capture. The computer and its peripherals including the software’s used in the process dictate the print pattern outcome. In the process the final form does not retain the meaningful linguistic expression used in the poem and its BSL interpretation but it establishes that Digital translation can produce unpredictable forms, beyond our imagination. The project creates a base for playful human & computer interaction in producing textile prints.

The central contribution of this research is it insights into a new sort of creative process, a discussion about useful theoretical frameworks through which to understand this process. It lays foundation for future research direction, which is textile print design in “real time process”. It will look into the possibility of creating prints in future to translate Non-verbal Communication (NVC) (Argyle, 1988) visually as print patterns as a method of exploring “digital craft”.

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ABSTRACT
This paper will discuss some of the historical details of how women’s clothes were cut and constructed in the period from 1890 to 1910 and report on the initial findings of a project which is examining the design characteristics of clothes from that time. The study draws on the work of Arnold (1966), Bradfield (1968), Johnston (2005) and Waugh (1968). The work examines the recording and cataloguing of women’s clothing from 1890 to 1910. The focus of the analysis is on how women’s clothes of that time were cut and constructed to ensure longevity. This leads to an analysis of the meanings and values that clothes held for women.

Practical explorations of garment design and construction are being carried out at a local costume collection. The documentation of outfits uses digital photography and detailed drawings of garments and their construction details. The principal of ‘alterability’ is expected to figure significantly, with fashion details valued more for functionality and longevity rather than as social signifiers. It is anticipated that the work will be an addition to the documentation and recording of garments from this period and that it will demonstrate by the use of photography, drawing and record keeping and the compilation of a data base how methods used in the field can be developed.

Keywords
Women’s clothes, construction details, database.

INTRODUCTION
This paper will review some of the historical details of how women’s clothes were cut and constructed in the period from 1890 to 1910 and report on the initial findings of a research project which is concerned with the design characteristics of women’s clothes from that time. The work was originally stimulated by a small archive of family letters written between siblings, four of whom were sent from Birmingham, England to Canada for adoption in 1893. The project has three strands: the letters; the analysis of the cut and construction of period garments with the future design of garments in mind; and the interviewing of direct descendents of the original family.

The work on the correspondence consists of the transcription and analysis of the text and then the examination and identification of any direct or indirect references to clothing and issues surrounding clothes with consideration of the values and meanings expressed. The work on objects will consider the exploration and investigation of clothing worn by ordinary women from 1890 to 1910. Examples of such garments have been accessed by purchasing them from vintage clothing shops, through the study of such items in the Leicestershire costume collection and also through the receipt of a collection of garments from the 1900s. The third aspect of the work is the interviewing of women who are direct descendents of the original family and the transcription and analysis of these interviews.

The work on objects considers how women’s garments were cut and how they were constructed in the period and reveals a lack of available information about ordinary women’s clothes from this era on museum websites. The discussion of the interviews to date has identified a number of issues concerning quality, timelessness, investment and the retention of garments with previous relationship attachments. The literature review section focuses on the historical discussion around garments of the time, the cut and construction, sustainability, consumer issues and some of the sociological and philosophical matters which are raised. The literature review also highlights the fact that there is a gap in the material available about detailed investigation into the cut and construction of women’s clothes in the era (1890 to 1910) and on the values and meanings that clothes held for women of that time.

This work is being conducted as a case study focused on the women from one family and the meanings and values that clothes held for them in the past and today. In order to do this it will be using the concept of grounded theory as a starting point; developing this with phenomenology and semiology and in doing so will draw on the work of Barthes, Flugel and Veblen.

WORK ON OBJECTS
A significant element of this work is the investigation and exploration of clothing worn by
ordinary women from 1890 to 1910. Access to these items was initially through purchases from vintage clothing shops and through the costume collection at Leicestershire and also more recently through the gifting of a small collection of garments from the 1990s. At the beginning of the project it was decided to investigate the possibility of examining extant clothing in an accessible costume collection.

In order to begin the process of understanding the meanings and values of women’s clothes in the 1900s it was felt that a ‘hands-on’ approach was needed. Initially, Nottingham Museum and Leicestershire Museum were contacted and arrangements were made to have access to the Leicestershire collection on a fortnightly basis. This arrangement gave the researcher an opportunity to develop her understanding of how garments were cut, how they were sewn together, different systems and methods that were used and how they were finished. After the first two acclimatisation visits I developed a process of drawing, photographing and record-keeping for each garment that was scrutinised. These data collection methods were adapted from aspects of established models of artefact analysis.

The development of the methodology for the project drew on the work of Pedley (1998), Buamgarten (2005) and Styles (2008). Pedley’s work on museum acquisition, labelling and record keeping assisted in the development of a formalised terminology that could be used to standardise the record keeping of each garment, which enables patterns to become evident in the recurrence of small details. Buamgarten’s work on examining clothes from the 18th century in the USA assisted in the clarification of some areas for investigation in the differences found in clothing from other eras. I was able to identify particular details that were clearly related to the period I was looking at, such as the use of the sewing machine for the seams but also at the same time using hand stitches and therefore giving a ‘hand-finished’ aspect to all other areas of the garment. Styles work on 18th Century garments using information such as the court records of clothing stolen from washing lines, the clothing of runaways described in newspapers and the insurance claims for clothing lost in fires in the UK demonstrated methods of gathering, quantifying and recording such ephemeral data.

In terms of accessibility and suitability the collection at Leicester was found to be the most fitting. A regular timetable of fortnightly visits was established with organised and systematic access to the 1890 to1910 sections containing women’s clothing. Access has been arranged from 10:00am until 16:00pm with a room set aside and with a workspace provided.

The collection at Leicestershire has approximately fifty-five examples of women’s outfits dating from 1890 to 1910 that are not currently being exhibited and are available for detailed examination. These outfits are hung on open rails in the storeroom and consist of dresses, skirts, bodices, jackets and a small number of waistcoats and coats.

All the available women’s garments from the period in the collection are going to be examined. Although this is only one collection which has relied on donations rather than on a process of deliberate acquisition, there are a large enough number of garments to give an overview of the kinds of clothing worn by women of the day. On examination it is evident that these clothes are not couture, designer garments but are clothes that have been made by tailors or dressmakers not always local to Leicestershire but of a local nature. None of the items is in pristine condition and all of the items show signs of wear and tear. Matching items such as a skirt and bodice are hung together on one hanger. There are other examples of women’s clothes from the period that are of a more fragile nature and which are stored in boxes. To date, sixty-six garments have been examined and recorded, of which thirty-one were skirts, twenty-four bodices or jackets, nine dresses, one coat, and one waistcoat. All of those explored have been photographed and documented, with twenty also having been drawn in detail. The items which have been drawn reflect the types of garment available with details that demonstrate their cut and construction whereas those not drawn show only very basic details or have details which have already been shown in earlier drawings.

A system of photographing the exterior of each garment along with the interior construction details was established. The details of each garment were recorded with the set of descriptive terms as explained earlier and which began to reveal a set of recurring details. The third element of this process has been the drawing of the interior construction details. This practice in itself provided a much more thorough record and method of examination of how the garments had been cut and constructed and demonstrated at the most micro level how garments were being made. This process made it possible to focus on small details without loosing the context of the whole garment. These three methods also enabled me to record and show the type of tacit knowledge, skill and method that were used everyday by dressmakers. The concept of tacit knowledge and skill has only recently evolved as an aspect of this work and may provide another element of the contribution to knowledge.
As this work progressed it became apparent that a useful and original data base was being compiled. It was necessary to investigate the possibility of other such work in the field. The published work of Waugh (1968), Arnold (1973), and Bradfield (1968) were all established as authorities. Their work consisted of drawing the external and internal details of period garments although their work focuses on earlier periods. More recently published work in the field is that of Johnston (2005) with two colour photographs of the internal construction of garments from the 1880s. Both of these illustrations show couture garments from the 1880s rather than the clothing of ordinary women which is the focus of this work. The existence of a database with this type of information on clothing from the UK has also been sought on costume museum websites and apart from one image of an early 19th century bodice on the V&A website none was found. It is anticipated that the development of a database exploring the construction details of women’s everyday clothing from 1890 to 1910 will play an important role in this work’s significant contribution to knowledge. The process of analysing the characteristics of women’s dress from the era began and a model of attributes started to become apparent. What these are and how important they were to women is discussed in the full report. It is now considered necessary to investigate what might be available in costume collections elsewhere for comparison. This is still being researched but to date the results are as follows. Investigations found that the Nottingham collection was not presently accessible, Platt Hall is currently closed for renovation, Bath costume museum has a focus on Georgian costume and the V&A is too far away for in depth and regular access. Other smaller collections do not have such an extensive collection of garments applicable to this work or are too distant but the possibility of another comparable collection is still being looked for.

INTERVIEWS
The third and possibly most significant strand to the work is the interviewing of family descendents of the original letter writers. It is anticipated that this aspect will play a major role in the work and its contribution to knowledge. Pilot interviews have been conducted to test the validity and relevance of the proposed interview structure and techniques and with some provisos they demonstrate the utility of the approach. The interviews were designed to be analytical and relational rather than enumerative. The results of the interviews are being imported onto the computer package known as NVivo. This work is ongoing and it is anticipated that it will enable the coding, retrieval, organisation, grouping and linking of the documents produced as a result of the interviews.

Christopher Breward comments on how “the curatorial process enriches and is enriched by a reflexive understanding of research” (2008). Two areas in the field of clothing converge here: one is the world of creative fashion design and the second is the world of the museum. In this paper I have attempted to show how the creative and reflexive processes being undertaken as an integral part of research can inform and support the work of a costume collection.

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Organizations and Complexity:
Challenging the Newtonian Style of Thinking

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ABSTRACT
Why organizations become out of control is a radical question that always has been a serious issue for managers. This can be addressed by studying two main approaches to management: the Newtonian style and the complexity mindset. This paper will challenge the Newtonian style of thinking and argue that organizations are complex systems which exert special properties such as nonlinearity, unpredictability, instability, and self-organizing. In addition, this paper will explain that complexity science has a potential to help managers in today’s world with high rate of uncertainty to manage their organization more effectively by getting a holistic view instead of reductionist view. Moreover, this paper will explicate how complexity theory can help managers to administer organizations in uncertain and complex situations.

Keywords
Complexity, management, organization.

INTRODUCTION
One of a managers’ concerns is keeping the project in control. In Oxford online dictionary (2009), management is defined as “the control and organization of something”. Encarta encyclopedia (2009) defines management as “the techniques and expertise of efficient organization, planning, direction, and control of the operation of a business”. As it is clear, ‘control’ is a common term in both above definitions and many other definitions that are expressed for management. In fact, managers are people who are in charge to control the performance of a business, a project or a process. To do so, many tools and techniques can help manger to keep their business affairs in control.

However, despite of great development in management concepts and techniques, controlling organizations is a tough job that sometimes cannot be done as it is expected. Usually managers complain about the deadlines that were not met, targets that are slipped, vague strategic visions, and missions that are poorly communicated (Stacey et. al., 2000). These issues may take out organizations’ control from mangers’ hands. It is stressful for managers to be the ones who are in charge but who find that they are not in control. The reason that managers fail to control their organizations is that they persist to predict unknowable future that is impossible. Although they can guess some up-coming circumstances by analyzing available data and previous experiences, the future is still recognizable only when it arrives. Hence, managers need to think about a new way to look at the future and the way that organization can be managed and controlled.

NEWTONIAN ORGANIZATIONS
Organizations, as social entities which control themselves and pursue a specific goal, are one of the important parts of management and business studies. Much effort has been done to investigate how people act within organization and how an organization should be managed to meet its goals. The current dominant notion about managing organizations has a root in a Newtonian style of thinking with universal laws of a linear type such as gravity (Darwin, 1996; Stacey et. al., 2000). The Newtonian style of thinking explains that a phenomenon consists of discrete and objective elements that can be studied by separating the whole phenomenon into its parts or elements (Tsoukas, 2005). This is called reductionist approach. Newtonian thinkers also believe that there is a law-like association among elements of a phenomenon that should be identified by finding a linear causal relationship. Based on these laws, a mechanistic model will be constructed to predict the future and take control of the phenomenon (Tsoukas, 2005).

Newtonian-style thinking has been quite successful in applied sciences and engineering. Hence, based on this noticeable reputation, many attempts were made to bring the Newtonian view to management studies. Frederick Winslow Taylor (1856–1915), an American mechanical engineer, was one of the first people who brought Newtonian thinking from engineering to management by developing scientific management principles. To make working process stable and predictable, and eliminate human variability, Taylor removed all responsibility from the workers, leaving them only with their particular tasks. He believed that workers do not need to think and should act as a machine and repeat a same job.

Taylor also thought that the only incentive that can motivate workers is money (Pettinger, 1994). It means that the more a worker works, the more he earns, and vice versa. Taylor’s approach was absolutely based on
the Newtonian style of thinking by using a reductionist approach towards activities: identifying laws (the best practice), using a linear causality in terms of the incentive system, and predicting the outcome by promoting objectivism. Taylor's scientific management and the Newtonian view are still the current dominant approach towards managing organization. This notion encompasses (1) predicting the future, (2) choosing proper strategies, (3) preparing detailed planning, (4) motivating human resource, (5) measuring progress, and (6) controlling organization.

Although in many situations of everyday life Newton's mechanics work well, in organizations and management field it has proved much less successful (Darwin, 1996). The reason is that the world of organizations is different to pure science realms. Newtonian view might work well under conditions of low speed, low change and high predictability. However, in today's fast-paced world of organizations with high rate of uncertainty, this traditional approach does not work anymore. Today's organizations are characterized with high speed, high change, high unpredictability and high stress (Douglas, 2004). They work in turbulent business conditions and competitive market. In addition, they have complex structure with multiple departments making them politically sensitive.

Effective organizational management is possible by changing the current way of thinking (Newtonian style) to a new mindset that enables organizations to compete in volatile business environments and dynamic workplaces. This new mindset, in contrast with the Newtonian mindset that is based on stability, is derived from the assumption that change, uncertainty and unpredictability are the norm in today's organizations (Douglas, 2004). This new mind set is offered by science of complexity that will be expressed more in the following.

COMPLEXITY THEORY
Complexity is a new paradigm that intends to discover the laws governing systems that are made up of a large number of interacting agents, whether those systems are a national economy, an ecosystem, or an organization. (Belgian Federal Centre for Complexity and Exobiology, 2009). This theory was founded on researchers' attempts to rationalize the behavior of complex systems, believing usual laws of nature cannot describe them. Complexity is a context-dependent concept, as there are several complexity theories that arise from different disciplines such as biology, mathematics, physics, chemistry, computer and social sciences (Mitlenton-Kelly, 1997). However, the principle of complexity theory is that there is a hidden order to the behavior of complex systems (Encyclopedia of Management, 2007). To study this hidden order, complexity focuses on parts, wholes, relationships and the environment of complex systems. To study a complex system a researcher should be aware about three points: (1) the causality relationship among agents of a complex system is nonlinear; (2) the future is unpredictable; and (3) explaining complex systems is only possible by taking a holistic view instead of reductionist view.

Generally, complex systems have three properties: (1) evolution and self-organization; (2) aggregate behavior; (3) non-determinism and dynamic structure (Holland, 1992; Mitlenton-Kelly, 1997; McCarthy, 2003). Evolution happens in a Darwinian fashion. The system changes as its environment changes. Yet, when the system changes, it will also affect its environment because the system is a part of the environment. When the environment is changed again, the systems should change too. This constant cycle of feedback usually happens in complex systems (Holland, 1992; McCarthy, 2003). Aggregate behavior emerges from the interaction of agents and is not necessarily derived from the actions of them (Holland, 1992). Non-determinism means that it is impossible to anticipate precisely the behavior of such systems even if we completely know the function of its constituents. Hence, by reducing a complex system into its parts we cannot discover its future performance. Moreover, dynamic structure of complex systems limits functional decomposability. The reason is that the system has a permanent interaction with its environment and its properties of self-organization allow it to restructure itself (Pavard and Dugdale, 2007).

COMPLEXITY AND ORGANIZATIONS
As it was explained before, today's business is characterized with a high level of uncertainty that comes from the fast pace of changes. Change in organizations is an important issue as it can be both constructive and destructive. A manager's major concern is in how an organization becomes stable and how stability leads to a novel situation. In fact, organization of any kind can be seen as the interplay of stability and change. For a better understanding of change and stability, the source of these two concepts should be studied. Stacey et al. (2000) believe that identifying the source of both change and stability has to do with causality. The reason is that to make the organization stable, managers should predict the future. The possibility of prediction and control depends upon manager's ability to identify causal links (Stacey et al., 2000). What causes organizations to become something that they are and what causes them to be stable or instable are at the focal point of this discussion. Stacey et al. (2000) expressed that there is a causality spectrum which shows the way people think about change and stability. Newtonian mindset is one side of the spectrum that emphasizes stability and the
predictable nature of change. The other side belongs to complexity mindset that emphasizes change and its unpredictable nature. The differences between Newtonian mindset and Complexity mindset is illustrated in Table 1, which was developed by (Douglas, 2004).

**Table 1: Differences between Newtonian mindset and complexity mindset**

<table>
<thead>
<tr>
<th>Newtonian mindset</th>
<th>Complexity mindset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability is the norm</td>
<td>Chaos is the norm</td>
</tr>
<tr>
<td>The world is linear and waterfall-like</td>
<td>The world is intricate and spider web-like</td>
</tr>
<tr>
<td>A good plan is a prediction</td>
<td>Uncertainties; we can’t predict</td>
</tr>
<tr>
<td>Minimize change</td>
<td>Welcome change</td>
</tr>
</tbody>
</table>

To elucidate the causality spectrum, two concepts of mechanism and organism that were developed by Immanuel Kant (1724–1804) should be described. Mechanism is a functional unity in which the parts exist for one another in the performance of a function (Goodwin, 1994). Organism is a functional and a structural unity moves to a mature form which is unique in a particular context (Webster and Goodwin, 1996). For making a mechanism (e.g. a clock) a finished notion of the whole should exist. In the clock example, the final function that is recording the passing time exists. Based on this function, different parts should be designed and assembled to meet the aim of the mechanism that is keeping time. However, for an organism, like a plant, parts (roots, stems, leaves and flowers) are not first designed and then assembled. Actually, the parts are emerged from interaction within the plant and the environment (Stacey et al., 2000). It means that in contrast with a clock, parts of a plant do not exist before the whole plant. The differences between mechanism and organism are summarized in Table 2.

**Table 2: Differences between mechanism and organism**

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Organism</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Idea</td>
<td>needed</td>
</tr>
<tr>
<td>Parts</td>
<td>parts exists before the whole and should be designed and made</td>
</tr>
<tr>
<td>Planning</td>
<td>Goal directed</td>
</tr>
<tr>
<td>Interaction</td>
<td>not important</td>
</tr>
<tr>
<td>Future</td>
<td>Predictable</td>
</tr>
</tbody>
</table>

Managers’ belief in mechanism or organism reflects how they manage their organizations. Sherman and Schultz (1998) also confirm that complexity theory “...is about how our ideas shape our behaviors. If our ideas about the world in which we operate are machine-like and mechanical, our behaviors will be very different than if our ideas are based on that of complex adaptive systems, which are more evolutionary and organic.” Based on this idea, a manager with a Newtonian mindset hardly can manage an organization that is working in a complex world. Hence, the manager is likely to feel frustrated and under stress most of the time because his or her actions are in conflict with reality (Douglas, 2004). Therefore, there is a need to change the way of thinking about organizations and take an organic view towards them to address issues related to uncertainty, unpredictability and complexity.

It is believed that complexity science can present a holistic perspective to organization in which the whole is more than just the sum of the parts. Organizations are living systems which consist of several Parts. Parts are interacting in nonlinear style and forming organization systems. Organizations are interacting with each other as well to form mega-systems such as industries and economies. The main differences between two mindsets explained before is that organizations cannot simply be divided into the parts to be understandable without consideration of interactions among parts, irregular patterns and nonlinear behaviors. Other distinctions between Newtonian approach and complexity approach to management are summarized by Douglas (2004) are illustrated in Table 3.

**Table 3: Differences between Newtonian style and complexity style of management**

<table>
<thead>
<tr>
<th>Newtonian Style</th>
<th>Complexity Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliver on the planned result</td>
<td>Discover the desired result</td>
</tr>
<tr>
<td>Use the plan to drive results</td>
<td>Use results to drive planning</td>
</tr>
<tr>
<td>Aim, aim, fire</td>
<td>Fire. Then, redirect the bullet</td>
</tr>
<tr>
<td>Establish stronger procedures and policies</td>
<td>Agree on guidelines, principles and values</td>
</tr>
<tr>
<td>Keep tight control on the process</td>
<td>Keep the process loose</td>
</tr>
<tr>
<td>Be a task master</td>
<td>Be a relationship manager</td>
</tr>
</tbody>
</table>

**LESSONS FOR MANAGERS**

The Newtonian management style, which believes that managers can predict the future accurately, choose strategies, measure activities and control them can not address today’s characteristics of businesses with unstable situation of economy, shortage of resources
and credit crisis. In contrast, the complexity mindset has many lessons for managers. Three of these lessons are described below.

The first lesson is that in an uncertain world the future is not predictable, and that successful strategies emerge from complex and continuing interactions between people in a self-organizing system (Rosenhead and Mingers, 2001). Letting an organization self-organize does not contradict the need for strategy. Rather, it means that organizational strategy should evolve based on feedback and change as it occurs (Business, 2007). Therefore, a high level of agility to become adaptable to changes is a requirement for longer-term success of organizations.

Another lesson is that, organization should place itself in a region of bounded instability, to seek the edge of chaos, rather than trying to consolidate stable equilibrium (Rosenhead and Mingers, 2001). In fact, seeking for stable equilibrium will lead to failure in relationship among the organization and its environment. Working in the edge of chaos instead of a perfectly planned corporate, will release creativity and will lead to an organization which continuously renews itself (Rosenhead and Mingers, 2001).

Complexity theory also changes the role of managers. This notion defines the job of managers as people who prepare a clear vision for the company, provide effective leadership, express and encourage organizational values, and provide a basis for open communication instead of becoming involved in planning for unknowable future, detailed decision-making, and controlling people (Rosenhead and Mingers, 2001).

Conclusion

The Newtonian style of thinking, which promotes predictability, linear cause-and-effect relationship and detailed planning in management, is criticized in this paper. Instead, complexity mindset was introduced, that is a way of thinking about the complex world. Complexity explains that intrinsic properties of interaction and relationship among parts of a complex system would be the cause of emergent coherence, which is unpredictable. Organizations are complex systems. Hence, the Newtonian view cannot help us to manage organization effectively. Managers should take a holistic view towards organizations and deal with them as complex systems instead of machines. Managers should attempt to recognize emerging organizational patterns and business trends and adjust organizational strategies to them. Clear vision, leadership, corporate values and open communication are critical subjects that managers should take into account for achieving organizational goals. In addition, managers should administrate their organization in a way that accident and law interact. They should know how and where to keep the system from neither descending into chaos nor becoming rigidly ordered.

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Rhetorical use in critical design: the role of satire, ambiguity and the familiar

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ABSTRACT
In this paper I will introduce rhetorical use in critical design. I will discuss the mechanisms used in critical design to afford rhetorical use. The discussion is based on themes that have emerged from a series of interviews with critical designers as part of my PhD investigation into Contextualising critical design. In the paper I elaborate on Dunne’s notion of “narratives of consumption” (1998) and suggest what is needed to establish these narratives.

To construct these narratives and persuade the user to imagine the use of artefacts, traditional ideas of function need to be reconsidered. Through project examples and interview material I suggest how this form of consumption is designed to shift emphasis from the object by demonstrating its feasibility and the experiences it can offer. By rethinking consumption in this way design can be used as a powerful form of critique both in disciplinary and societal discourse.

Keywords
Critical design, function, rhetorical use.

INTRODUCTION
Developing a critical perspective in design is difficult. The design profession sees its work as inextricably linked to the market place. Design outside the commercial arena is viewed with suspicion and considered escapist or unreal. However, Industrial design is beginning to find ways of operating outside the restraints of commerce and industry. It is adjusting to the social, political, economic and technological conditions of today by developing alternate roles for itself.

Product design is thoroughly integrated into popular culture; as a result the design profession is seen as inextricably linked to the market place. Design outside the commercial arena is viewed with suspicion and considered escapist or unreal. However, Industrial design is beginning to find ways of operating outside the restraints of commerce and industry. It is adjusting to the social, political, economic and technological conditions of today by developing alternate roles for itself. It needs to establish an intellectual position and develop theoretical perspectives, or the design profession is destined to lose all credibility and be viewed simply as an agent of capitalism.

Radical design emerged as a counterpoint to the functionalist approach. Throughout the 60's Italian designers were instrumental in advancing the debate in design. Based on a general dissatisfaction with the role of a mere henchman of industry, and therefore part of the production process of a market economy, a provocative design culture emerged, which produced statements rather than consumer goods. In the search for materials suitable for independent ideas, answers were found in the areas of industry and everyday life. For the first time designers did not produce designs for industrial production, but instead used readymades from industrial production and incorporated them into their own products.

The relationship between object and user was also about to change. Designing emotional products which would beyond mere functionality generate added value 'for the soul' became one of the new guidelines. The process of making an object one's own was already implicated in the design process itself, even if the otherwise rather quirky products left little room

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for ulterior uses. In comparison to the Bauhaus, who understood design as a method of social education, Italian design attempted to create new and unusual experiences in relation to objects.

With specific regard to product design, interest in criticising everydayness can trace its development in reaction to the design of the 1980’s, with its elaborate use of materials and finishes and hyper-styling of forms. In the 1980’s designers such as Daniel Weil began to pick up on hints of alternate aesthetics suggesting that a formal design might disappear into the assembly of profound materials, thus producing forms that were ad-hoc exposed and by their nature unfinished.

In the early nineties Droog design was established by critic Renny Ramakers and jewellery designer Gijs Bakker. Droog pulled together a number of furniture designers whose work was based on experiments by graphic designers such as the groups Hard Werken and Wild Plakken. Droog designers had taken an antiauthoritarian spirit, an interest in the vernacular, and a concern for the environment and translated it into work that had the quality of collage and looked like propaganda. However, the work was disciplined by a strong sense of proportion, legibility, and all the other traditional attributes of good design. This provides a familiar sensibility to the work and I’d suggest that this is a key attribute in any form of critical design today.

Droog designers saw their task as gathering objects on the streets and reusing them, with the designer adding only something invisible; the concept. Their work was successful because they did not want to add new forms or ideas; they felt they should reuse those as well. The result was objects such as Tejo Remi’s chest of draws, which were more or less traditional in their shape, but consisted of various pieces of discarded furniture. Since neither image type nor material was new, the shock of the familiar assembled in a new manner was all the stronger.

The conceptual turn in the nineties together with new thinking in interaction design set conditions for Antony Dunne’s Critical Design popularised in Hertzian Tales (1998). Dunne introduces the idea of product design and electronic objects fusing into Critical Design; where the objects function goes beyond efficiency, and practicality in use, to include the poetic. Dunne achieves this by reframing the designer as author and thus user as reader and states:

*But critical design must avoid the pitfalls of the 1970’s by developing strategies that link back to everyday life and fully engage the viewer.* (2001, p.59)

**DESIGN AS CRITIQUE TODAY**

Today critical design has evolved to loosely describe unorthodox design practice aiming to expose the current state of design. It seeks to avoid or challenge conventional production and consumption. It offers alternative perspectives within design. It is located outside terms set by capital or production, countering conventions of utility and technology; conditions Bernard Waites describes as the ‘American Ideology’. (1989)

Critical designs are produced as prototypes for exhibit rather than sale and are as Ramia Mázé says, “less about problem solving and more about problem finding within disciplinary and societal discourse.” (2007, p.211) In successful critical design the design encourages the user to reflect on the object, and conditions surrounding the object, by affording a form of rhetorical use.

**RHETORICAL USE**

In order for this approach to be effective the designer must establish “narratives of consumption” situating the object and establishing context. The design should persuade the user to imagine use and question: what would need to change in our reality for this object to exist?

We don’t actually have to use the proposed objects, by imagining them being used they have an effect on us. To achieve this, the objects’ should provide a type of experience Martin Amis calls “complicated pleasure”. (1987, p.ix)

In various critical approaches this is achieved through the development of material fictions. Julian Bleaker describes this process as “reality effect” describing how:

*Artfacts become real through the activities of the agents who engage in the task of giving the artefact meaning proper to the idiom in which the agent operates.* (2004, p.v)

In their enquiry into the role technology plays in society Dunne and Raby describe their use of real and value fictions:

*If in science fiction the technology is futuristic while the social values are conservative, the opposite is true in value fictions. In these scenarios the technologies are realistic but the social and cultural values are often fictional or at least highly ambiguous*. (2001, p.63)

The aim of these material fictions is to encourage the viewer to ask themselves why the values embodied in the design proposals seem fictional or unreal, and to question the social and cultural mechanisms that define what is real or fictional. The idea is not to be negative, but to stimulate discussion about material objects and everyday life. This is done by developing alternative and provocative artefacts which set out to engage people through mechanisms of satire, defamiliarisation and estrangement.
Noam Toran employs these mechanisms in Desire Management, a collection of sequences about the use of objects as vehicles for dissident behaviour. Domestic space is defined as the last private frontier – a place where bespoke appliances provide unorthodox experiences. In this example, a couple engage in their baseball-driven fantasies facilitated by Toran’s product design.

To be successful, these proposals require a certain ambiguity. The suspension of disbelief is crucial, and strangeness is key. However, if the artefacts are too strange, they are dismissed, and if not strange enough, they are absorbed into everyday reality. They have to be grounded in how people behave. This approach is based on viewing values as raw material and shaping them into objects. Materialising unusual values in products is one way that design can be a powerful form of critique. Dunne and Raby reflect:

Anthony Dunne: I think there has to be a sense of... For one; general success is if it makes you think. If the things, people dismiss them or don’t engage that’s disappointing. It’s like they don’t work. Their workingness is that they get people to question. But they do it by having to be odd and odd doesn’t mean weird if they are too weird then they’re just not going to work. So their oddness is a really important element.

Fiona Raby: And there’s a seduction in there isn’t there?

AD: There has to be a seductive layer, to say we always have to make things as well as we can. They look-- they’re seductive even if they are diagrammatic they are nicely proportioned so you want to be attracted to it.

FR: But also I think the narrative which we position something in-- its not just the object. We craft the narrative and the context as well that’s part of the process.

AD: The parallel thing is important too it suggests it’s close to reality but removed where if it were a far away land that would be a problem for it. So somehow trying to suggest as you said you could imagine using it but you probably won’t, and it’s the why won’t? What would stop me from using this that is important? (2009)

Dunne and Raby’s approach is exemplified in Blood/Meat Energy Future (Fig. 2), which explores different energy futures. The hypothetical products explore the ethical, cultural and social impact of different energy futures. This scenario looks at meat-based microbial fuel cells. Meat-powered electronic products.

REDEFINING FUNCTION

These designs derive their interest through their potential functionality and use. However, the user has to be prepared to read these objects as such, which requires a particular critical eye. This is something that is either learned or developed and a skill that is not particularly widespread. To read the designs requires us to challenge and redefine traditional notions of function.

Function is widely discussed in literature on design (e.g., Baudrillard, 1996; Buchanan, 2001; Greenhalgh, 1990; Krippendorff & Butter, 1993; Papanek, 1984), however, it is far from being a clearly defined term. The discussion mainly focuses around the modernist dictum ‘form follows function’, which has prevailed since it was coined by Louis Sullivan in 1896.

The notion of function in design commonly designates the object’s practicality in use. This is exemplified in discourse on User-centred Design, which employs user-participation to reach the optimisation of design with regard to use. Today, efficient functionality is taken so much for granted. Dormer contentiously describes the optimisation of products with regard to their function:

This is what differentiates the 1980s from 1890, 1909, and even 1949 – the ability of industrial design and manufacturers to deliver goods that cannot be bettered, however much money you possess... Beyond a certain, relatively low price... the rich...
cannot buy a better camera, home computer, tea kettle, television or video recorder than you and I. (1990, p.124)

Optimisation and performance has been the main focus for designers. There is however a lack of concern with the nature and effect of artefacts, as Daniel Miller writes:

This lack of concern with the nature of artefact appears to have emerged simultaneously with the quantitative rise in the production and mass distribution of material goods (1987, p.3).

Addressing this issue, Dunne turns Dormer’s statement into a challenge for the designer:

The most difficult challenges for designers of objects now lie not in technical and semiotic functionality, where optimal levels of performance are already attainable, but in the realms of metaphysics, poetry and aesthetics where little research has been carried out. (1998, p.28)

The strong faith in modernist beliefs has provoked much criticism in the postmodernist era. Thackara writes:

This particular debate, in which modernism and functionalism are conflated, has tended to divert attention from the aesthetic to the tactical; there is nothing inherently ‘modern’ about ‘function’—design has always had a functional element. (1988, p.23)

Post-modernist criticism of modernist functionalism may be traced back to an overemphasis on the structural and physical aspects of function in the Bauhaus era. Ligo (1984) calls these aspects, which were implicit in the dictum ‘form follows function’, “structural articulation” and “physical function”.

Ligo shows that function is not a one-dimensional thing. He classifies five aspects or levels of function: structural articulation: refers to the object’s material structure (p.21); physical function: refers to the utilitarian task/value of the object (p.37); psychological function: is explained as pertaining to the user’s emotional response to the object (p.49); social function: refers to the nature of the activity that the object provides with regard to the social dimension (p.61); cultural-existential function: has a more profound cultural symbolic which includes the existential being of the individual (p.75). Ligo’s classification is useful in that it presents the various aspects of function. Niedderer, (2004 p.63) groups these five aspects into two areas according to their different nature:

<table>
<thead>
<tr>
<th>Operational function</th>
<th>Symbolic function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural function</td>
<td></td>
</tr>
<tr>
<td>Physical function</td>
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<td>Psychological function</td>
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<tr>
<td>Social function</td>
<td></td>
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<tr>
<td>Cultural function</td>
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</tbody>
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Figure 3. Niedderer’s (2004) conceptualisation of Ligo’s (1984) aspects of function.

It is in the category of symbolic function that “narratives of consumption” are established. However, the “operational” and the “symbolic” function together constitute the “generic function”, which she explains as the generic underlying “plan for action” (2004, p.63). This allows us to recognise an object for what it is, regardless of its shape and appearance.

Although the material form is one mode through which function becomes apparent, function is not equal to the form nor is it fully visible in the form.

An object’s function becomes fully visible in its second mode, in use, which is pinpointed in the definition of function as “the special kind of activity proper to anything” (OED 2009). The definition emphasises function as an immaterial quality that is bound to the dynamic use of the object. This has two implications dependent on the perspective. Firstly, function might be understood as the plan of action that the object represents and where designer and user share their understanding about the intended purpose of the object. Secondly, it might be understood as the perception of use, which emphasises the appropriation of the object through the user according to their needs as Maze describes “through processes of interpretation, incorporation, and appropriation into the user’s lifeworld”. (2007, p.2)

This indicates that function has its counterpart in use, which means, although function and use are normally assumed to converge in the contextual understanding of efficient functionality, they do not have to do so. The problematic of function–use arises because the reading of function from an object’s form – function as subject to the designer’s intention (Ligo, 1984) – is open to interpretation. Consequently, function itself is open to willful appropriation within use and subject to the intentions of the user.

Current approaches to the aspect of use by critical designers’ (Dunne 1998; Dunne and Raby 2001; Ball and Naylor 2006) are concerned with this aspect, i.e. that the object itself is always open to interpretation. It is the openness and the interpretive element in a critical design that allows the user to engage in use and consume the object in a symbolic imagined and intellectual way.

CONCLUSIONS

Critical design takes on roles that are conceptual or discursive. The advantage of design is that it might go beyond rhetoric by means of material form, everyday utility, and interaction. Design and form may be employed to materialise propositions about concerns located outside of design. For example, design may employ product models and use scenarios to support alternative ideological agendas within an industrial context and make these fathomable through a popular language of design and a familiarity with product in our everyday.
In the first case, critical design practice operates from the edges or even outsides to escape or challenge the centre.

In the second, practice is a basis for operating in specific ways outside industrial design and challenge the role design plays in boarder societal issues.

Integral to both is the ability to persuade the user, reader to imagine use through establishing and presenting context. A familiar design aesthetic cleverly matched with satire (or other such compositions) communicates use and provokes discourse around the object. Framing the artefacts as a design and considering function and use as an immaterial quality, provokes a different discourse that if framed in any other disciplinary frame, for example, art.

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ABSTRACT
This project will investigate whether architectural conservation can be divorced from the politics of national identity. In this paper I propose that the destruction of Irish Georgian architecture in the 1960s onwards is retrospectively ascribed nationalistic overtones due to associations with other iconoclastic gestures during the same period in Dublin, and the attention given to Dublin’s Georgian buildings has defined the wider field of conservation around them.

Keywords
Nationalism, postcolonialism, Ireland, Dublin, Georgian architecture, conservation, heritage.

INTRODUCTION
‘Postcolonial’ theory does not sit comfortably in Ireland. Several authors have proposed that Ireland lies on the periphery of postcolonialism, including Carroll and King (2003) and Rynne (2008). The main tenets of this argument include the country’s Occidentalism, close geographical proximity to Britain, and Christian orthodoxy. This project proposes that Ireland’s marginal relationship with postcolonial theory has resulted in the exacerbation of politicised and iconoclastic gestures to the historic built environment, and will attempt to remove the postcolonial stratum from the layers of meaning attributed to that heritage.

The term ‘post-colonialism’ and ‘postcolonialism’ are problematic. Various definitions exist, with the inclusion and exclusion of the hyphen increasing the problems of application. Van Dommelen notes that “postcolonial studies can at the very least be characterized, if not defined, as a specifically Western analytical perspective about representing colonial situations and structures” (in Tilley, et. al. 2006: 104). Ashcroft, et. al. state that the term ‘post-colonialism’ “deals with the effects of colonization on cultures and societies … ‘post-colonial’ had a clearly chronological meaning, designating the post-independence period” (2007: 168). Slemen notes one of the ways in which the term post-colonialism is used: as “a condition of nativist longing in post-independence national groupings” (1994: 16).

Rynne (2008) disputes the usage of this term in relation to Ireland. He notes that Ireland was complicit in the British Empires other colonial exploits, and that the Irish were ingrained in Britain’s 19th century industrial development. In addition, the Irish are white, Christian, and the country is physically located adjacent to Britain. Therefore, the assertion that Ireland has an ‘indigenous’ population is problematic. In an impassioned plea to save the landscape around the Hill of Tara, County Meath, from the construction of a motorway, one protestor posted the following on the World Archaeological Congress’s mailing list: “So here I am, an indigenous Irish person asking for help and for you to live up to the ethics you set your organisation” (Bleach, 2008). The Hill of Tara has several phases of development from Neolithic times, and in the 19th century several ‘Monster Meetings’ were held there by Irish politicians, who, when calling for independence, were also reminding the Irish populace of their ‘native’ or ‘indigenous’ past.

IRELAND
Ireland gained independence from Britain in 1922 and the newly formed country was called the ‘Irish Free State’, later, the ‘Republic of Ireland’. However, in the negotiations between the Irish and British parties, it was agreed that six counties in the north of the island would remain under British rule. These six counties became known as ‘Northern Ireland’, and it was this partition which later resulted in the ‘Troubles’. The quest for a national Irish identity was not just a phase in post-independent Ireland. The Gaelic Revival gathered pace in the 19th century, and was firmly established by 1922. After independence a period of re-invention commenced. Most of Dublin’s streets were renamed, mostly after Irish politicians, for example: Sackville Street became O’Connell Street, after the 19th century Irish political leader Daniel O’Connell. In the decades afterwards symbols of the British Empire, such as intentional monuments to British monarchs and statesmen, were removed.

Ireland maintained a neutral status during World War II, and so did not suffer the bombing of cities as happened in Britain, which had resulted in the loss of much architectural heritage there. And so, Ireland entered the 1960s with much of its Georgian building stock intact. Georgian architecture is a building style constructed between the years 1714 and 1830: the period of reign of the Hanoverian kings George I, II, III and IV. At that time Ireland was under British rule, and Dublin, often referred to as the as the Empire’s second city during colonisation, was also subject to the construction of this building style. Ypma states, “Less pompous and more ascetic than its English counterpart, Irish Georgian style was a simpler, perhaps purer translational
of the classical heritage on which the Georgian "rule of taste" was based" (1998:13). The redevelopment of Dublin in the 1960s made up for the lack of destruction during the preceding decades. The mass demolition of Georgian Dublin has generally been attributed to negative attitudes forged by nationalistic sentiment against this form of architecture and what it represented. But was this destruction an act of iconoclasm, or were other factors at play?

THE 1960s
On the 50th anniversary of the 1916 Easter Rising Nelson's Pillar on O'Connell Street was blown up by a splinter group of the Irish Republican Army (IRA). The latter can be considered an act of iconoclasm. O'Brien noted the following in the days after the bombing of the Pillar:

"Senior police officers who had the more congenial, less exacting, job of looking stately and supervising the work, were found, on close view, to be grinning broadly. 'An absolutely expert job – not a window broken in the Post Office – perfect', said one. Said another: 'I just met a man who was out in Easter Week. He tried to blow it up then and didn't succeed.' And a third: 'They will go wild about this in America'." (1966: 1)

Such comments comply with Gamboni's idea of widespread endorsement of such acts. He states: "the use of 'iconoclasm' and 'iconoclast' is compatible with neutrality and even – at least in the metaphorical sense – with approval" (1997: 18).

The destruction of Nelson's Pillar, and several other intentional monuments to the British Empire, can be considered blatant acts of iconoclasm. The wilful destruction of Dublin's Georgian architecture has also been ascribed nationalistic overtones. Such negative attitudes are frequently cited in the literature. Kevin Nowlan, President of Dublin Civic Trust, noted:

“Our record as a community, in relation to the care of our architectural heritage, in Dublin and elsewhere in the country was not a very happy one. Too often historic quarters and their houses were seen as 'obstacles to progress' or where regarded, even by high office holders, as 'the relics of colonialism'” (in: Keohane, 2001).

Ypma stated: "The rush to 'modernize', unfortunately, was also a rush to knock down everything belonging to the past. The country's impressive collection of Georgian buildings was of little interest to the independent Irish, to whom it represented no more than a symbol of English Protestant exploitation" (1998: 13). O'Leary stated: "The nationalist idyll is a rural one. Much of Dublin's character and its beauty bears the stamp of the old Empire ... So we allowed the destruction of so much of those beautiful squares out of a sort of nationalist spite" (2008). Thus, there is general acceptance that the destruction of Georgian Dublin was underpinned by nationalism.

NATIONALISM
Kohl summarised Hobsbawm's 1992 work on Nations and Nationalism: 'nationalism is the program for creating nations and exists prior to the formation of the nation' (1998: 226). Hobsbawm states: The "nation" as conceived by nationalism, can be recognized prospectively; the real "nation" can only be recognized a posteriori (1992: 9). The partition of Ireland has had a powerful effect in keeping nationalism alive almost 90 years after independence from Britain had been achieved. This continuing nationalism cannot just be attributed to Sinn Féin and the Irish Republican Army. There are many subtle day to day sights and behaviours that ensure nation forming persists. Billig coined the term 'banal nationalism'. He argues that "Daily, the nation is indicated, or 'flagged', in the lives of its citizens. Nationalism, far from being an intermittent mood in established nations, is the endemic condition" (1995: 6).

In view of the above, the influence of nationalism on the historic built environment can be considered in the following ways. The conservation of architectural heritage ultimately involves a 'conservation deficit'. This means the conservation of, for example, a Georgian building will cost more than a new build due to the specialist skills and traditional materials required for a conservation project. The newly formed Irish state had a struggling economy, and priorities other than the upkeep of its architectural heritage. The Fianna Fáil minister, Kevin Boland, is often remembered for his antipathy to Georgian architecture and the individuals and groups who were campaigning to save it. During parliamentary debates in 1970 he stated:

“I make no apology whatever for saying that the physical needs of the people must get priority over the aesthetic needs of Lord and Lady Guinness and Deputies Dr. FitzGerald, Dr. Browne, Desmond and all the other Deputy Doctors that we have. I make no apology for saying that, desirable as is the preservation of old buildings of architectural merit, while I am Minister for Local Government and while the needs of the people for housing, water and sewerage services remain unfulfilled, not one penny of the capital allocation that it is possible to make available to my Department will be spent on such preservation, desirable as it is. That is not to say that every possible effort should not be made to conserve as much as is feasible of this part of our national heritage for as long as possible” (1970).

The problems associated with the conservation deficit and Dublin's Georgian terraces are explored by Kearns (1982), and in 1986 Mawhinney was arguing for the creation of conservation grant schemes at local authority level.

HERITAGE VERSES CONSERVATION
It can also be argued that Irish conservation and architectural heritage has become synonymous with Georgian buildings. The Irish Georgian Society does little to dispel this myth: The Irish Georgian Society states it "is Ireland's Architectural Heritage Society".
Reporting on the existence of an Architectural Officer in the Heritage Council, Battersby stated: “There is more to Ireland’s architectural heritage than Georgian Dublin” (2001). Irish local government is composed of five city councils (Dublin, Cork, Galway, Waterford and Limerick), five borough councils, 29 county councils and 75 town councils (Department of the Environment, Heritage and Local Government, 2009). The city councils employ ‘conservation officers’ and ‘heritage officers’, while the county council employ ‘heritage officers’. The latter are given financial and technical support by the Irish Heritage Council. Thus, it could be postulated that ‘conservation’ equates to cities, while ‘heritage’ is a more rural phenomenon. Vernacular architecture is then positioned under ‘heritage’ and not conservation, with ‘heritage’ ultimately being more Irish. Slemen’s “condition of nativist longing” (1994: 16) perhaps responds to the rural (heritage) rather than the urban (colonial). Foster recognised “the concept of being ‘more’ or ‘less’ Irish than one’s neighbour; Irishness as a scale or spectrum rather than a simple national, or residential, qualification; at worst, Irishness as a matter or aggressively displayed credentials” (1988: 596). But, where does Georgian architecture fits on this scale or spectrum? Perhaps it could be considered that its position changes, which will be demonstrated later in this paper.

Earlier O’Leary asserted that “the nationalist idyll is a rural one” (2008). If levels of Irishness are qualified through the vernacular, then a major act of Billig’s ‘banal nationalism’ can be recognised in towns and villages across the country. In the 1990s a trend began in Ireland where the render of buildings was removed in order to expose the random rubble construction beneath. This subtractive change is falsely held to be a traditional Irish building style, and is referred to by Mullan as “lumpy wall syndrome” (in: Buttmer, et.al. 2000). The Heritage Council tried to halt this trend with their catchphrase, “Don’t get stoned, get plastered” (Battersby, 2001). The reasons behind this ‘fashion’ have not been fully explored. Could this be a form of Billig’s ‘banal nationalism’? In 1922 the Irish Builder and Engineer stated: “In Ireland, the question of brickwork is of some considerable though not primary interest. This is a stone country, and therefore, so long as masons are to be obtained in the country districts, masonry will hold its own.” Random rubble is the principal building material in Irish vernacular architecture, especially in the west of the country. The lime render cover is also part of the vernacular tradition. This imparts a more formal appearance, especially when smooth, similar to stucco. By removing the render, a more ‘rustic’, but inauthentic, appearance is achieved. If stone equates to ‘Irishness’, do the materials brick and render liken to the ‘other’? Could this ‘vernacularised formal’ be a form of competitive Irishness?

Other such forms of banal nationalism can be found on the streets of Ireland’s cities, towns and villages. Victorian and Edwardian post boxes, still carrying the Crown emblem, were painted from red to green after independence. Sinn Féin spokesman Sean Crowe remains indignant at their continuing presence: “It sends the wrong message for an independent state to have the crown on public post boxes. They are pieces of antiquity but using the boxes is sending the wrong signal. They are a throwback to old imperial days and are symbols of the past” (Myles, 2008).

The field of ‘conservation’ has less credence in Irish heritage than in Britain. Such a lack of concern for the conservation, particularly of formal historic buildings, has resulted, ironically, in that field relying on the UK. For example, ‘tuck-pointing’ is a form of mortar pointing, used to disguise bricks of a lesser quality. This is called ‘bastard tuck pointing’ in Ireland (Keohane, 2001). However, Keohane notes that English Tuck (as it is referred to in Ireland) is currently used in restoration projects in Dublin. Whilst Keohane does not provide an explanation, it can be deduced that the craft skills for such specialist work are not available in Ireland, and so the English Tuck is adopted, utilising craft skills from the UK.

This ironic reliance on UK conservation was also demonstrated at an Institute of Historic Building Conservation Conference in Dublin in 2008, where most of the speakers came from the UK, again signifying the lack of development of the field of historic conservation in Ireland. Geraldine Walsh of Dublin Civic Trust presented one of their projects at that conference. She explained that at 21 Aungier Street later Victorian render was removed in order to expose the Georgian brickwork beneath. It could be considered that as a result of the previous destruction of Dublin’s Georgian buildings, well meaning acts are being undertaken in order to reverse that trend, with the resultant loss of later, valid, additions. But the changing attitudes towards the Georgian might also be used to confirm the point about “Irishness as a scale or spectrum”. It might be possible to chart Irish nationalisms and shifts in its postcolonial relationship with Britain by paying close attention to attitudes towards its stock of Georgian architecture.

CONCLUSION

Hanna (2009), citing Aidan McQuillan, notes that “In Ireland… the Georgian city stood outside the matrix of sites which created a physical narrative of the received national story.” Seen in this light, it seems that, to follow Hobsbawm’s a posteriori idea of the nation, Dublin’s Georgian buildings were demolished due to their associations with Empire. This would confirm Ireland’s status as a postcolonial nation; one that defines its ‘otherness’ in comparison to Britain. But, if it is proposed that Ireland sits on the fringe of postcolonialism, then acts
of vandalism could be construed as iconoclasm. That this is taken for granted in the literature and accepted as an *a posteriori* idea of the Irish nation are in fact accentuations used to reinforce the postcolonial state.

This is complicated by the fact that acts of iconoclasm in Ireland occurred during a period of major redevelopment in Dublin. The 1960s saw the bombing of Nelson’s Pillar and the demolition of Georgian architecture. Due to the close proximity of these events, it is unsurprising if the former imbued the latter with nationalistic political overtones. Equally, the perceived antipathy to Georgian buildings, and the emphasis on the vernacular as ‘heritage’ may have contributed to the field of Irish conservation having less popular appeal. These factors, allied with a nuanced reading of Ireland as a postcolonial nation, reveal much about the construction of the Irish nation. A key facet of that ‘construction’ is the fluctuating status of Georgian architecture – the legacy of Empire within a spectrum of Irish identity.

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Enhancing Cultural Innovation in the Built Environment

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ABSTRACT
This paper stems from the author’s on-going research on the sustainability of the built environment in developing countries. This piece of work aims to challenge the existing concepts in the built environment as regards to urban housing. It intends to showcase culture as an important element in the maintenance and continuity of an existing community. This research addresses the urban housing crisis question in developing countries using Lagos, Nigeria, as a case study. This project, The urban housing crisis: a culturally informed framework for the development of housing policy, a case study of Lagos Nigeria, aims to offer a culturally informed framework for the development of future housing policy.

Keywords
Culture, urban housing, housing policy, phenomenology

INTRODUCTION
Having lived in South Western Nigeria, with experience as an architect, and a history of developing urban housing, I have firsthand understanding as a designer and as an end user of surviving the troubles in a community submerged in housing crisis.

Fisher (2008) suggests that research has a personal relationship with researchers and it connects with our hopes. Moreover, in my own view, research should process the complexity of reality and in so doing expose and simplify the ideals of a subject in context into usable parts. Research can also be viewed as an apparatus used to better humanity, either by creating solutions or indicating ways that a problem can be minimised. This is practice-informed research, based on my practice as an Architect and familiarity with the present urban housing crisis situation in South Western Nigeria. Even though this study concentrates on Africa, the work will demonstrate a generalised context that is applicable to the lives affected by urban housing crisis all over the world.

This study presents the argument that if housing provision must be orientated towards long time goals and solutions, then housing policy must consider carefully the cultural requirements of the eventual users. Furthermore, this work focuses on urban housing as strategic vehicle for investigating the evolution of ideas and different approaches to the informal processes involved in the issues relating to the general livability of a community.

This study proceeds to explore and understand the social, economic and other related context of the urban housing crisis. This investigation interacts with the formulation and implementation of concepts relating to urban housing and also seeks to redefine the role of stakeholders including the architects, planners, government and the end-users in the urban housing development.

This work discusses housing as a fundamental human need. This discussion establishes the deterioration of urban housing over the years, the basic difficulties that connect the urban housing crisis to our everyday life and also implies the significance of housing as a nexus to a fundamental human existence.

Debates continue over the extent and composition of the urban housing problem. The problems that are associated with the urban housing crisis in Nigeria and in developing countries are fundamentally interwoven. This study presents the urban housing problem as a matrix which is a pattern formed by the contiguous nature of the urban housing crisis. This matrix constitutes a set of misunderstandings and lack of comprehension of the main themes connected to urban housing in relation to the context of the society.

This work intends to use phenomenology as the methodology and the method in order to connect with the lived experience of the Ajegunle community. This work draws from the extreme circumstances and the socio-spatial structure of the case study area and seeks to explore sustainability through cultural aspects of the built environment.

This paper attempts to highlight discoveries made by this research and also draw from the foundations made by the discussions in this work.

BACKGROUND AND CONTEXT
“Adequate housing is essential for human survival with dignity. Without a right to housing, many other basic human rights will be compromised including the right to family life and privacy, the right to freedom of movement, the right to assembly and association, the right to health and the right to development.” (Sidoti 1996, p.10)

In prosaic terms, adequate housing is a fundamental need for satisfactory levels of health and comfort, for
a family unit, and to allow access and contribution to the social and economic life of any community. Chaskalson, in the Constitutional Court of South Africa, judgment in 'Grootboom' case (2000), suggested that the right of access to adequate housing is entrenched in the core philosophy of African society, because of the value they place on human beings and the importance of the affordability of this basic human need. He also stressed that the basic necessities of life including housing must be provided to all for a 'society' based on human dignity, equality and freedom. The discussion of housing as a fundamental human need is extensive (see Martin and Fontana, 1990; United Nations Human Settlements Programme (UN-Habitat), 2005 and Wisner, Toulmin, and Chitiga, 2005). Essentially, housing can be described as a form of protection from the elements of denudation, a means through which to express individual and cultural values, and a way to produce, consume and accumulate capital. Nevertheless, in all parts of the world, but particularly in the third world-a group of nations frequently labelled 'underdeveloped' which contains almost two-thirds of the world’s population McGee (1971)-millions of people are ill housed or not housed at all.

Presently, a new report by the United Nations Human Settlements Programme suggests that already 3 billion people, or 50 percent of the world’s population live in urban areas and an estimated one-third of this population, that is 1 billion lives in slums. They also warned that the government face the possibility of a worsening urban housing crisis, if they cannot come up with the money to build 96,150 houses per day for an additional 2 billion city-dwellers by 2030 (UN-Habitat, 2008). These discussions show the deterioration of urban housing over the years, and the basic difficulties that connect the housing crisis to our everyday life, whilst also revealing the significance of housing as a nexus to a fundamental human existence.

Africa has the largest threat of mass ‘housing-lessness’ and not homelessness. Nigeria, a part of the sub-Saharan region of West Africa dominates, as the largest country demographically and geographically (Ogunshakin, 1992). The research sets out to explore the differences between the social, home, house, shelter and housing. It has been suggested that the home is more than mere shelter (Charlton 2004, p.4). This refers to social relations and other psychological concepts such as privacy, territoriality, safety and social relations within the physical structure that makes a home more than a house. The house has been defined as the three dimensional, top structure of a foundation layout (Charlton, 2004). There are further dimensions to the characteristics of housing than the physical structure. Housing includes the infrastructure that serves that house, the nature of the water sanitation, energy and access (roads and footpaths) that supplies the house and the integrated nature of the neighbourhood around the house (Zach and Charlton 2003, pp.45–50).

Debates continue over the extent and composition of the urban housing problem. Also included is the ingredients of the crisis, the appropriate roles of the individuals, stakeholders and government in addressing the urban housing crisis. While there are numerous studies on complexities of slums, (see Awotona, 1987; Ogunshakin and Olajiwola, 1992; Agbola, 1987; Ogu and Ogbuozobe, 2001), there are few studies dealing specifically with the cultural aspect of the problem. Onibokun (1973) stressed that while much has been written about the complicated nature of the slums, insufficient emphasis has been given to the systematic analysis of the social and cultural factors responsible for creating the slums and for their continuing existence.

In an urban situation the availability and accessibility of facilities, amenities such as schools, police stations, play lots and sporting facilities are important to the context of housing in a residential environment. Shelter is generally taken to be synonymous with housing, home, dwelling and a physical structure. Where housing means more than a structure on the site and it reflects the relationship to culture and the larger environmental location, land tenure, related community services and the capacity of the government are issues that are connected with housing. This argument developed in this work suggests that the urban housing crisis in Africa is a state of ‘housing-lessness’ and not homelessness, because the housing and the environment needed to
experience a state of ‘homeness’ do not even exist. This discourse will create a background for the study emphasising the existing crisis.

DEFINITION OF THE PROBLEM
The problems that are associated with the urban housing crisis in Nigeria and in developing countries are fundamentally interwoven. This matrix which is a pattern formed by the contiguous nature of the urban housing crisis, constitutes a set of misunderstandings and lack of comprehension of the main themes connected to urban housing in relation to the context of the society. The United Nations Human Settlements Programme submitted that many developing countries struggle to solve their housing problems (UN-Habitat, 2008). They also often find that there are lack of adequate knowledge and experiences in housing. They further stressed that “housing poverty is not only linked to economic poverty but also linked to knowledge poverty and skills poverty” (UN-Habitat 2008, p.1). This suggests that there is an absence of the education needed to sustain the urban housing in developing countries. These deficiencies provide a background for the physical manifestation and also the development of the existing urban housing crisis in Nigeria.

METHODOLOGY
Pepin (2004) stressed that “research methodology deals with the philosophical constructs which underpin the research process as well as the fluency and coherence of that process, guiding the manner in which the research is evaluated and expressed.” (p.110). This stimulates an argument raising the question of whether an African based thesis on core issues as regards urban housing crisis be based on a western philosophy.

In South Western Nigeria, housing is referred to as ‘ile’ which is the very core and a symbol of human existence and status in the community (Vlach, 1984). The Yoruba proverb “ile la wo ka to somo loruko”, which by translation suggests that, “after given birth to a child, you will look at your house before you give the baby a name”. In contrast the cultural meaning of this proverb is to appreciate your life experience which has a symbolic representation of a house before you name a child. This shows a strong ontological preference and a pregnant meaning which needs a systematic inquiry to understand. This partly informed the use of phenomenology as the methodology for this work.

Adeeko (1998) stressed that “Africa’s contribution, towards civilization is enormous, in fact Africans colonized reality”. He further stressed that a deconstructive analysis of the Yoruba proverbs shows that the material text and its use is more complex than what is admitted in clear communication. This foregoing suggests that even though the African philosophy is not coherent, they are embodiment of virtual knowledge that is passed from one generation to the other (Kamalu, 1990). He further argued that the African philosophy possesses a strong internal system that makes it culturally independent. This makes African philosophy worthy to be considered as regards fundamental issues that affects urban housing and also strengthens the guiding philosophical undertone of the project.

In order to offer a culturally informed framework for the development of future housing policy, the question that should research methodology express or support the research question, needs to be considered. Firstly the earlier works of Mabogunje (1969), Onibokun (1973), and Agboola (1997) on social implications of urbanization in developing countries, housing enablement and affordable housing for the urban poor has used different methodologies to support the crisis in their research. Most of their study areas are still in continuing deterioration. Oxford English Dictionary defined ‘support’ as ‘provide’, which may suggest that the methodologies used could have been for the sake of the fluency of the project. In contrast OED defined ‘express’ as ‘manifest.’ This work would attempt to interpret that methodology should manifest the interest that lies in the research question and more importantly the goal it would like to fulfill. As a result, this thesis through a discourse will separate African philosophy from phenomenology and aim to express the similarities by stressing the characteristics they both possess.

The complexities and composition of the urban housing situation, the nature of the case study area and the emerging issues from the problem, suggests that this study area is a ‘phenomena’. The Oxford English Dictionary defines phenomena as “a very
notable or a particular kind of fact or occurrence; a highly exceptional or unaccountable fact...a thing, person, or animal remarkable for some unusual quality; a prodigy.” The OED further defined ‘-ology’ as “the study...of what is indicated by the first element”. In generic terms, this presents phenomenology as an agglutination of ‘phenomena’ and ‘-ology’, phenomenology attempts to study phenomena. This study proceeds from this generic understanding and interpretation of the use of phenomenology to a more scientific use as both method (practice) and methodology (philosophy). Phenomenology aims at gaining a deeper understanding of the nature or meaning of our everyday experiences. Phenomenology asks for the very nature of a phenomenon, for that which makes a some-‘thing’ what it is – and without which it could not be what it is (Van Manen 1990). The study is not attempting to study phenomenology as a science, but uses phenomenology as approach to understand the meaning, structure and essence of the lived and living experiences of this phenomenon for the people of Ajegunle, Lagos Nigeria. Furthermore the work concentrates on the Husserlian school of thought of phenomenology. Moran (2002), stressed that “phenomenology is not just an abstract, metaphysical philosophy but it is an attempt to come in contact with the matters themselves with concrete living experience” (p.xiii). He further stressed that “phenomenological description of things is just as they are, in manner in which they appear” (p.xiii). “Phenomenology examines the structure of consciousness from within...as well as...complex conception of the nature of the historical and cultural elements of human experience” (p.xiv). This characteristic of phenomenology liberates the ontological attribute of the guiding African philosophy. It theorises the experience of the people in Ajegunle; the case study area. Also by means of extension, this radical approach to urban housing crisis in its own self is a contribution to the body of knowledge.

**CONCLUSION**

Culture has moved from the anthropological position of collection of pots and pans, bit and pieces that we all have to a complex whole which includes knowledge, belief, art, law, morals, customs and other capabilities and habits acquired by man as a member of a society (Tylor, 1871). This transformation of culture from something you have to something you do, suggests that today culture is not an equivalent to identity and tradition.

This study attempts to interpret culture as a resource which circulates globally, with ever increasing velocity (Yudice 2003). Furthermore, as a whole body of effort made by people in a sphere of thought to describe, justify the actions through which that people keeps itself in existence (Fanon 1968).

This cultural dimension towards urban housing crisis is a new perspective in minimising the effects of urban housing crisis in developing countries. Moreover, it has a practical function towards developing a framework, in order to inform housing policies. A lot of research has gone into the study of the complexities of the urban housing crisis. However, the experiences and culture of the people in the community has been neglected; as a possibility of the basis of understanding the crisis and also a route to a probable solution to minimise it.

The function of architecture in the built environment is one of the most important elements to the existence of a community. It is also evident that our communities are facing crisis that the existing intellectual claims struggles to tackle. However, the fusion or the installation of culture as relevant entity in the framework of knowledge guiding the built environment is the key to its sustainability. This influence of culture will reflect on the immense possibilities, untapped knowledge and potentials that can be generated in a whole body of effort made by people to survive in general liveability crisis.

**REFERENCES**


