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UNDERSTANDING MATERIAL CULTURE: EMOTIONS, MAKING AND VALUE, A PRODUCT DESIGNER'S PERSPECTIVE

Bhavin Vamanrao MALI, Pratul Chandra KALITA and Sukanya SHARMA
Indian Institute of Technology Guwahati, India

ABSTRACT
The concepts of emotion, making and value, while not new or alien to the researchers in design, have been looked at mainly from the point of view of end user of the design. This paper aims to discover and understand these concepts and their relationship with each other from the point of view of cultural anthropology and tries to compare and relate these two points of view to product design discipline. The understanding of the topic here is based on the review of papers published by various anthropology researchers and ethnographers on the work of studies in material culture and ethnographic studies as well as a design study conducted to experience the multidisciplinary approach towards product design. In the review the authors discover and discuss the social aspects of emotions, making and value and the way they are connected to each other socially, through material creations. Authors go on to visually illustrate their understanding of the hierarchy of human-object relation and the activities and the value associated with the five states of this relation. This understanding is discussed through the lens of emotional product design, design research and business research to expose some significant areas of knowledge creation for the increasingly unsustainable world. These opportunities of knowledge creation, at the intersection of cultural anthropology and product design, are discussed for the benefit of product design practice and product design education.

Keywords: Emotional design, making, shared emotions, object biography, multidisciplinary approach

1 INTRODUCTION
The interdisciplinary studies involving product design and cultural anthropology promise to provide a new and interesting perspective to the ongoing work in emotional product design. The concepts of emotions, making and value (of objects) have been studied, either independently or together, in various disciplines like anthropology, history, sociology, archaeology, psychology, design and business. So different aspects of emotions, making and value are unravelled by the researchers working in these disciplines. This paper tries to explore and understand some of these differences, with materiality as the central theme binding them with the discipline of product design.
Emotional product design, being part of product design discipline, aims to deliver physical object outcomes for meeting functional as well as emotional needs of a particular target group of users, especially the ones encountered while making choices for acquiring new products. Buying decisions mostly being individual, the current focus of emotional product designers and design and business researchers is mainly on studying the individual human-object emotional relations, in before-purchase scenarios.
In recent times, the focus of researchers in design, business and environment has been strongly shifting towards concepts of sustainability, sustainable behaviours and circularity etc. in a steadfast manner, with the hope to engender ways to minimise the environmental damage being caused by introduction of new objects to the world at a very alarming pace. However, the current approach of emotional design, directed towards individual human-object emotional relations in before purchase scenarios, is aimed at influencing higher and quicker buying decisions. This is contradictory to the higher common intention of working towards sustainable user behaviour, especially through emotional product design.
The approach in cultural anthropological studies on emotions, of considering the social aspects of human-object emotional relations over the entire time of life of the product, e.g., through object

biography [1], [2], [3] seems to be more aligned and promising if the designers and researchers wish to connect emotional design to sustainable behaviour. The design students being future stakeholders of design process, need to look at products beyond their physical and functional aspects, using multidisciplinary approach and tools like object biography etc. This paper aims to explore some of these multidisciplinary concepts and approaches through literature review of some papers published on the studies in material culture and look at the understanding derived from the point of view of product designer. A design study was also conducted to experience the understanding of these approaches.

2 ANTHROPOLOGICAL APPROACHES TO STUDIES IN EMOTIONS

While majority of the researchers studying emotions understand that "the emotions are both biological and cultural in nature" [4], there is a difference in approaches towards studying emotions, based on where the emotions are considered to be located with respect to the human being and how they are evoked. With the psychological approach it is considered that the emotions are very much located in the human brain, and it is the action of hormones that causes the bodily expressions of emotions in human beings. This biological approach points to the universality of the emotions and is widely used as applicable to all human beings sharing the modern anatomy.

However, the anthropological approach based on constructivism, considers the emotions to be located not only in the human bodies but also in the objects, places and the environment surrounding them. This approach points to the emotional experiences which are not universal but cultural and social in nature and has a great influence on the way the emotions are experienced and expressed.

Object biography [1], [2], [3] is a methodological tool to understand the relation between the object and people, by studying the life of an object from its birth (production) to death (state of no relation with people). Each object has a story of its own to tell and this study helps reveal the changing nature of relations the object has had with people and the way it has aged with its changing surroundings. Introducing object biography to product design students can potentially widen the horizon of their understanding of designed objects beyond 'before purchase scenarios' to post-purchase or 'during use' scenarios.

The approach of material culture is looked upon [5], [6], [7] as equivalent to studying historical text, as it provides the material proof of how human beings experience the world around them. The purpose of material culture study is also to understand the human behaviour and the various factors affecting the choices they make while interacting with physical objects, the factors like social forces, economic aspects, technological advancements etc. The material culture of a group, community or region in a particular time frame can reveal the shared emotional status of people in that context. Referring to the material culture of the in-patients' room in a psychiatric unit, [8] calls it the 'material culture of hope'. These patients, hoping for their stay in those rooms to be short and temporary, do not tend to decorate or elaborate the rooms with physical objects. The nature of objects in these rooms highlights the possibility of temporary occupancy for all these patients sharing the emotion of hope. Emotional communities and communities of enthusiasm are two more interesting concepts based on this idea of shared emotions, discussed in next section.

3 EMOTIONAL COMMUNITIES AND COMMUNITIES OF ENTHUSIASM

A ritual, e.g., the one at cemeteries, is an example of shared emotional experience where multiple people simultaneously go through similar emotional state. Cemetery is also an example of a place where the emotions are experienced and expressed in a social manner. Nilsson Stutz [9], in her study related to Mesolithic mortuary practices, claims that emotions give meaning and memorability to the rituals and in turn to the cemetery place, making the place "sticky" with emotions [10], [11]. The emotionality of spaces and objects helps bring and keep the people sharing those emotions together in a particular time frame, in the form of emotional communities [12], [13], a concept suggested by Rosenwein.

The concept of communities of enthusiasm can be understood as a group of people seeking activities and experiences for pleasure and not monetary benefits, like hobbies and hobbyists [14]. Pleasure or joy being an experience of emotion, it can be said that enthusiasm is an emotional relation. The communities of enthusiasm involve sharing and exchanging knowledge and skills [15] with each other, eventually strengthening the bonds within community. The emergence and accretion of these communities, especially the ones based on objects, ensure that those objects are collectively kept alive and kicking for a much longer time than expected. This is convincingly elaborated by DeLyser and Greenstein [14] with their example of restoration of the motorcycles by the Indian Motocycles company in America. The

community around these motorcycles kept them running, usable and valuable for many years after the company discontinued the production. The concept of enthusiasm also revolves around individual and shared activities and experiences involving relations with material things, hinting towards 'making' as one of the most significant themes for the communities of enthusiasm.

4 MAKING AND BECOMING OF AN OBJECT

The Anthropocene world has abundance of man-made material creations, eventually becoming a part of our environment, our life. Humans have been making objects even in stone age, and making as an activity is the most intimate and involving type of relation a person can have with material.

Making as a transformative interaction between object and person, exacts skills, knowledge and imagination and can reveal the relation between material and skills, thing and person [16]. Objects are either made individually as craftwork or made in large number by mass manufacturing, with the craft making considered as "founded in the art of care", the care referring to the one people exercise for other people [17].

While making generally refers to transforming materials into new objects, as a material interaction between people and object, making can also refer to activities like cleaning, maintaining, repairing, modifying, repurposing and restoring, as these activities do help the object 'become' something in its own social life. The emotional relation between people and objects during these various making activities, as understood by authors, is of varying nature (Figure 1) and so is the nature of value associated with making.

The human-object relation usually starts with the person acquiring the object e.g., through monetary exchange (buying) or as gift etc. and the relation is that of 'right to use' which the authors call 'dominance'. Over the time of use, the relation matures to that of coexistence and caring through simple cleaning, maintaining etc. to be called the relation of 'expectation', where it is expected that the relation will continue to exist. With passing of time, the objects age, undergo wear and tear and may lose some aesthetic or functional features over time. At this stage, there is relation of mutual 'hope' where both the person and the object hope to continue to enjoy the now meaningful emotional relation through activities like repair, modification and updating or replacing some parts. At this stage of hope, the relation also starts gaining some social and emotional value, by the virtue of interactions with multiple people and objects involved in these activities.

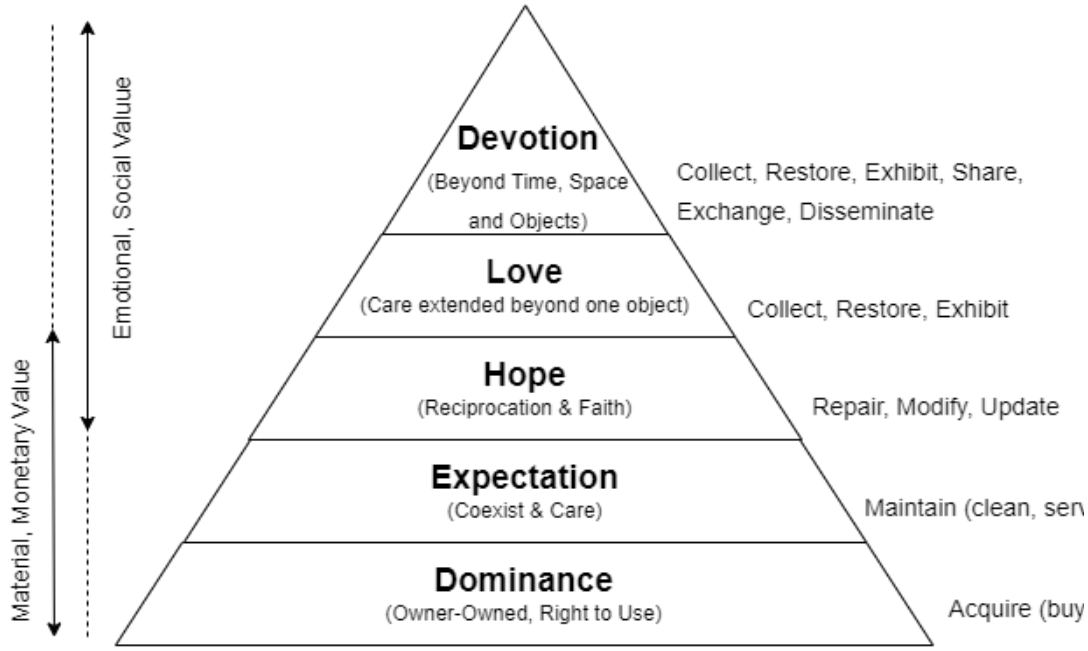

Figure 1. Hierarchy of human-object relation, as understood by authors

The phase of 'relation of hope' is very significant because the positive results of the activities of hope, can lead to people extending the faith in a particular product to other similar products, category, the brand and the industry in general. This can lead to people acquiring other products of the particular type or brand and hoping to have an equally fulfilling and pleasurable relation with them. The activities then

go beyond buying and repairing to seeking, collecting, restoring the dying ones and even exhibiting the prized possessions for others to see. This is the stage that can be called the relation of 'love' between people and objects. This stage has a much higher social and emotional value as compared to the monetary values of the objects and can be witnessed when people say they love the products of a particular brand or type and are excited to see others possessing those.
The highest state of the human-material relation is the one very appropriately termed as 'devotion' [14] and is very well elaborated in their ethnographic study of the restoration of three motorcycles discontinued by the Indian Motocycles company. What differentiates this relation of devotion from that of love is that the activities involved go beyond 'collect, restore and exhibit' to the ones involving sharing and exchanging of knowledge and skills with other people of same or different region, age or even generation, disseminating the experience of this relation to a much larger frame of time and space. Of the five states of human-object relation discussed above, devotion, being based on the enthusiasm driven making and dwelling within the emotional communities, is the most social type of material relation people can experience.
The hierarchy of human-object relation described by the authors above, if studied, elaborated or challenged by the researchers can result in the knowledge about various material and non-material factors influencing the transition of this relation and the associated value of making from one state to the higher one.

5 THE VALUE OF MAKING

The value of making can be transformative in nature [18], meaning the act of making can transform the materials into something of monetary value i.e., worthy of exchanging for money or it can transform the materials into something which also has some social or shared emotional value i.e., worthy of social praise or exhibition. While there could be many reasons why people make something, making as an activity is taken up by people for reasons of earning money, as a means of deriving pleasure or even as a learning endeavour, and the value of the outcome depends on these reasons to an extent. A person who has maintained his old car in 'like new' condition, not only earns some praise in his social circle, but his emotional relation with the car is materially evident in the aesthetics of the car, which if sold will command a higher monetary value too. Value of making is thus a direct reflection of the emotional relation between the person and the object, whether the value is material, monetary type or social and emotional type, as illustrated by authors in the previous section.

6 COOKWARE DESIGN STUDY

To demonstrate and experience the effect of using the new interdisciplinary approach on the outcome of product design process, a design study was conducted for commercializing a traditional Indian recipe through cookware design. In Figure 2 the design on left was created in the past following the conventional product design process which focused on coming up with an efficient and commercially scalable, automation friendly way of cooking sunga (bamboo) chicken. While these aspects were addressed to a good extent, the experience of authentic Indian cooking was lost. So, in the design study, a new sunga cookware was designed which focused on keeping the experience of authentic traditional Indian cooking intact without compromising the efficiency and commercial aspects. During the design process, aspects like shared emotions around the Indian way of cooking, the material culture of traditional Indian cooking were studied and considered to be manifested in the form of choices for material, colour and form of the cookware, the product architecture and the ritualization of the cookware usage itself. The resultant design, while functionally and technically modern, was perceived to be widely acceptable as an authentic Indian cookware designed for commercially cooking the traditional sunga (bamboo) chicken recipe, as compared to the older design lacking socio-emotional value.

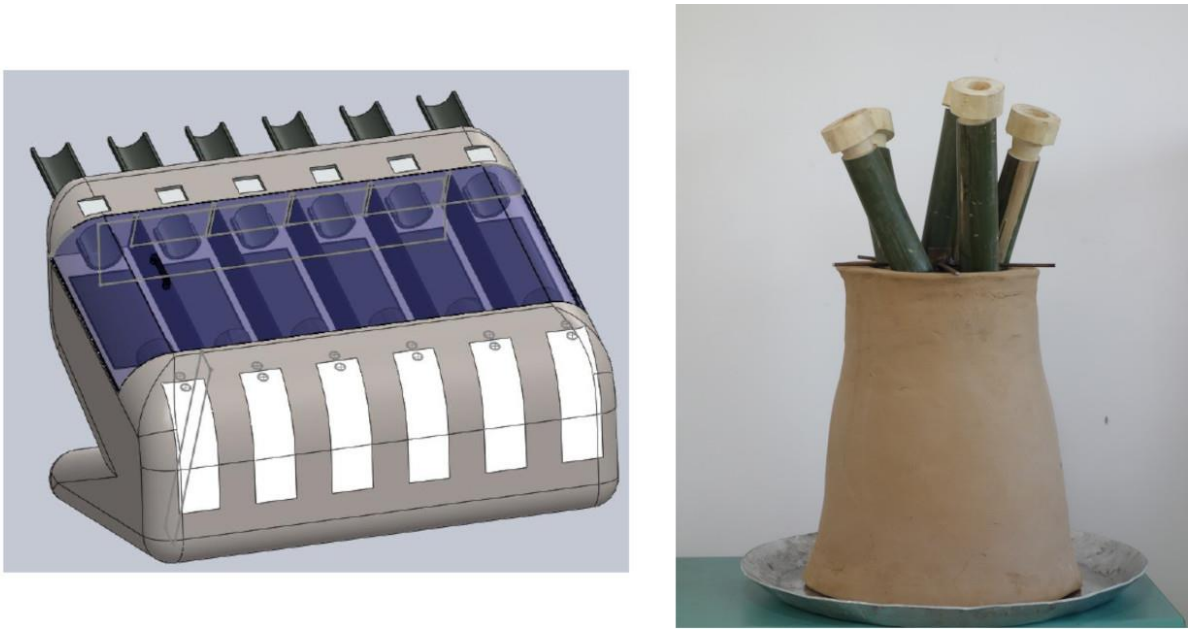

Figure 2. Left: old industrial design outcome for sunga (bamboo) cookware design
Right: new sunga cookware design considering shared emotional experiences of Indian cooking

7 RESEARCH CONTRIBUTION AND CONCLUSION

The current way of training design students in product design processes vastly focuses on end-user scenarios, mainly involving students studying individual human-object relations. Authors opine that the exposure to multidisciplinary approaches and concepts has the potential of making the emotional product design process and education richer in understanding and knowledge of the objects to be designed. Design students being the future stakeholders of design processes, need to be trained to look at products beyond their physical, functional and end-user oriented aspects, using multidisciplinary approaches and concepts. The concepts like shared emotions, emotional communities, communities of enthusiasm and tools like object biography etc. if introduced to product design students, can widen and deepen their understanding of objects and environment they are expected to design throughout their future career.

For instance, adopting the anthropological tool of 'object biography' can help designers explore and understand the inherent emotional relations between objects and people during various stages of life of objects. This new knowledge about the varying emotional relation with objects can create more and interesting opportunities of emotional design for product designers.

While emotional-product designers consider both functional and emotional aspects of a particular object to be designed, the identification and understanding of emotional communities in the contextually relevant place or timeframe can prove to be of their great help to engender the product designs which evoke shared emotional values and hence potentially get widely accepted and cherished. This was experienced and demonstrated during the sunga cookware design study described in this paper.

Communities of enthusiasm around objects ensure that those objects are kept alive for a longer period of time. A deeper understanding among design researchers and designers, of how certain activities (of making) and objects influence the emergence of enthusiasm and the communities around them, can prove to be very significant in developing knowledge, products and services to support more and newer communities of enthusiasms, hopefully leading to sustainable behaviours.

While a significant part of the contribution of this study comes in the form of the visual illustration of hierarchy of human-object relation, a deeper and elaborate study of the same by design and business researchers can result in the knowledge about various material and non-material factors influencing the transition of this relation and the associated value of making from one state to the higher one. This knowledge in turn can be used by designers and strategists to design and develop products, services and systems targeted at more long-lasting human-object relations in this otherwise throwaway society.

With the mass-produced machine-made products in the market, there is not much scope for integrating the social or shared emotional value in the process of making, except maybe during making of the designs themselves. However, if these products are designed to last long functionally and to be

emotionally and socially engaging throughout the post purchase scenarios, they can indeed enter the hope, love and devotion stages of relation and gain the social and emotional value of their own.
So, there certainly is great scope and potential in understanding more aspects of material culture and applying and integrating the same in design practice and design education.

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