



ON CULTURE-ORIENTED PRODUCT DESIGN: A STUDY TO TRANSFORM CULTURAL FEATURES TO DESIGN ELEMENTS

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Abstrak

Penulisan ini difokuskan kepada penyelidikan berasaskan amalan tentang cara mengubah ciri-ciri budaya menjadi elemen reka bentuk di bawah rangka reka bentuk berorientasikan budaya. Penyelidik memainkan peranan sebagai penjelajah untuk menjana reka bentuk produk berdasarkan model reka bentuk produk budaya. Untuk merealisasikan objektif penyelidikan, projek reka bentuk cenderamata ulang tahun ke 50 fakulti komunikasi Seni Chulalongkorn dipilih. Dalam tempoh tiga bulan, penyelidikan telah dijalankan dengan menggunakan model reka bentuk produk kebudayaan. Penyelidikan ini disusun di bawah tiga fasa, fasa 1 (Tahap pengenalan): peringkat penyelidikan ciri-ciri kebudayaan untuk menjadi sumber projek reka bentuk. Fasa 2 (Tahap terjemahan): peringkat penerjemahan ciri-ciri kebudayaan menjadi sumber reka bentuk untuk menyediakan projek reka bentuk. Tahap 3 (Tahap Pelaksanaan): tahap mengubah ciri-ciri kebudayaan menjadi elemen reka bentuk. Diharapkan kertas kerja ini akan memberikan pemahaman tentang pemahaman pelaksanaan proses reka bentuk kreatif khususnya untuk aktiviti reka bentuk berorientasikan budaya.

Kata kunci: Budaya, Reka Bentuk Berorientasikan Budaya, Proses Reka Bentuk, Reka Bentuk Komunikasi, Reka Bentuk Grafik, Reka Bentuk Logo

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Abstract

This paper based on a practice-based research on how to transform cultural features into design elements under the framework of culture-oriented design. The researcher plays a role as an explorer to generate a product design based on the cultural product design model. To realize the research objective, Chulalongkorn University's faculty of Communication Arts 50th anniversary souvenir design project was selected. In the period of three months, the research was conducted with the application of cultural product design model. The research was structured under three phrases, phrase 1 (Identification stage): the stage of researching cultural features to serve as a source of the design project. Phase 2 (Translation stage): the stage of translating cultural features into design resources for serving the design projects. Phase 3 (Implementation stage): the stage of transforming cultural features into design elements. It is hoped that this paper will provide insights into an understanding of creative design process implementation particularly for culture-oriented design activities.

Keywords: Culture, Culture-Oriented Design, Design Process, Communication Design, Graphic Design, Logo Design

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1.0 Introduction

1.1 Research Objectives

According to David Carlson and Brent Richards, 'Design and Culture' have always been closely interrelated, however in many instances design is flaunted as the true measure of culture, rather than belonging to part of a cultural context of the society. A design has become the embodiment of a larger process of creative 'culture-mongering' that has become a means to capture ideation, innovation, and enterprise and made to stand for cultural identity (David and Brent, 2011). Apparently, in the era of "Glocalization", for 'Design', culture plays a vital role in value-adding and creates the core of product value. The same is true for culture, in which design is the crucial force in enforcing 'cultural permaculture'.

Based on the research of Professor Rung-Tai Lin from National Taiwan University of Arts (2007), he stated, in this global market-local design era, connections between culture and design have become increasingly evident. Designing culture into products will become a design trend in the global market. Obviously, there is a need for a better understanding of cross-cultural communication not only for taking part in the global market but also for developing a local design (R. Lin, p48). As Thomas Heatherwick (2010) also mentioned, in the 21st century, a design has become the symbolic totem for showcasing culture (David and Brent, 2011). Therefore, there is a need for designers to develop an in-depth understanding of the relation and connection between design and culture under the context of interdisciplinary. As interdisciplinary studies become important for design in the 'Glocalization' context, the intersection of design and culture becomes a key issue leading to an in-depth study of "Culture-oriented Product Design".

Culture plays an important role in the field of design, and cross-cultural design will become one of a key point in design evaluation in the future (R. Lin, p46). Integrating culture features into products' design will become a design trend in the global market. For design, cultural value-adding creates the core of product value. The same is true for culture, in which design is the motivation for pushing cultural development forward (R. Lin, p46).

Undeniably, culture as a form of 'creative resources' is able to assist designers in catalyzing for innovative products design. Lee (2004), Globalization has made culture the most important asset to work with. As culture has become a critical issue, designers are no exception from this paradigm (Richie, Vesna and Anne 2007). To acknowledge global market-local design era, in recent years, many scholarly studies have been conducted to address and identify the relationship between culture and various aspects of design, such as the impact of culture on products and the impact of products over the culture, and how the integration of culture could be implemented in the product design process (Mohammad and Mariono, 2005, p5). In response to such design-culture phenomena, in this research study, the researcher aims at





investigating and interpreting how to transfer cultural features to design elements in designing “Culture-oriented Product Design” through the project-based approach in the design project of the Faculty of Communication Arts’ ‘Golden Jubilee’ souvenir design, through the application of ‘Cross-cultural Design Model” in realizing the Culture-Oriented Product Design studies.

According to Rung-Tai Lin (2007), “designing culture into products will become a design trend in the global market. Obviously, there is a need for a better understanding of cross-cultural communications not only for taking part in the global market but also for developing a local design. As cross-cultural issues become important for product design in the global economy, the intersection of design and culture becomes a key issue making both local design and the global market worthy of further in-depth study” (R. Lin, p48). This manifestation shows that there is a need for an in-depth study on “Culture-oriented Product Design” within a selected cultural context in response to global market-local design era.

Thailand is a nation of cultural diversity which blending of cultural influences from India, China as well as the West. This blend has allowed Thailand, over time, to gradually develop its own distinctive culture features. Thailand’s cultural uniqueness and distinction offer the high potential of application in the field of design, especially as designing local-cultural features into contemporary design elements appear to be significant for the global market, where products are losing their cultural identity due to globally similarities in products production. In recent years, the increasing emphasis on localized cultural development in Thailand already demonstrates an ambition to promote a Thai creativity in the global economic market. For example, the establishment of Thailand Creative & Design Center (TCDC) in 2004, and 14 small scales TCDCs nationwide and opened TCDC Chiang Mai in 2013 as a center for exchanging creative ideas and readying regional entrepreneurs to keep up with ever-changing global demand (TCDC, 2015).

In this global market-local design era, connections between culture and design have become increasingly evident (R. Lin, p46). The amalgamation of design and culture provide a framework for design and cultural permaculture. Therefore, the purpose of this research study is to investigate and interpreted how to transfer cultural features to design elements in designing “Culture-oriented Product Design” in contemporary Thai product design. Through the ‘project-based approach’, the Faculty of Communication Arts’ ‘Golden Jubilee’ product design is selected as a case study for this research study.

The outcome of this research will be served as (1) a source of information to provide a better understanding of the development and practice of “Culture-oriented Design”. (2) To study and obtain a better understanding of the method and model of “Cultural Product Design Model”. (3) To understand the role of the designer as culturalist in Glocalization context.





1.2 Research methodology - Qualitative approach

This research study is based on 'Qualitative' approach. Exploratory research (A Project-led and Problem-Based Study) with case study methodology (Faculty of Communication Arts' 'Golden Jubilee' Souvenir Design) will be applied in this research study.

Sources of this research constitute of two parts: Primary data and secondary data. The research activities will start with secondary data collection and review. The literature review will be conducted focuses on culture and design studies, culture-oriented design theory and model will be reviewed to serve as a theoretical framework for this research study. Source of secondary data will be obtained from library research and online resources. Upon the secondary data collection completed, the primary data collection will be taken place and on-field data collection (Design Process) will be conducted.

Data collection techniques for primary data collection will be based on the application of "Cultural Product Design Model". The model will be analyzed and utilized, with the expectation that the model will serve as the framework for the whole design process.

The benefit of the Research

Upon the completion of this research study, the outcome will be served as research document as (1) a source of information to provide a better understanding of the development and practice of culture-oriented design, (2) a source to provide better understanding of the co-relationship between culture and design and, (3) a source of information to understand the method and model of culture-oriented design in Thailand.

The audience of this research project will consist primarily of professionals and tertiary students from creative industries that concentrated on culture and visual communication. Other audiences may consist of cultural and communication scholars and specialist.

The scope of the Research:

This research study is based on 'Qualitative' approach. Exploratory research (A Project-led and Problem-Based Study) with case study methodology (Faculty of Communication Arts' 'Golden Jubilee' Souvenir Design) will be applied in this research study.

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1.3 Research discussion

In this research study, the following questions will serve as instruments in exploring the research outcome:

- To study and analyze the process of ‘Culture-oriented Product design’ methods and model
- How were cultural features designed into design?
- How to apply Cultural Product Design Model in designing Culture-oriented Product design?

2.0 A Review on Culture-oriented Product design

This chapter provides an overview of previous research focuses on design study with a concentration on Culture-oriented Product design. It introduces the framework for the case study that comprises the main focus of the research described in this research study.

It is important to set the context of the literature review work by providing: (1) a review of existing literature to support the study undertaken in this research study. (2) an indication of the scope of the work presented in this research study.

In short, the main purpose of the literature review work was to survey previous studies on ‘Culture-oriented Product design’. This was in order to scope out the key data collection requirements for this research study and it formed a significant part of this research.





2.1 Culture

The term “culture” is defined in diverse definitions under different academic disciplines and domains. Over the years, definitions of the term “culture” have been continually refining and redefined under a different context. With such complexity, “culture” is indeed a difficult concept to be unitarily defined. In 1952, Alfred Kroeber and Clyde Kluckhohn compiled a list of more than 200 different definitions of “culture” in their book, *Culture: A Critical Review of Concepts and Definitions* (Kroeber and Kluckhohn, 1952). According to Jesper Asp Sørensen (2000), in the last 10-15 years, the concept of culture has been debated, attacked and “deconstructed” by numerous scholars doing cultural analysis (Jesper. A. S, 2000, p2). Apparently, the definition of the term culture is context-dependent. Different definitions of “culture” reflect different theories for understanding or criteria for evaluating human activity (Rung, 2007).

Based on Jane Goodall (Primatologist, Ethologist, Anthropologist) in her 1986 publication: *The Chimpanzees of Gombe: Patterns of Behavior*, the term “culture”, originally from the Latin *colo*, *-ere*, with its root meaning “to cultivate”, generally refers to patterns of human activity and the symbolic structures that give such activity significance. From point of view of Raymond Williams (Cultural theorist and critic), he stated that the term “culture” was originally associated with the idea of the tending or cultivation of crops and animals - as, for example, in agriculture (Raymond 1976).

To place the term “culture” under the chronological studies, the definition and understanding of the term have evolved tremendously over the past two centuries. Based on (Paul et al. 2013), in 19th century, under the influence of the German writer, Herder, as well as the Romantic movement and the rise of nationalism, the term “culture” come to be associated with “the specific and variable cultures of different nations and peoples” - that is, it described the way of life of particular groups, peoples, nations or periods: a meaning which led to the word being more commonly used, as it often is today, in plural – “cultures” (Paul et al. 2013,p 5).

The 19th century English poet and cultural critic, Matthew Arnold stated “culture” as a state of intellectual refinement associated with the arts, philosophy, and learning”. In late half of the 19th century, following Mathew Arnold’s famous book, *Culture, and Anarchy*, the word “culture”, acquired a more restrictive meaning in English - referring now to a state of intellectual refinement associated with the arts, philosophy, and learning. This meaning persists in the present day, when “culture” is used to refer to the “high arts”, as compared with “popular” culture (what ordinary folk, the relatively unsophisticated masses, do) or “mass” culture (associated with the mass media and mass consumption) (Paul et al. 2013,p 5).





In the 20th century, the term “culture” is associated with the rise of the human and social sciences. This definition emphasizes the relation of culture to meaning. Raymond Williams (1961) publication: *The Long Revolution* provides a social definition of culture, “in which culture is a description of a particular way of life which expresses certain meanings and values not only in art and learning but also in institutions and ordinary behavior. The analysis of culture, from such a definition, is the clarification of the meanings and values implicit and explicit in particular way of life, a particular “culture”. (Raymond Williams, 1961, p. 57). Based on this definition, Culture and society are viewed as inextricably interwoven entities, or they are separate but related spheres (the connections between which are not automatic but have to be studied concretely in each instance) (Paul et al. 2013, p 5).

The term ‘culture’ in a broad sense could be scope as the way an entire society lives and is organized. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO) 2002, culture is describes as “...the set of distinctive spiritual, material, intellectual and emotional features of society or a social group, and that it encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions, and beliefs.” In addition, culture has explicit, observable acts such as the manner with which people greet each other; and implicit characteristics/rules such as bargaining standards that are not so clearly observed (UNESCO, 2002). Culture as an entire society lives and is organized have provides a ground for scholars approach to culture as a society’s “way of life” (Griswold 2012; Long 1997). Everything that related to what people have, how people think, and does as members of their society could be cultural studies depending upon the context. In short, the understanding of the term ‘culture’ is contextually specific.

Culture influences the process of human development in every way imaginable. As a social system and a society’s “way of life”, culture consist of multi-layers, (Richie, Vesna and Anne 2007) concluded that: (Stephan, 2004) suggests two layers of culture (visible and invisible), Schein (1999) and Lee (2004) proposes three levels of culture (basic assumptions, values and artifacts), Hampden-Turner and Trompenaars (1997) and Spencer-Oatey (2000) advocate four layers of culture: (1) basic assumptions and values (2) beliefs, attitudes and conventions (3) systems and institutions (4) artifacts, products, rituals and behavior.

Based on Chris Barker, the domain of cultural studies can be understood as an interdisciplinary and post-disciplinary field (Chris Barker 2011). Stuart Hall (1997), also proposed that cultural studies is a discursive formation, that is, ‘a cluster (or formation) of ideas, images, and practices, which provide ways of talking about, forms of knowledge and conduct associated with, a particular topic, social activity or institutional site in society’ (Hall, 1997a: 6). All contributors to the field of cultural studies have proposed their distinctive definition and interpretation to the term ‘culture’. According to Jesper Asp Sørensen (2000), one of the main reasons for ‘culture’s’





intangibility should be sought after in the very meaning of 'definition'. As most scholars agree, the solution to a more confined notion lies in drawing up the boundaries of the term and thereby the concept it denotes (cf. definition= demarcation) (Jesper. A. S, 2000, p2).

As the different definitions of "culture" reflect different theories for understanding or criteria for evaluating human activity (R. Lin, 2007). To study 'Culture-oriented product design' under the context of contemporary Thai product design, the researcher employed a definition of "culture" as "a particular and distinctive way (beliefs, customs, arts and etc.) of life of a specific social group or period". This working definition provides and demarcated a conceptual framework to study Thailand's 'Culture-oriented product design' development within the scope of contemporary design practices.

2.2 Design

According to John A. Walker (1989) in Design History and the History of Design, the term 'Design' originally derived from the word "Disegno" (Italian), which mean drawing. During the Italian Renaissance, the term "Disegno" was often associated or used as a way of planning paintings. In general understanding, during the Renaissance period, the term "Disegno" is served as a set of instructions for helpers.

In a contemporary design context, the term 'Design' has different connotations in different fields or design disciplines. In fact, 'Design is everywhere' - and that is why looking for a definition may not help to grasp and understand what it is. The single word 'Design' encompasses an awful lot, and that is why the understandable search for a single definition leads to lengthy debate, to say the least. There are broad definitions and specific ones - both have drawbacks. Either they are too general to be meaningful or they exclude too much (UK Design Council, 2004).

Hallvard Trætteberg (2002) suggested the term 'Design' can be thought of as the transformation of a problem description into a description of an artifact. This involves pin-pointing, detailing and formulating the problem, identifying which properties of the artifact that will address particular parts of the problem, and be handling conflicting requirements. In general, 'Design' can be defined as (1) A specification of an object, manifested by an agent, intended to accomplish goals, in a particular environment, using a set of primitive components, satisfying a set of requirements, subject to constraints; (verb, transitive) to create a design, in an environment (where the designer operates) (Ralph, P. and Wand, Y., 2009). (2) A roadmap or a strategic approach for someone to achieve a unique expectation. It defines the specifications, plans, parameters, costs, activities, processes and how and what to do within legal, political, social, environmental, safety and economic constraints in achieving that objective (Don Kumaragamage, Y., 2011).





Brinkkemper, S. (1996) stated that the term 'Design' refers to the designing process often necessitates considering the aesthetic, functional, economic and sociopolitical dimensions of both the design object and design process. It may involve considerable research, thought, modeling, interactive adjustment, and re-design. Meanwhile, diverse kinds of objects may be designed, including clothing, graphical user interfaces, skyscrapers, corporate identities, business processes and even methods of designing (Brinkkemper S., 1996).

Design includes two key components, (1) A problem (2) A plan to address the problem. Therefore, the better is the identified problem the higher will be the possibility that the planned solution will solve it. In this sense, the plan is the recipe, the formula, the list of ingredients and the right proportion for each of them, to solve the problem (Morris, R., 2009). In this sense, designer plays a role in identifying a problem(s) and work out a creative strategy with key stakeholders in providing a solution(s).

Basically 'Design' involves finding solutions that fit the user, task, and context of use. (Usability Body of Knowledge, 2012). By and large, 'Design' can be seen as: (1) A discipline that explores the dialogue between products, people, and contexts. (2) A process that defines a solution to help people achieve their goals. (3) An artifact produced as the result of solution definition (Usability Body of Knowledge, 2012). In short, 'Design' in a broad sense has a 'functional' role to play. It serves the ideology of design under the context of 'Form follows Function'. According to UK Design Council (2004), 'Design' could be viewed as the following:

2.3 Design as the process of 'Translation'

Design could be viewed as an activity that translates an idea into a blueprint for something useful, whether it's a car, a building, a graphic, a service or a process (UK Design Council, 2004).

Design and the user -_Good design begins with the needs of the user. No design, no matter how beautiful and ingenious is any good if it does not fulfill a user need (UK Design Council, 2004).

Design and creativity -_A design does not have to be new, different or impressive to be successful in the marketplace, as long as it is fulfilling a need, but design methods do lead to innovative products and services (UK Design Council, 2004).

Design and business -_Designers, unlike artists, cannot simply follow their creative impulses. They work in a commercial environment, which means there is a huge number of considerations that come to bear on the design process (UK Design Council, 2004).





Design and public services - In the UK for instance, billions are poured into public services every year but, despite the UK being home to a huge variety of top design talent, our best designers are rarely involved in public sector work (UK Design Council, 2004).

As mentioned above, there are countless definitions of design and design has different connotations in different fields or design disciplines. Therefore, to set a direction for the paper, the term 'Design' in the context of this research study is mainly defined as 'the activity of planning the creation of product design with the purpose of solving a problem'. Meanwhile, the discussion of 'Design' in this research study is contextually specific to product design which scopes under the 'Culture-oriented Product Design'.

2.4 Product Design

According to V. Ryan (2007), "Product Design" involves a broad approach to the designing and making of innovative/new products. Morris. R (2009) speaks of "Product Design" as it is essentially the efficient and effective generation and development of ideas through a process that leads to new products. (Robert Q. Riley Enterprises, LLC., 2013) further defined Product design is the process of creating a new product to be sold by a business to its customers. Eric Eriksson (2014) elaborates on "Product Design" as "Product Design is the whole process". He also stated that Product Designer as someone that makes solution look presentable, Product Designer is there to help in identifying, investigate, and validate the problem, and ultimately craft, design, test, and ship the solution.

Eric Eriksson (2014) also concluded that present a Product Designer with a solution, and they will tell you what is wrong with it and, present Product Designer with a problem, they will go to analytics and gather existing user data. In short, Product Designer will design the solution, until the problem changes. This is the nature of their profession.

L Bruce Archer (1974) stated that most product designs fall under one of two categories: (1) Demand-pull innovation or (2) Invention-push innovation. (1). Demand-pull innovation takes place when there is an opportunity in the market to be explored by the design of a product. This product design attempts to solve a design problem. The design solution may be the development of a new product or developing a product that is already on the market, such as developing an existing invention for another purpose (L Bruce Archer, 1974. p87). (2) Invention-push innovation takes place when there is an advancement in intelligence. This can occur through research or it can occur when the product designer comes up with a new product design idea (L Bruce Archer, 1974. p87).





Donald A. Norman (2002) speaks of 'Product Design' as challenging tasks. All stakeholders involved all demand something different from the product designer and from the design process (Norman, D. 2002). As stakeholders' demands vary from one another, it is the product designer's job to incorporate those demands into their design. Donald A. Norman (2002) listed these challenges as follows:

The manufacturer is concerned with production cost; in the end, the manufacturer wants an economically produced product (Norman, D. 2002 p28). The purchaser looks at price, appearance, and prestige value (Norman, D. 2002 p28). The end user is concerned with usability and functionality of the final product (Norman, D. 2002 p28). The maintenance and repair department focuses on how well the final product can be maintained: is the product easily reassembled, disassembled, diagnosed, and serviced? (Norman, D. 2002 p28).

By and large, product design involved complex processes and product designers need to consider all of the factors and details throughout the design process. Under a systematic and structural approach, product designers conceptualize, evaluate, and implement ideas, turning intangible creative resources into tangible inventions and products.

2.5 Product Design Process

As each designer has he/her distinctive ways and approaches in their professional discipline and practices, it leads to a formation of various design processes. For "Product Design" process, there are several design process focuses on different aspects. Don Koberg and Jim Bagnell (1991), proposed the product design process as "The Seven Universal Stages of Creative Problem-Solving," This framework provides a structure for designers formulate their product development process. The process focuses on figuring out what is required, brainstorming possible ideas, creating mock prototypes, and then generating the product. This process is usually completed by a group of professionals, i.e. designers, field experts (e.g. prospective users), engineers, etc.

Under "The Seven Universal Stages of Creative Problem-Solving," the design process can be divided into three main sessions:

(1) Analysis

Accept Situation: Designers decide on committing to the project and finding a solution to the problem. They pool their resources into figuring out how to solve the task most efficiently (Koberg and Jim Bagnell, 1991).





Analyze: In this stage, the team gathers general and specific materials, which will help to figure out how their problem might be solved. This can range from statistics, questionnaires, and articles, among many other sources (Koberg and Jim Bagnell, 1991).

(2) Concept

Define: This is where the key issue of the matter is defined. The conditions of the problem become objectives, and restraints on the situation become the parameters within which the new design must be constructed (Koberg and Jim Bagnell, 1991).

(3) Synthesis

Ideate: The designers here brainstorm different ideas, solutions for their design problem. The ideal brainstorming session does not involve any bias or judgment but instead builds on original ideas (Koberg and Jim Bagnell, 1991).

Select: The designers have narrowed down their ideas to a select few, which can be guaranteed successes and from there they can outline their plan to make the product (Koberg and Jim Bagnell, 1991).

Implement: This is where the prototypes are built, the plan outlined in the previous step is realized and the product starts to become an actual object (Koberg and Jim Bagnell, 1991).

Evaluate: The product is tested, and from there, improvements are made. Although this is the last stage, it does not mean that the process is over. The finished prototype may not work as well as hoped so new ideas need to be brainstormed (Koberg and Jim Bagnell, 1991).

In a broad sense, “The Seven Universal Stages of Creative Problem-Solving” covering the development of product design process. Over the years, there is various product design process models proposed by design professionals and scholars. These models all proposed more and less the similar structures as viewing the design process in four main stages (1) Problems identification stage (2) Solutions/Strategies proposed stage (3) Solutions/Strategies implementation stage (4) Solutions/Strategies reviewed stage.

These four main stages have been basically working as ‘universal framework’ for design professionals from various disciplines.





2.6 Design and Culture

In the 21st century, every country in the world knows that: competition and contest between countries are not only in the aspect of hard power such as politics, economy, military but also in the soft power such as culture. In the fast pace of globalization of this society, culture has been becoming an important source of national cohesion and creativity (Zuozuo 2011). From a Marco perspective, culture as a source of creative resources has a significant role to play in the era of globalization. Under the conceptual framework of 'Creative Industries', cultural resources are drivers for the planning and development of 'Creative Economy'. UNCTED (2013) reported that World trade of creative goods and services totaled a record of US\$ 624 billion in 2011 and more than doubled from 2002 to 2011. At the same time, creativity and culture also have a significant non-monetary value that contributes to inclusive social development, to dialogue and understanding between peoples (UNCTED, 2013). Creative industries and Creative Economy are undoubtedly are a very hot topic at the dawn of the 21st century. As Peter Drucker (2000) has stated, the success and failure of each country will be decided by the cultural industries in the 21st century. The final battleground is the cultural industry.

According to international organizations such as UNESCO and the General Agreement on Tariffs and Trade (GATT), cultural industries (also known as "creative industries") combine the creation, production, and distribution of goods and services that are cultural in nature and usually protected by intellectual property rights (Culture Action Europe 2013). By and large, the notion of cultural or creative industries generally includes the production/outputs (products and services) based on human creativity and innovation. Under the framework of cultural or creative industries, human creativity and 'innovative' is transformed into an economic resource'. The concept of 'Creative economy' derived from the Creative Industries. Based on John Howkins's 'Creative Economy' framework, creative economy comprises of advertising, architecture, art, crafts, design, fashion, film, music, performing arts, publishing, R&D, software, toys and games, TV and radio and video games (Howkins 2001, pp.88-117). Although there are various frameworks on 'Creative Economy' structured by different policy makers from different countries, most of the components structured under creative economy are related to the production of goods and services based on human creativity.

Based on Chris Barker, the domain of cultural studies can be understood as an interdisciplinary and post-disciplinary field (Chris Barker 2011). Although the design has different connotations in different fields, as a one of the major discipline in the creative economy, a design has been studying 'interdisciplinary' by scholars from the domain of diverse professional studies. (Moalosi et al. 2005a), the relationship between design and culture has taken many twists and turns throughout the last centuries, as a design is seen both as a mirror and an agent of change.





Design changes culture and at the same time is shaped by it (Röse 2004). It is a culture that gives products meaning and provides the rituals within which artifacts are used and the values that are often reflected in their form and function (Press and Cooper 2003).

Following the end of World War II, the decolonization movement provides the debate focus on the 'cultural rights'. Designers should focus on cultural rights (Buchanan 2001). This challenges the role of the designer as a 'culturist' and the significance of design as an agent of change. (Moalosi et al. 2005), stated, in product design, the goal of cultural respect can be achieved by incorporating the historical and aesthetic values of users. In short, what and how cultural norms and values can be integrated into product design have become challenges for designers. It is underscored that designers need to recognize that people are cultural beings and the process of integrating cultural factors in their practice should be emphasized. (Richie, Vesna and Anne 2007). (Moalosi et al. 2005a) also concluded that the use of a society's cultural factors in design not only makes technologies more appropriate for their social context but also makes better use of culture itself as a resource for innovation.

In the era of globalization, the impacts of globalization permeate all facets of society. Lee (2004) observes that globalization has made culture the most important asset to work with. As culture has become a critical issue, designers are no exception from this paradigm. After all, it is a designer's ultimate role that shapes users everyday culture by creating new products that respond to that culture (Richie, Vesna and Anne 2007).

According to Mohammad Razzaghi and Mariono Ramirez Jr (2005), many research studies have been made to address and identify the relationship between culture and various aspects of design, such as the impact of culture on products and the impact of products over the culture, and how the integration of culture could be implemented in the product design process. These research studies have also been undertaken in varies design domains for an examination of cultural impacts in diverse design disciplines (Mohammad and Mariono, 2005, p5).

Mohammad Razzaghi and Mariono Ramirez Jr (2005) also found that culturally oriented products create stronger bonds with users. If the product user finds product culturally closer and meaningful to them, the outcomes will be the following:

- Culture can sell.
- Culture can be a means for users' satisfaction.
- Culture can be a reflector of users' identity.
- Culture can be a resource for design innovation and inspiration.





- Culture can play a role in the intuitive use of products.
- Culture can be balancing force versus globalization.
- Culture can set trends and fashions.

For all the above reasons, the integration of culture into products can be viewed as being very advantages and beneficial to the industrial design discipline and to product users from many angles (Mohammad and Mariono, 2005, p5).

3.0 Culture Oriented Design

According to David Carlson and Brent Richards, 'Design and Culture' have always been closely interrelated, but in many instances design is flaunted as the true measure of culture, rather than belonging to part of a cultural context of the society. A design has become the embodiment of a larger process of creative 'culture-mongering' that has become a means to capture ideation, innovation, and enterprise and made to stand for cultural identity (David and Brent, 2011). Apparently, in the era of "Glocalization", for design, culture plays a vital role in value-adding and creates the core of product value. The same is true for culture, in which design is the crucial force in enforcing 'cultural permaculture'.

Based on the research of the National Taiwan University of Arts by Professor Rung-Tai Lin, he stated, "In this global market-local design era, connections between culture and design have become increasingly evident. Designing culture into products will become a design trend in the global market" (R. Lin, 2007). As Thomas Heatherwick also mentioned, in the 21st century, a design has become the symbolic totem for showcasing culture (David and Brent, 2011). Therefore, there is a need for designers to develop an in-depth understanding of the relation and connection between design and culture under the interdisciplinary context. As interdisciplinary studies become important for design in the 'Glocalization' context, the intersection of design and culture becomes a key issue leading to an in-depth study of "Culture-oriented Design".

Professor Rung-Tai Lin (2007) also stated, "by using local features in design as a strategy to create product identity in the global market, designers have noted the importance of associating products with cultural features in order to enhance product value. At this point, the field of Industrial Design has played an important role in this process of embedding cultural elements into products and in increasing their cultural value in the competitive global product market. Therefore, we could say that designing a product with local features in order to emphasize its cultural value has become a critical issue in the design process (Wu, Hsu, & Lin, 2004; R. Lin., 2005).





The use of a society's cultural factors in design not only makes technologies more appropriate for their social context but makes better use of culture itself as a resource for innovation (Moalosi et al. 2005a). As culture plays an important role in the field of design, and culture-oriented design will become one of a key point in design evaluation in the future (R. Lin, 2007). Apparently, designing culture into products will become a design trend in the global market. Design can now adopt a central role as the creative nutrient for a form of 'cultural permaculture' (David and Brent, 2011).

Under the context of "Culture-oriented design", designers are given opportunities to transform cultural features into design elements, which fit into the concept of cultural permaculture'. Central to this new concept would be to develop an approach to Culture that maintains an authenticity and meaningful use of identity, through a broad-based and holistic approach (David and Brent, 2011). Designers as Culturists are given the challenge to employ or to combine the knowledge of indigenous culture into contemporary design language for the sustainable of 'cultural permaculture'.

In this global market-local design era, connections between culture and design have become increasingly evident (R. Lin, 2007). From the design perspective, K. Lee (2004) suggested a framework with multiple-layers, including layers representing artifacts, values, and basic assumptions. These layers are identified by key design attributes, including attributes that reflect function, aesthetics, and symbols. Leong and Clark (2003) developed a framework for studying cultural objects that are distinguished by three special levels: the outer "tangible" level, the mid "behavioral" level, and the inner "intangible" level (R. Lin, 2007).

3.1 Three Cultural Levels

According to R. Lin (2007), based on the studies of Moalosi, Popovic, & Hudson (2004) Wu, Hsu, & Lin (2004); K. Lee (2004); Leong & Clark (2003), their research provided a framework for studying cultural objects, as presented in Figure 1.



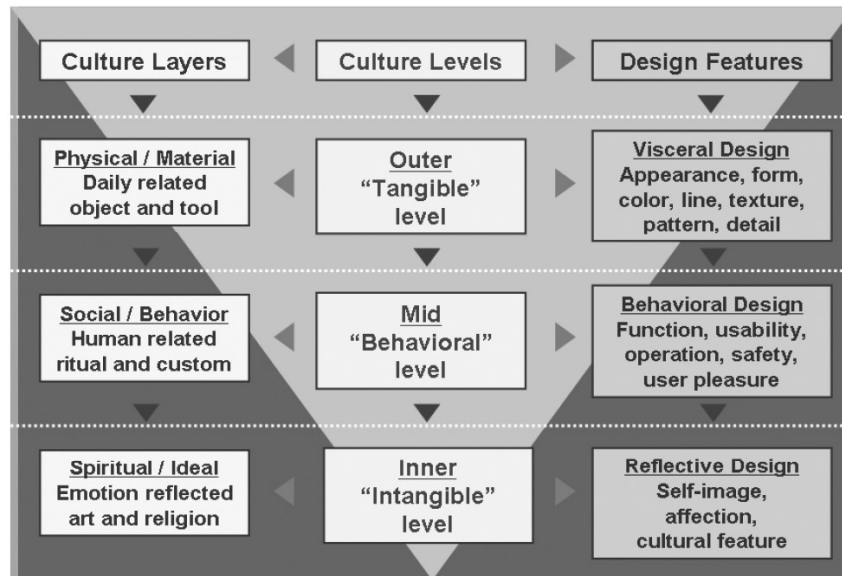


Figure 1: Three layers and levels of cultural objects and design features.

In this framework, culture has been classified into three layers (R. Lin, 2007):

- (1) Physical or material culture - including food, garments, and transportation-related objects,
- (2) Social or behavioral culture - including human relationships and social organization, and
- (3) spiritual or ideal culture - including art and religion.

(R. Lin, 2007), Three layers of culture can be fitted into Leong's three cultural levels. Where cultural objects can be incorporated into a cultural design, three design features can be identified, as follows:

- (1) The inner level, containing special content such as stories, emotions, and cultural features,
- (2) The mid-level, dealing with function, operational concerns, usability, and safety, and
- (3) The outer level, dealing with color, texture, form, decoration, surface pattern, line quality, and detail.





3.2 Cultural Product Design Model

According to R. Lin (2007), cultural product design (Figure 2) is a process of rethinking or reviewing cultural features and then redefining them in order to design a new product that can fit into society and can satisfy consumers culturally and aesthetically (Ho et al., 1996). Using cultural features to add extra value to products can not only benefit the economic growth of a society but also can promote the uniqueness of a local culture in the global market (R. Lin, p47).

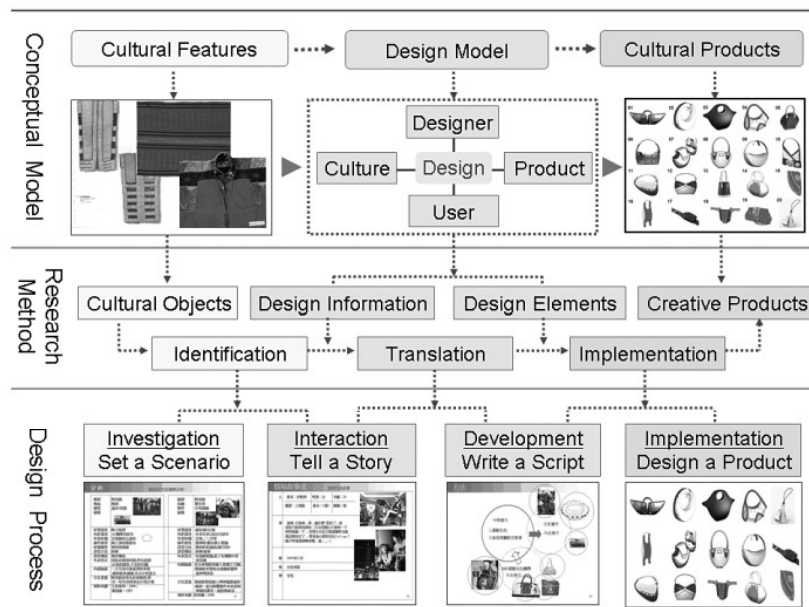


Figure 2: Cultural product design model.





3.3 The Three Phases of the Cultural Design Model

R. Lin (2007), proposed the cultural product design model, which consists of three main phases: (1) The conceptual model, (2) The research method, (3) The design process.

The conceptual model: The conceptual model phase emphasis on the process of extracting cultural features from a cultural object and transfer these features to a design model. Creating the design model consists of three steps, as shown in the research method phase: The research method: The research method phase focuses on (i) identification stage (extracting cultural features from an original cultural object), (ii) translation stage (transforming these features into design information and design elements) (iii) implementation stage (designing the cultural product) (R. Lin, p47).

3.4 The Four Steps of the Cultural Design Process

R. Lin (2007), suggested that based on the cultural product design model, the cultural product is designed using scenario and story-telling approaches. In a practical design process, there are four steps of design a cultural product, (1) Investigation (setting a scenario), (2) Interaction (telling a story), (3) Development (writing a script), and (4) Implementation (designing a product) (R. Lin, p48).

(1) Investigation/setting a scenario: To find the key cultural features in the original cultural object and to set a scenario that fits the three levels: the outer tangible level, the mid behavioral level, and the inner intangible level. Based on the cultural features, the scenario should take into consideration the overall environment in which the object is used, including such things as economic issues, social culture, and technological applications. In this step, the designer seeks to analyze the cultural features of the object in order to determine the key cultural features that can be applied to represent the product (R. Lin, p48).

(2) Interaction/telling a story: To focus on user-based observation to explore the social-cultural environment in order to define a product that has cultural meaning and style derived from the original cultural object. Therefore, some interactions should be explored in this step, including the interaction between culture and technology, the dialogue between users and designers, and the understanding of the user's needs and cultural environment. According to these interactions, a user-centered approach based on story-telling is developed to describe the user's needs and the features of the product (R. Lin, p48).

Development/writing a script: To develop an idea sketch in text and pictograph form based on the developed scenario and story. During this step, the scenario and story might require





modification for the sake of transforming the cultural meaning into a logically correct cultural product. This step provides a means to confirm or clarify the reason why a consumer needs the product and how to design the product to fulfill the user's needs (R. Lin, p48).

Implementation/designing a product: To deals with the previously identified cultural features and the context of the cultural product. At this point, all cultural features should be listed in a matrix table, as a way to help the designer check the cultural features being applied in the design process. In addition, the designer needs to evaluate the features, meaning, and appropriateness of the product. The designer may make changes to the prototype based on the results of this evaluation and may implement the prototype and conduct further evaluations (R. Lin, p48).

4.0 Case study on Culture-oriented product design - Faculty of Communication Arts' 50th Anniversary Souvenir Design

The Faculty of Communication Arts, also known as Nitae -Chula came into existence on 7th July 1965, founded by Professor Bumrungsuk Sriha-ampai. In 50 years of existence, the Faculty of Communication Arts offers programs leading to the award of Bachelor of Arts (B.A), Master of Arts (MA) and Doctor of Philosophy (Ph.D.) degrees. By and large, the Faculty of Communication Arts plays a very significant role in the development of Communication Arts as an academic discipline and cultivation of media and communication professionals in Thailand.

In 2015, the Faculty of Communication Arts reached the Quinquagenary – a 50th anniversary (Golden Jubilee). In the preparation of the faculty's 50th-anniversary celebration, the Dean and board members have initialed series of projects and events that gear toward the Golden Jubilee celebration. One of the projects parked under the event is "Design Products" for the Faculty of Communication Arts. The design products will constitute items which designed memorial/souvenirs for faculty members and staffs, students, alumni as well as institutions and universities that well-connected to the Faculty of Communication Arts.

As the designer responsible for the 50th anniversary souvenir, the designer was requested to design a product to celebrate the Faculty of Communication Arts as well as a product with Thai cultural sensibility. To realize the project, the product which culture-oriented design was come into first consideration as the product design under the culture-oriented design domain contented strong cultural sensibility and served an objective of this research project as a project-based study on transforming cultural features to design elements. Cultural Product Design Model will be applied as the framework to realize the above stated objective.





In this research project, the designer employed the Cultural Product Design Model as a framework to explore the implementation of this model in the design project (Faculty of Communication Arts, 50th Anniversary Souvenir Design).

Under the framework of Culture-oriented Design, the Three Phases of the Cultural Design Model has been selected as a structural framework to investigate the Culture-oriented Design product. As R. Lin (2007) stated, Cultural Product Design Model, which consists of three main phases: (1) The conceptual model, (2) The research method, (3) The design process.

Faculty Communication Arts Scarf Design

In this research project, the designer employed the Cultural Product Design Model as a framework to explore the implementation of this model in the design project (Faculty of Communication Arts, 50th Anniversary Souvenir Design).

Under the framework of Culture-oriented Design, the Three Phases of the Cultural Design Model has been selected as a structural framework to investigate the Culture-oriented Design product. As R. Lin (2007) stated, Cultural Product Design Model, which consists of three main phases: (1) The conceptual model, (2) The research method, (3) The design process.

4.1 Cultural Product Design Model

The designer begins the design project with the application of the Cultural Product Design Model. Three phases of the process and development are listed as follow:

Cultural Product Design Model - Phrase 1 - Identification stage (extracting cultural features from an original cultural object)

The concept of the scarf fabric pattern derived from the faculty logo – a conch shell. In Buddhism, the conch is one of the Eight Auspicious Symbols representing the beautiful, deep, melodious, interpenetrating and pervasive sound of the Buddha-dharma (Buddha teaching), which awakens disciples from the deep slumber of ignorance and urges them to accomplish their own welfare and the welfare of others.

The conch shell as a form of communicating Buddha teaching and good virtue was selected as the logo of Faculty of Communication Arts since its establishment. The logo connoted the philosophy of the Faculty of Communication Arts in cultivating graduates with virtue qualities (Truth, Responsible and ethical) in media and communication industries.





1). Based on the faculty logo, the designer begins with an analysis of the possibilities to transform the distinctive forms of the logo and its characteristic (form) into the pattern design. Once the analysis process completed, the design was generated based on the conch contour.



Figure 3: Conch Shell Carved with the Buddha



Figure 4: Logo of Faculty of Communication Arts, Chulalongkorn University





Cultural Product Design Model - Phrase 2 - Translation stage (transforming these features into design information and design elements)

In this stage of the design process, the design involved the transforming the features of the faculty logo into design elements. The design of the conch shell's fabric pattern was created based on the faculty logo. It is a two-dimensional graphic pattern constructed from basic graphic elements.

The concept of the “Communication Arts which connecting the world” is also introduced in supporting the design concept. To visualize the concept, a design of the conch has been decorated with circular graphic elements (round shape graphics) which symbolized the energy of growing and sparking power of the faculty's determination in maintaining its high-quality teaching and research. The round-shape graphic as well symbolized the positive quality of a well-connected relationship between faculty and students.

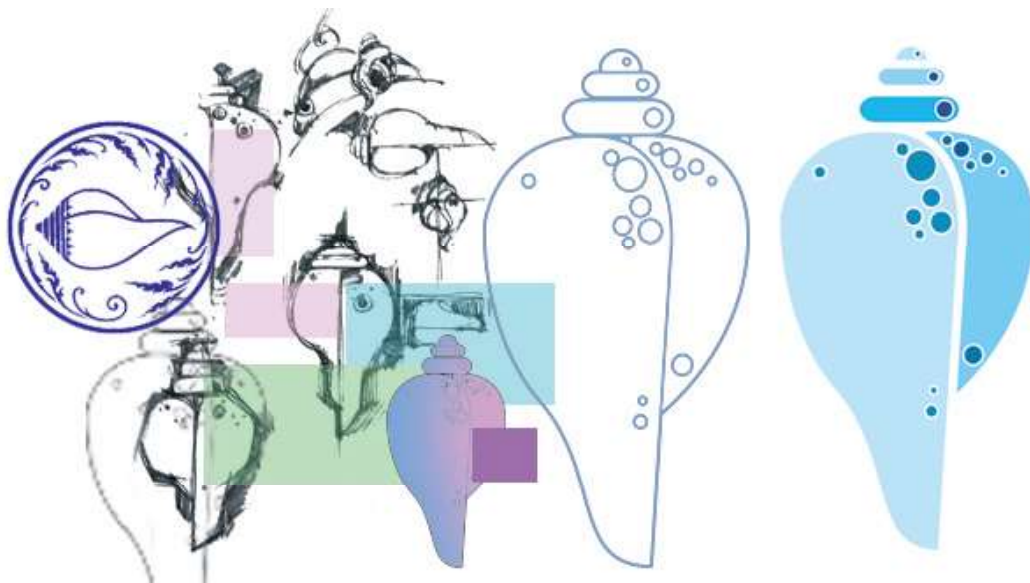


Figure 5: Analysis of the possibilities to transform the distinctive forms of the logo and its characteristic (outline) into the pattern design.





Cultural Product Design Model - Phrase 3 - Implementation stage (designing the cultural product)

The third stage of the design involved the consideration and selection of the colors. The main color dominated the design is Royal blue (as background color) which associated with the faculty's color. Color rendering and selection of the overall design is based on the pastel color mood which able to create a color-harmony's combination. Pastels pink, blue, green and purple are interwoven to create color rhythms.

Once the fabric pattern has been generated, the pattern has been composed and into series of a pattern for the scarf design. This process has been repeated to generate fabric pattern designs which based on the similar concept. The conch-shell graphics have been generated in several designs to explore the possibilities of varies visual-language of representation. Each design contented an interpretation of the above-mentioned concept.

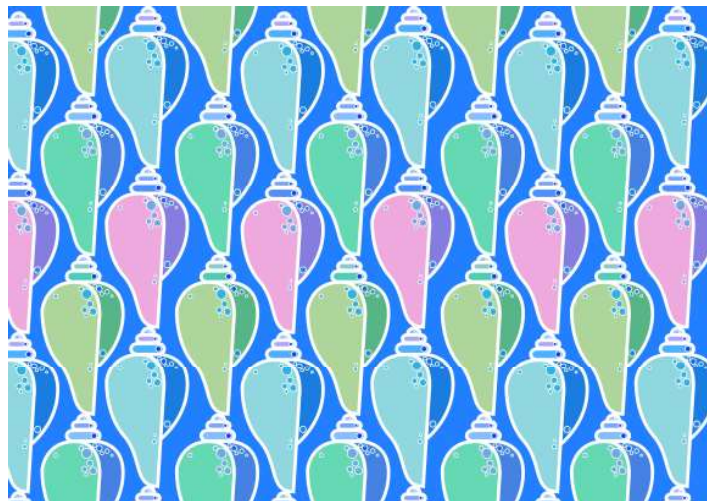


Figure 6: The fabric design for a scarf (Different colors and design arrangement)



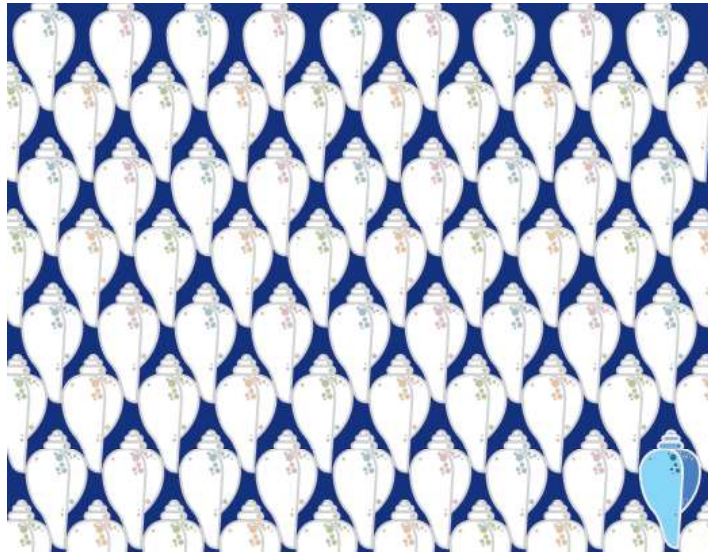


Figure 7: Explore the possibilities of varies visual-language of representation.

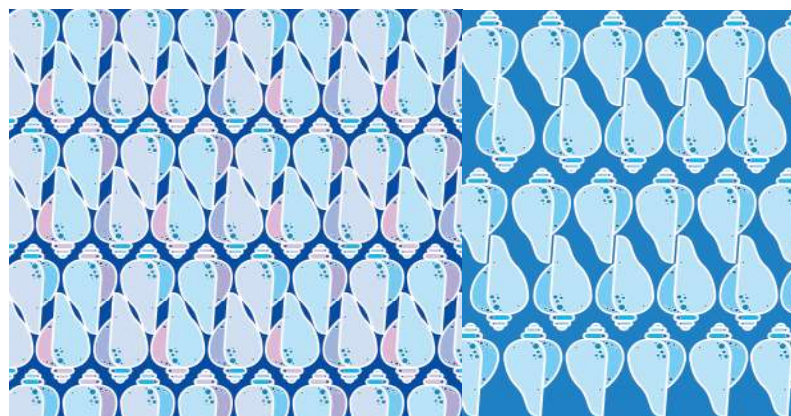


Figure 8(a): Explore the possibilities of varies visual-language of representation.





Figure 8(b): Explore the possibilities of varies visual-language of representation.

Upon the completion of the implementation of Cultural Product Design Model in the design process, the Faculty of Communication Arts, 50th Anniversary Souvenir Design (Scarf Design) has been completed. Under the framework of the culture-oriented product design, the scarf design interpreted the process of transforming Cultural Features to Design Elements.

The similar implementation of Cultural Product Design Model was conducted for designing another two scarfs design. In total, three scarfs design was completed base on the above-mentioned model.



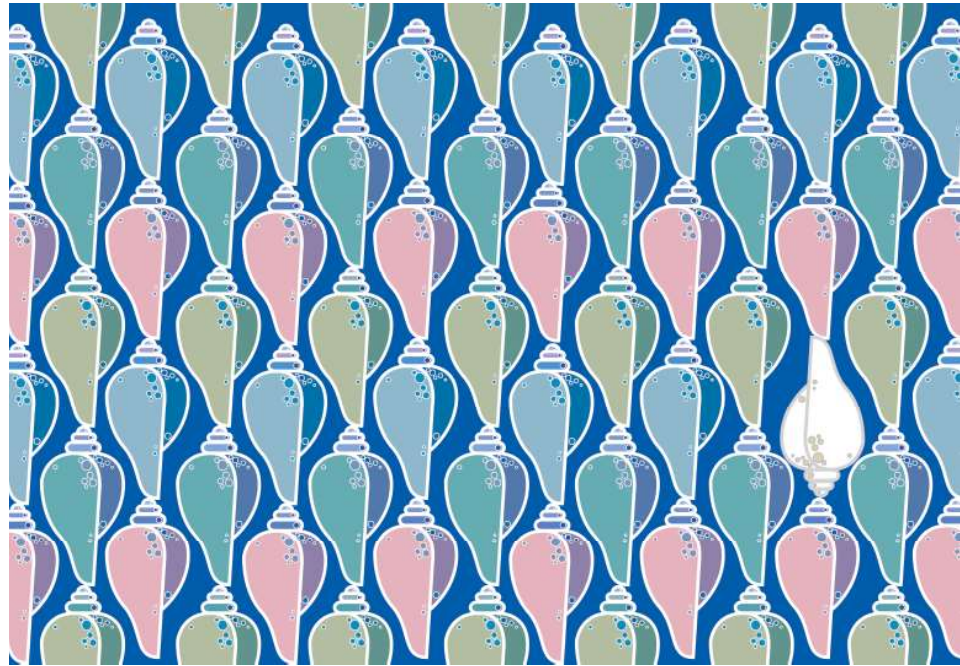


Figure 9: Scarf Design 1





Figure 10: Scarf Design 2



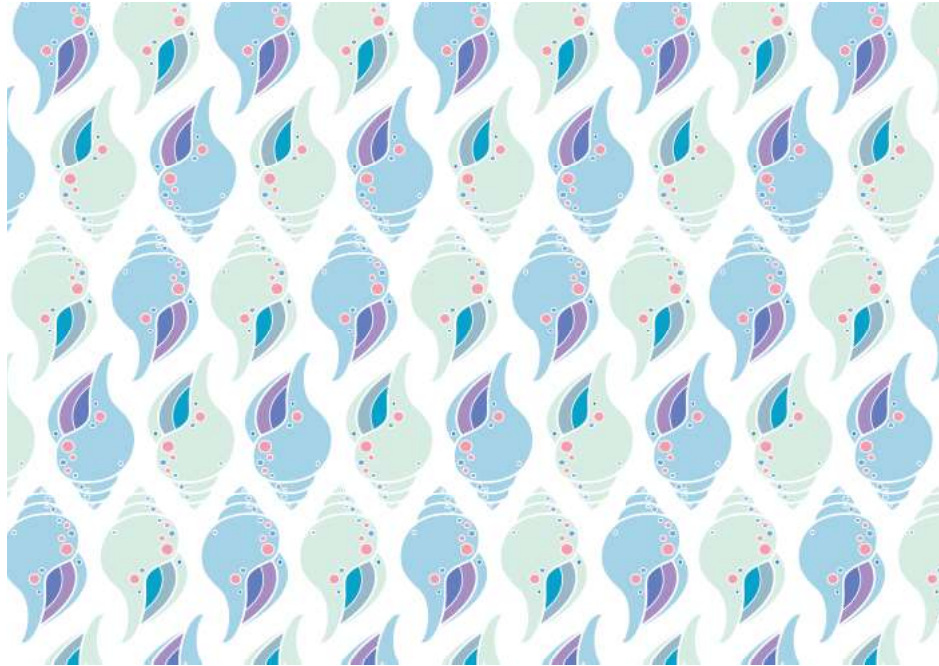


Figure 11: Scarf Design 3

Altogether three scarfs design was completed base on the Cultural Product Design Model. The three scarfs design interpreted the design concept with different graphics and colors combination. To ensure the outcome of the Communication Arts, 50th Anniversary Souvenir Design as a product that able to be associated with audiences from diverse demographic, three designs are made available for consumers' selection.

5.0 Conclusion

The practice-based research centered on a study to transform cultural features to design elements was conducted within a period of three months. The Communication Arts, 50th Anniversary Souvenir Design is a design project structured under the framework of culture-oriented product design. Base on the Cultural Product Design Model, three scarfs design was completed under to fulfill the research objective.





In the process of applying Cultural Product Design Model in designing culture-oriented product, phrase 1 (Identification stage) the stage of identifying potential cultural features was actually the most challenging start. It is a process involved a deep consideration of the feasibilities of the selected cultural features and its possibilities in transforming into design elements. Meanwhile, selected cultural features' contextual meaning and suitability for becoming a design product also required an analytical process. In the process of phase 2 (Translation stage) the interpretation of the cultural features into design elements required an analytical study of translating relevant features into the design. This stage is a high challenge for a designer, as translating cultural features into design elements is a process of generating new storytelling based on selected cultural features and turn it into relevant design elements for serving the design concept and aesthetic. In the process of phase 3 (Implementation stage), design elements such as forms, colors, and composition required a repeatability of multi-experiment in order to finalize the design which ideally as a most workable solution for answering the project needs.

Back to the objective of this research project, the designer employed Cultural Product Design Model as a framework to design the Communication Arts, 50th Anniversary Souvenir Design under the intention to communicate culture from a design perspective. The study to transform cultural features to design elements has been conducted to generate a culture-oriented product design. It is a practice-based research structured under graphic design as a discipline of visual communication. By and larger, the researcher/designer structured a practice-based research study to understand the production of a culture-oriented product. Future research and researchers may explore a deeper understanding of the similar research interest from diverse academic discipline.

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