The Application of Fish Scale Potential as a Decorative Media for Fabric Surface

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Abstract---Natural elements such as fish scale can be a form of media consumption and it has the potential to become fabric material. This research studies the surface material of fish scale to be applied as an alternative medium for fabric decoration. Moreover, fish scale inspires the cognitive senses of fabric designer to reflect and be perceptive towards the material used as fabric embellishment. The focus of this research is to encourage designers on the design elements and principles in incorporating fish scale as material for fabric decoration. Experience based on physical interaction has brought researchers to understand the basics of fish scale by focusing on the design and fabric pattern that will be developed.

Through this research, practical theory can be utilized in designing fabric embellishment. Meanwhile, fabric designer seeks the public reflection in achieving compatibility of fish scale as a concept by incorporating its benefits in textile design as well as empowering smarter fabrics.

Keywords---Textile Design, Fish Scale and Surface Interaction.

I. Introduction

What determines a designer’s sense in constructing procedures in fabric design? Media compatibility is the essence of textile and design. A designer’s cognitive, social and experiences are the parameter in proposing a design concept. However, the works of visual fabric should be designed appropriately to accommodate compatibility and appeal to the emotional aspect of the user. According to Catherine (2005), “in order to conduct the practice as articulated through craft features, the research has to advocate a fresh analysis of the particular traditions such as characteristics, processes and outcome of hand-crafted” (p. 88) [3]. In this sense, combination of ineffective materials would affect the compatibility between users and audience. The internal space constraints associated with surface decoration fabrics that do not interact physically and naturally to designers. Moreover, the designer’s manipulation of fabric pattern to promote experiences with smarter fabric could enhance the public and user acceptance towards a new design concept. Hence, this research is a step forward towards the innovation of surface decoration. This research focuses on the fish scale exploration are geared to observing its capacity and performance. The objectives of physical interaction on fish scale surface in fabric decoration will study:

- User’s acceptance and sensitivity to the artistic physical (environment and medium) of visual art works,
- The understanding on the elements of design and physical visual art works would interact to (action or mobility),
- The manipulation of the fish scales pattern on the physical fabric measurement of visual artwork.

This Research Involves with the Issues that Reveal Aspects of

- What are the designer needs to reach a level of fish scales compatibility in design sensitivities?
- To what extent of the fish scales productivity will contented the public necessities?

Knowledge and experience in understanding the demand and benefits of fish scales as a substitute medium in fabric manufacturing will lead to general user perception of the physical aspects of visual art. According to Von-Hippel (1988), apart from the expansion of existing knowledge, searching and collecting would be utilized based on new information’s [18]. In reference to the research questions, researchers have been able to see some of the priorities that will meet the research condition.
II. Addressing the Needs of Textile Design Research

The fabric designed should be in accordance with the dimensions or parameters based on the needs and analysis of utilization factors. According to Christensen (2004), the ability of the designer in presenting the priority aspects of the fair is the presentation of the priority aspects of the relationship can be categorized as the ability of a designer [4].

Meanwhile, the combination of fish scales and decorative fabrics will facilitate the demand of regular fish scales by incorporating it as a fabric surface. Hence, designers could implement a set of requirements in assembling the fish scales according to its level of quality-along with its artistic features relatively. This measure will also reflect the designer’s taste and personality through his selection of fish scales. With the outbreak of compatibility issues in design, the priorities of manufacture measurement for public observation on the fabric can be generated. The perception and cognition of designers can be combined and portrayed through the fabric’s decoration using fish scales.

This fish scale research could operate if we are able to work and understand the physical aspects of the external interaction of the medium. In different thought, according to Fiore, Kimle and Moreno (1996), the taste of compatibilities involved the elements of a textile’s touch to understand the performance principles [2]. Furthermore, the ability to engage would increased the sensation of ornamental fish scales on the fabric surface. Preparation of the media construction is also related to the design aspects that could work with a particular product. In addition, the submitted fish scales design necessities endure the focus on the sensational surface. Naturally, functionality and compatibility of the fish scales act as the designing elements in creating fabrics that appeal to potential users. Article submitted by Morganosky (1987), the demand and desire for this research fabric are essential in product manufacturing. Thus, design compatibility is based on the knowledge (human factor) [12].

Nevertheless, the needs and desires of the fabric designers will involve challenging his intellectual in between the attention and compatibility for quality products. Isignandisco aspects of fabric’s surface decoration, fish scales research will indicate the compatibility of the design and key ctor) aspects and relates to the manufacture of fabrics (productivity). According Von-Hippel (2005), the pioneers would develop and modify the products to fit with their need and respond to design innovation [17]. However, it is difficult for researchers to show how the sensation taste and harmony sense which is expressed in a tangible form (action). This is because the design could lead to biased opinions that lead to difficulties. Conversely, the excitement would affect by the compatibilities issues in different context on decorative surface. The outcome construction issue would failure guarded and work will lead to a significant provocation factor to public and audience. This lead to the understanding impact that not equivalent to the level of an individual thoughtful.

III. Observations and Analytical of Fish Scale Research

Fabric products that incorporate fish scale which is used as fibers should have equivalent quality material as it reflects its compatibility of a basic textile artwork. The fabric’s media should be compatible, exclusive and elegant according to design requirements. Furthermore, an appropriate media shall have some resistant and rugged features. Moreover, it is possible that fish scale is advantageous as an additional agent for absorption or thermal insulation. On the other hand, several factors which are against the framework of scientific research demand a group of researchers from social science and humanities to conduct this research which ultimately would strengthen the use of fish scale as an alternative media.

The research facts that improper to the studies will be a matter to the analyzing the artistic data. Visual artwork must coincide with the paradigms and research circles brought on by the respective researchers. The things that have been proposed to facilitate the research, researchers under humanitarian clusters need only to use the data or facts from scientific research to generate compositions of fabric designs that required. Combinations on the fact strengthen the aspects of the appearance of fish scales will be easier to be generated. The facts that accurate provide compatibility materials related to the physical work of visual art by a designer.

IV. The Understanding of Research Procedures Framework

According to Christensen (2004) and Cupchik (1995), discussed aspects of fashion design and creative textiles in particular domain. They believed the matter should be related to the visual art appearance and manufacturing quality fabrics [5]. A work of art will affect the acceptance and attention of the research stage that important for fish scales
artistic quality. Furthermore, Salem, Nakatsu, and Rauterberg (2006) stated, the observation in fashion and textiles products would carry terms of expressive particular designer [14].

**The Diversity of Experiences in Textile Design would Lead**

- Perception in appearance; The extensions of which appropriate common sense for users would be satisfied with a productivity of fish scales.
- Reasoning of fish scales compatibility; According reference the notion of researcher needs to be lean on a particular product.

**Action in the physical ; The researchers treatment to get used and understand about the harmony principal that puts satisfaction and emotional while facilitating measures of fish scales physical program.**

The fish scales studies justification will bring the perspective of a necessary element and experiences in research design. The clarifications also require an understanding of the intellectual process of action research in understanding the physical program of a designer and respondents. Personally, designers and researchers need to study expressive characteristics of particular users. According to reference [10] “the analytical framework to understand design participation and encourage mutual understanding for more collaboration between designers, researchers, users and publics”. Associated with the fish scale subject, designer personal interests should be presented as symbolic of the physical program that needs by a designer. This will establish the conditions and the behavior of the designer and researcher in the building a fabric. Therefore, it is very important for designers and researchers to identify and assess the needs of the art knowledge in textile design. The assessment will be associated with the relation of design elements fabric such as sensory, physical, behavioral and character. These factors can contribute strength and support to designers and researchers in the media surface exploration. Element in fabric design is essential in order to mature the innovative physical design principles that required.

**V. Physical Program on Fish Scale Research**

The understanding of the physical level on visual artwork may reveal an important role in forming fish scales in specific terms. Researchers need to place fish scales towards the understanding of design scenario that allow the process of interaction occurs. Reference [16] focus on the process of textile design should include the ethical and sustainable issues around textiles today. Compatibility and appearance aspect of fish scales will relate to the quality of the structure treatment done by a designer. This led to the sensitivity of fabric that will affected by behaviors and factors associated with space and complication. Therefore, the theory of perception and understanding of methodical would be considerate in fish scales that will be associated for the public and audient. Reference [11] Indifferent circumstances, Merleau-Ponty stated that the nomination of the nature and space do not have prescription in early stage (real and logical).

These relate to matters and issues that need to be regulated in fish scales research on the position and composition of the basic needs of decorative fabric surface. The interest on the textile design composition need to be build with variety of things that shows the important of the particular fabric. Furthermore, Merleau-Ponty extended the statement on the matter of design space showed is not available to act at certain moment. He stressed, a space is only as a medium of sensory to combine of an individual in (subjective) manner. In this aspect, fish scales also work in process that can build public understanding (objectivity) in physical and intellectual research that priority in work of visual art. Possessions have become necessities towards perception and appearance of fish scales that revealed the design of the fabric surface that just not being segregated views.

According reference [2] with proper strategy would strengthen designer activities with the present product for opened markets. Fish scales shall be generated with more realistic based on the current conditions by the respective designer. Among the things that can be used, fish scales associated with visual capabilities procedure such fabric construction, media application and composition aspects.

**VI. Idea of Preparation and Practice**

The concept of ‘programme’ is mainly associated with the physical experience of an individual, designers and researchers. The fish scales media would relate to the delivery and measurement of factors that need to be understood by a particular designer. Reference [9] stressed, researcher should stating the common measurement and being understood on various objects around us. By designers thinking, fish scales manipulation should be associated with the responsive of physical bodily experience that impressed from respondent interaction. According to reference [1] thought (concept and idea) will be impressed by the observations that lead to physical complications.
The circumstance involves with the behaviour and properties of humanities character that is associated with the measurement. According to Gibson reference [7], in theory (ability) has suggested that an individual should express life with potential in the treatment and action. Furthermore, designer should look at the relationship between fish scales with an intuitive understanding of the physical nature and can be extended according to the circumstances. Therefore, the understanding of a work force of fish scales will give meaning to specific physical and scaling design to get access on methodical research. The focus on the structure of the user’s physical activity will reveal external design aspects that need to build together with the fabric surface.

VII. The Goal of Research and Methodology Approach

Researchers looked at the activity and sensitivity of a designer should understand the compatibility and identify of design factors. This progress will reinforce the consciousness in fish scales designers to acquire design principles. An expression of program space will involve the physical relationship with fabric’s designer. The scales research requires the designer to customize a personal approach under particular manufacturing and production process. Textile design factors should be combined with the needs of media compatibility with readiness of designer’s personality. According Nagamachi, through the art and design would seek the anticipating of a person’s cognitive cum designer through images and objects. Furthermore, fish scales would highlight the need of emotion application in product that will be generated.

Approaches and Mechanisms for Fabric Manufacture would Generate and Determine

- Designers able to finalize the ‘mood board’ and build the understanding of the design ‘selection’ and ‘draft’ of form while finding the fish scales (knowledge).
- Designers able to compile (category) relationship between fish scales in particular experience with the needs of the fabric surface properties.

VIII. The Realization of Fish Scales in Textile Design Research

Methods (procedures) in surface construction will express the criticism of the design concept in (visual). The designer should able to supervise the prototype creation in the context of ‘pattern manipulation’, and the concept of fish scales design ideas. According to Günther reference[8], the project selection would take part approximately to establish a series of design profiles. The program of the design process would assure and determined designer to generate the understanding of artistic fish scales research. Designers need to work (research) in anticipation of under scheduled time. By identifying the sources of fish scales research, the integration and expression of designer would be happened in personal experience. In accordance with the fish scales research needs, the physical interaction will be impressed for the theory about the fabric surface.

IX. Exposure of Fish Scales and Fabrics Surface will Occur in the Form of

- Product dimensions with design objectivity,
- Compatibility function, and
- Emotional interaction.

The additional of fabric functions will be part of the approach of a designer attractiveness. The transition between program processes will enhance the interaction of respective designer. In order to stimulate an expressive design, a proper designed should be generated by the response from the work of fish scales prototype. This procedure is part of the initial phase on the product which used for specific research purposes. According to Turner reference, “the relationship between physical and product is a part of deeper individual and social inquiries”. For some users, the program is very important from beyond the finding and design physical. Based on the concept (idea), the transformation of the fabric pattern manipulation will determine the physical design program. The expressive is needed for designers to act immediately in ‘transformation’ for fabric’s prototype application. These expressive scenarios are part of the design process and changes interactive of the fabrics (fish scales) media.

X. The Importance of Research Relations Fabric Surface

Data gathering relating to the duration of the fabrics manufacture are very important for thought and a need for researchers to:

- Conduct discussions to obtain data and facts by submitting the interview inquiries to the respondents openly,
Requires designer and respondents to observe for participating in design program. Recording of physical program to identify potential matter from the respondents. Finalizing the media such creation (size) and (composition) would react to the physical action to build a prototype.

**Procedural Requirements during the Investigation Phase**

- Respondents and audients will determine the choice of fish scales through various concepts and images that would be shown for them. Respondents will be required to answer the questions of the interview in short and concise. The interviews will be audio taped and transcribed for further reference.

**During the Research Process Takes Place**

- Researcher and designer must make the respondents and audient to work together to answer the question briefly during the assignment of data collection. This is to get the detailed information in making choices of preface fish scales prototype. To suit the physical condition, the visual artworks have being manufactured. By achieve the program, the respective designers able to manipulate the scales and fabrics prototype. During the process, designer can show how public and audient will interact with the application of fabric and the appearance effectiveness of fish scales. The observation of a designer will be conducted periodically to review the of fish scales research goals.

**XI. Conclusion**

Naturally, a designer, respondent and public had shown the behavior and reactions during the procedure decoration fabric surface. A proper decorative of fabric surface involve in making procedure of fish scales design. The design process will be documented for the research purposes and analysis procedure. To reach the practical level, the designer, respondent and public needs to recognize the preparation and construction of fish scales. This constructs it easier for individuals in particular phase would refer the understanding and application of fish scales ornamental towards the fabric surface. The understanding of the compatibility and interaction should be in line with the requirements of design. The expected of design procedure would enhance the proposed development and pattern fabric productivity.

**References**