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**Industrial Design strategies
to enhance the value of Paraguayan artisans' textiles**

By

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Fine Arts in Industrial Design

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Abstract

Countries around the world promote their identity by sharing their culture, traditions, and people. Artisans' play an important way of demonstrating a unique variety of elements that show the identity of a country. They share the country's culture through its products in the world. Artisans have an insight into the cultural interaction of the folklorically work, inspired by elements of nature to produce different artisanal products oftentimes lack technical knowledge for how to develop their products. This paper proposes an industrial design strategy to help enhance the value of the artisans broaden their offering through new product development, while preserving their traditions, modernizing their designs, and increasing their importance in the economic development of the country.

Key words

Social Design, Artisans work, tradition, textile, enhance culture value.

Introduction

In every country, artisans work play an important role in the communication of cultural values, through iconic objects, such as in ceramics, textiles, wood, in between other types, representing a cultural signature. In every government artisans work, offers various options in term of products, but many of the artisans' products have not changed and evolved according to contemporary user needs, design innovation, expressing values and making a remarkable “reference to the functions, characteristics, and culture”¹. How can artisans reinvent their products updating their design style, enhancing the value and functionality of the artisanal textiles and adapting to contemporary needs? This paper describes how industrial design enhances the value of the Paraguayan artisans' work using national textiles and combining with other materials.

1. Cultural Identity

Typically, “the creation of products involves a cultured lifestyle”². The ideation of any product that specifically involves folklore and society lifestyle of artisans work product, it connects directly with a country's image, involving many traditional artisans working together combining empiric knowledge to produce very traditional products. Artisan products include ceramic or pottery, textiles, natural fibers, and jewelry, among others. “In every country, cultural and traditional products the identifies a nation”. The key people involved in their product design ideation, creation, production, and commercialization are the artisans that their knowledge is learned from their ancestor. “The Paraguayan is a culture were artisans work involved their

¹ Fayolle, Claire, Antoine Fenoglio, and Frédéric Lecourt. *L'objet du design = The object of design*. Saint-Étienne: Cité du Design, 2009, 16.

² Rodgers, Paul, and Alex Milton. *Product design*. London: Laurence King, 2011,14.

origin is inspired by landscape, nature, behavior, food and the physical, social and cultural development of people”³. The cultural identification defines elements that involve the traditional components of a country in terms of artisans works.

1.1. The importance of Paraguayan textile as an artisan work

“Artisanal textiles work it is denominated a creation developed by artisans’ handcraft”⁴. It is a type of work and art that is developed by a manual action, molding and creating arts and crafts to commercialize and represent a nation. One of the artisans works characteristics is that this work is developed with a very few or null interventions of a production strategy, machines participation or automated processes.

1.2. Types of Paraguayan textiles

The strongest connection that Paraguayan textile have are with our natural environment, representing remarkable elements in a very iconic culture element.

The types of textiles that are made an empiric knowledge and in a very handmade production way are⁵:

- The Ñandutí (the white and tight net of the spider);
- A’ó Po’í (a very thin and delicate lace made by hand);
- Po’yví (cotton waved textile made by hand and manual weaving system);
- Encaje jú (handmade and very rudimentary weaving lace textile);

³ Plá, Josefina, and Gustavo González. *Paraguay: El Ñandutí*. Asunción: Museo Paraguayo De Arte Contemporáneo, 1983.

⁴ "Instituto Paraguayo De Artesanía." Artesanía. Accessed April 15, 2019. <http://artesanía.gov.py/index.php/tramites/artesanía>.

⁵ Ñanduti: Instituto Paraguayo De Artesanía. Accessed April 15, 2019. <http://www.artesanía.gov.py/index.php/tramites/procesos-artesanial/ñanduti>.

- Karanda'y (a weaved fabric made by a Palmera tree dry fiber, made by the Paraguayan native Indians);

When considering these textiles as materials, their meaning takes inspiration for the Paraguayan nature, animals, plants, landscapes and trees, fruits and vegetables⁶. Transforming these textiles to underappreciated objects made by traditional textiles, to produce new materials, in fashion, furniture, accessories, housewares and representing a very versatile product application in different design fields to reproducing and applicable in different fields, having the versatility to be applied in different products.

1.3. Benchmarking innovative textile application in the Paraguayan market.

Artisans work in Paraguay, specifically traditional textiles, are used as the way that they are in the fashion field. The following brands are the main ones in Paraguay that are using the national textiles in a more innovative way they find in the market, without thinking in new form or shapes that could develop them in the design field.

Aki: Paraguayan brand that develops leather purse and Thermus with the application of the Ñandutí.

Astrid Poletti: Paraguayan jewelry brand that produces jewelry based on the typical Ñandutí.



Figure 1



Figure 2

⁶ Plá, Josefina, and Gustavo González. *Paraguay: El Ñandutí*. Asunción: Museo Paraguayo De Arte Contemporáneo, 1983.

Fio: Paraguayan jewelry brand that produces jewelry based on the typical Ñandutí.



Figure 3

Morena Toro: Paraguayan brand that produces a home product, bags and apparel with the application of the main shapes of the Ñandutí. Figure 4



Florencia Soerensen: High couture and fashion design of fancy dresses for weddings or important events outfits. Figure 5



Cecilia Fadul: Paraguayan brand that design bags and apparel with the application of the main shapes of the Ñandutí. Figure 6



Ocre: High couture and fashion design of fancy dresses for weddings or important events outfits.



Figure 7

1.4. Artisans work process

Artisans workflow in Paraguay it is considered more as a handcrafted process. Most of the production process and knowledge are based on the know-how without a formal structure to follow. Artisans learn how to produce their final textiles, ceramics, and jewelry by observing they families, communities or associations, more than have a formal structure that emphasize in establish a system to produce, providing them the opportunity to produce more qualified objects with an standardize system, that could help them to get effective production results. The lack of technical knowledge in the textile productions, creates deficits in their results, having consequently very handcraft appearance products, instead of more formals and unifying results. Every project became an incomparable piece, but the problem is that are produced in a very repetitive way by every textile artisan, when this iconic works could be applied in different aesthetics pieces.

The participation of Industrial Design in the artisanal textile production will help to “structure a strategy, that will connect artisans’ work with a technical process for product development”⁷, generating, as a result, the growth and innovation in their production of the traditional textiles.

2. Paraguayan Artisanal textiles Product Design Strategy

In the product design process, there are key functions that can be applied in the artisans work textiles and product development, will help them to enhance the value of artisan work in the market. The combination of these usabilities will increase the values of the products. There are

⁷ Lockwood, Thomas. *Design Thinking: Integrating Innovation, Customer Experience and Brand Value*. New York: Allworth Press, 2010.

four main components for the IPA Product Design Strategy as described below: Design, Research, Marketing and Manufacturing.

Design

By having industrial designers and artisans collaborating together, they can develop new physical forms, shapes, functions of the final product, that will meet better customers' contemporary needs. "The design process will involve the participation of new disciplines that will help to make more efficient the design construction"⁸, such as the participation of weaving technologies, pattern production, and product design, using aesthetics, ergonomics user interface and user contemporary needs.

Research

Industrial designers increasingly interact as researchers, mimicking how anthropologists and ethnographers study the culture and "cultural processes"⁹ by;

- Using methods to observe,
- Research and document people,
- Events and artifacts.

The information obtained by these professionals, in terms of textile meaning and what are the connection between textiles and the culture, will support the design and development of new products by bringing the artisans empiric expertise and knowledge of Paraguayan fabric production and the results of information results of anthropologists and ethnographers,

⁸ Ulrich, Karl T., and Steven D. Eppinger. *Product design and development*. New York, NY: McGraw-Hill/Irwin, 2012.

⁹ Rodgers, Milton, 67

observing and recording how artisans interact with the products that they are producing and how consumers interact with artisans' products. The designer as a researcher will be involved in "the process of exploring the real needs and desires of the consumers and social needs"¹⁰, through the products made by different Paraguayan artisans' work.

Marketing

The marketing development will be managed by the Paraguayan Institute of Artisans. This organization is responsible to promote artisans' work and support artisans' in Paraguay. The Institute is the point between the artisans' product development and customers' contemporary needs. The marketing to enhance Paraguayan artisans' textile work will facilitate the following:

- The product identification;
- Giving their work more opportunities in the market;
- Helping define new segmentation,
- Support the artisans' designs and identification of new customers' needs, wants and desires to see in their work.

The Paraguayan Institute of artisans' work interacts as the responsible of the artisans' product marketing that launches new products, promotes them, communicates to the market what they are doing and gives more value to their products.

Manufacturing

¹⁰ Ulrich, Karl T., and Steven D. Eppinger. *Product design and development*. New York, NY: McGraw-Hill/Irwin, 2012.

Having the “participation of designer in the manufacturing process”¹¹ of these artisanal textiles, assuming together the responsibility will be shared by the organization and artists of designing new forms and shapes that will give new products in the production system. Designers will help the artisans to produce these products with the intervention of new materials.

2. The objectives of Industrial Design intervention in Paraguayan textile production

Giving form to uses, optimizing and adapting uses to contemporary needs

Designers participating in traditional Paraguayan textiles production will help artisans to:

- Give new applications to textiles uses,
- Optimize their application in the design field
- Taking care of user needs and adapting their uses to contemporary needs.

In the first point of giving form to uses, is the opportunity to optimize uses refers to “bringing together complementary functionalities”¹² to the textiles, using traditional patterns and production process but innovating in the product results. Giving and extending uses of the textiles, providing more interest in what the new possible performance and effectiveness of Paraguayan textile application in new products are. Having, as a result, the enhancement of the functionality of them that was before more decorative and handmade.

¹¹ Lockwood, Thomas. *Design Thinking: Integrating Innovation, Customer Experience and Brand Value*. New York: Allworth Press, 2010, 75.

¹² Fayolle, Fenoglio 31

The second point is taking care of the attentiveness to users of the textile. To create an adaptation to everyone concerned that the Paraguayan traditional textile design should be updated in terms of products and functionalities. Being accessible to users, producers and the institute that regulates artisans work. Considering that this is possible bringing together the designers, the artisans, the Paraguayan Institute of artisans work and the final users. Putting together these two processes will give as a result of traditional textile that is adapting their uses and application to satisfy contemporary needs.

Formalizing design benefits of the Paraguayan textiles.

The Paraguayan textiles and the direct connection to the culture represents an important element of the national tradition. Formalizing the design benefits of these artisanal textiles by expressing related to the artisan's personality and professionalism. Related to the brand that they represent for the culture producing these handcraft textiles. Related to the local needs to enhance the value of them in the market and that is related to the expertise that they show their hand produce of these valuable textiles.

The other reason of formalizing the intentions is to “making reference to the function of the textile”¹³, the innumerable possibilities of application and ways to produce them, using their patterns characteristics, modularity, and different applications, making them more valuable as a potentiality to enhance their value. In addition, the most important think of the benefits of their applications referring to an entire culture and tradition through them, designing, constructing, using art and creativity to make new products.

¹³ Fayolle, Fenoglio 47

Contributing to the social change, proposing and supporting commitment

Taking the initiative of interrogating the social needs, in terms of know what artisans' need to grow in their production field. How the Paraguayan Institute of artisan's work can help to enhance the value of this culture manufacturer. How professional of the design, culture promotion, and government institutions, can support the growth of traditional textile production, representing the Paraguayan culture. Stating with knowing the social culture and tradition and how textiles are connecting with the Paraguayan nature, landscapes, gastronomy and other elements that represent the national textiles and how the society perceives this works. Know the social needs, understand the way how the Paraguayan textile could grow and become more and more an economic impact in the country by proposing change through the development of design projects, applying the design method and create a design intervention with new shapes and form that could be the innovation in the traditional textile business. In addition, contributing to social changes by "supporting commitment by company's participation"¹⁴ by offering updates in materials benefits, machines or tools that could be presented and training artisans', so they could be innovating in their textile's productions. Adding company's participation, it is very important authorities' participation, demonstrating interest in national and traditional artisans work, showing a very cultural side of the country and the potentiality of these artisans work and the capability to be applied in different ways and combines different fields, such as pottery design, fashion, furniture design, interior, houseware design in between other fields. Finally, it is important to add the participation of Non-Governmental Organizations (NGO)'s that help to increase the development of the country, such as the united nation, the world bank, the

¹⁴ Fayolle, Fenoglio 89

Interamerican bank or the Latin-American States Organization. These NGO's support economic growth through projects that involves fields that are related to the country.

Improving production through technology participation, applying new techniques and generating new impact.

This section of the research explains the integration of new Paraguayan textiles production techniques, implementing new shapes and forms patterning with serial production of the traditional fabrics, enhancing their existing functions and exposing to the market the versatility of this material. The design and production techniques advance in materials implementation, production modes, and systems. This process shows the simplicity access to the variety of technology to textile patterns, weaving systems, 3D print patterns, laser grabbing mechanism to reproduce textile in different materials and products, using original textiles, giving traditional fabrics new concrete form inventions. All these processes are limiting the environmental impact during the production process, using more natural fibers and water base dyeing systems and reusable materials like wood and clay. "Improving production through the technology participation will generate an important growth"¹⁵ in traditional artisanal textile in Paraguay and this process could be considered in other tradition textile preserving the art work that identifies a culture of a country.

¹⁵ Ulrich, Eppinger, 255.

Conclusion

Throughout this research, could be possible to visualize the opportunities to explore and apply more versatile the Paraguayan textile with the Industrial Design participation in the ideation and production process. Creation new results in aesthetics, functionalities increasing the application development of artisanal textiles.

Having Industrial Design participate in the traditional textile production is a chance to construct an effective manipulation of the textile in the product, increasing the variety of results, providing artisans to maintain their styles, and giving new business growth and promoting the artisan's economy of a country.

The Paraguayan artisanal textiles can have a production objective with new functionalities and applications, having a compromise with the country culture, preserving the tradition of the nation.

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