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ALIGNING DESIGN AND THE SOCIAL INNOVATION APPROACH

Giselle Merino

Universidade Federal de Santa Catarina
Postgraduate Program in Design/Nucleus of Design
Management
Florianópolis, SC, Brazil
gisellemerino@gmail.com

Marco Ogê Muniz

Universidade Federal de Santa Catarina
Postgraduate Program in Design/Brazil
Florianópolis, SC, Brazil
marcooge@gmail.com

Isadora Burmeister Dickie

Universidade Federal de Santa Catarina
Postgraduate Program in Design/Nucleus of Design
Management
Florianópolis, SC, Brazil
isadora.dickie@gmail.com

Milton Luiz Horn Vieira

Universidade Federal de Santa Catarina
Postgraduate Program in Design/DesignLab
Florianópolis, SC, Brazil
milton@cce.ufsc.br

Luiz Fernando Gonçalves de Figueiredo, Dr.

Universidade Federal de Santa Catarina
Postgraduate Program in Design//Brazil
Florianópolis, SC, Brazil
lff@cce.ufsc.br

Eugenio Merino , Dr.

Universidade Federal de Santa Catarina
Postgraduate Program in Design/Nucleus of Design
Management /Brazil
Florianópolis, SC, Brazil
merino@cce.ufsc.br

ABSTRACT

Based upon the experience of research and applications in social innovation, this article seeks to present, relate, and discuss experiments carried out in conjunction with social entrepreneurs, traditional communities, and the mariculture sector in *Santa Catarina*, Brazil. This study was carried out at the Design Management Nucleus of the Federal University of Santa Catarina, integrated with the graduate program in Design. Based upon the phenomenological method, which concerns itself with direct descriptions of experiences, and support from the theoretical references within this theme, it was possible to better comprehend the contribution of design in social innovation through a qualitative approach, exemplified in the three cases described above. Complementary to this, the use of direct observation techniques, interviews, accompanying activities, as well as photographic and video registries permitted a detailed description of each situation considered, which was represented by an individual in the case of social entrepreneurs who presented the action of

reutilizing vegetable oil as fuel for maritime vehicles, as soap, and organic fertilizer. The traditional communities were represented by the *Taboa* action, which reunites a group of women located in *Guarda do Embaú*, SC, Brazil. The mariculture sector was represented with an association of mariculturers from the south of "Santa Catarina Island" (Ilha de Santa Catarina) called *Amprosul*, composed of 27 members. Social innovation may be defined as changes in the manner in which individuals or a community act in order to resolve its problems or create new opportunities. In this sense, design presents itself with an important role with respect to sustainability with its ability to design alternative solutions to be applied to a sustainable future. This is fortified further with the consideration that one of the auxiliary principles of design is to improve the quality of life of people and to promote well-being. Others are to look at social innovation, identify promising cases, utilize sensibility, capacity, and the abilities of the designer in order to design various artifacts, and to indicate new directions in technical innovation.

The results of this study permit us to visualize design's contribution in social innovation, referring as much to social processes of innovation as social interest innovation.

INTRODUCTION

Interference from human beings upon the planet have made environmental changes more and more evident through the significant climatic and geographic alterations which have been the object of special attention over the last few decades. Gradually, attention has also been given to other aspects deemed to be important and which have directly affected not only environmental aspects, but the people which inhabit them and the so-called social factor which closely accompanies the economic factor, configuring these three factors as the fundamental pillars of sustainability.

Balance between these factors, not only upon a quantitative order and much more upon a qualitative order, has been more and more frequently an object of study and discussion in diverse areas. Design has shown itself as an area of great potential in developing innovative solutions, both in technological aspects as well as in social and economic aspects, finding itself at the forefront of a global need – directed thinking towards a sustainable future.

This future-directed thinking considers that the quality of life for all people should be a constant and equal concern for all. Furthermore, it is possible to identify a series of actions in countries with greater difficulties, as for example in Africa, where a series of approximations are carried out in different areas with the common objective of seeking social, environmental, and economic balance. One of these identifiable forms is participative social innovation, where the communities themselves take an active part in the process, integrating themselves and considering and utilizing their own solutions. In this sense, design assumes a role of articulating and perfecting such solutions, making it possible to reproduce them, seeking maximum efficiency and effectiveness.

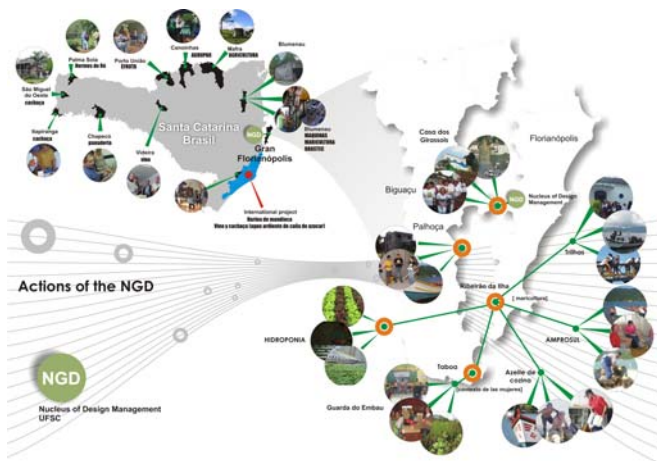
The search for solutions to problems within a community may, however, count upon the union of efforts and abilities, principally that from design. In some cases, the results obtained may be considered to be significant innovations in the manners of being and doing things. It is

what may be considered in the example of Orti del Parco Nord¹ [1]. This is the example of a case in which a large semi-urban park (Parco Nord) near residential zones in a suburb of Milan, Italy, has been transformed into an area for cultivating plants and vegetables. The park, which possessed a large number of non-utilized spaces and which suffered from a lack of maintenance, was transformed into a locale for family entertainment, improving even monthly incomes (thanks to vegetable production). Basically, it transformed people's daily lives, giving them the opportunity to keep themselves busy and useful. In this case, the challenges of design were to create services and tools in order to support the work of beginners of this activity (cultivating plants and vegetables), as well as creating networks for sharing experiences and competences. Manzini states, "once identified, we should support and facilitate their diffusion" [2].

Communal initiatives which seek the necessary dynamics to produce solutions to common problems, or social innovations, are the reflex of some of the challenges currently faced. Among these challenges, one may cite the inequality of income distribution, occasioned principally through accelerated economic growth, creating greater potential for social exclusion. On the other hand, the fact that innovative solutions may transform themselves into tangible products, thus being consolidated in order to be disseminated, may demand greater severity and demand concerning the structuring and communication of these very solutions. As complex as carrying out actions and putting them into practice is disseminating them and making it so that other communities incorporate them.

It is in this sense that the Nucleus of Design Management (NGD) has been developing actions since 2000, integrating communities and different sectors, evidencing and promoting social innovation allied to design solutions, under a systematic perspective proposed by design management. The following figure shows some of these actions.

¹ Author's translation: Vegetable Gardens of Parco Nord.



Actions of the NGD.

This article, however, seeks to present, relate, and discuss social innovation cases and social undertaking, traditional communities and the mar culture sector of the state of Santa Catarina, Brazil in what concerns its aligning with Design Management. The cases presented are part of the actions of the Nucleus of Design Management, linked to the Graduate Program in Design at the Federal University of Santa Catarina, Brazil.

METHODOLOGICAL PROCEDURES

Based upon the phenomenological method, which concerns itself with the direct description of an experience through a qualitative approach based upon a theoretical reference related to the themes of design and social innovation, it was possible to better comprehend the contribution of design in the cases of social innovation previously discriminated. Complementarily, the techniques of direct observation, interview, activity accompaniment, and photographic and video registry were utilized and thus permitted a detailed description of each situation. They were: (1) social entrepreneurship – represented by the social action of recycling of used vegetable oil; (2) traditional community – represented by the *Taboas* action, which reunites a group of women in a community in *Guarda do Embaú, Santa Catarina*; and (3) the mar culture sector – represented by the Association of Professional Mariculturators and Fishermen of the South of the Island (AMPROSUL).

PRESENTATION OF THE CASES

Recycling Used Vegetable Oil

Just as companies depend upon fleets of automobiles, trucks, or vans to aid in developing their business, small mariculture producers utilize small to medium-sized boats in order to carry out their activities.

A large part of Brazilian aquaculture production has been supplied by small producers as an alternative in generating employment and income, as well as for the development of sustainable aquaculture [3]. The techniques applied in its cultivation employ familiar labor and may be considered artisanal: the small producer acts in all phases of the production chain – produces, benefits, distributes, and commercializes their products. In the majority of cases, their profits are low, not allowing for re-investments in the operation [4]. Calculating the challenges and uncertainties, the necessities of the activity have led to a constant search for solutions which make it possible to continue producing, given the incremental profits under current strategies.

Thus, recycling used vegetable oil, developed by a mariculturer and social entrepreneur, has arisen as an alternative in order to aid sustainable development in the mariculture activity in the community located in *Ribeirão da Ilha*, in the south of the Island of Santa Catarina, Brazil. This action presents itself as an alternative for increased income, preserving the environment, and local social mobilization. Dickie et. al [5], highlighted the benefits obtained through this action and contemplate the aspects praised by sustainable development: “among the social and economic aspects, the opportunity for supplementing income among mariculturators is highlighted, making their fixture possible for the development of local mariculture, which is an activity significantly on the rise. This, added to the fact that the action contributes towards the promotion of taking care of the environment, especially with respect to contaminating the waters in which shellfish and other seafood are raised.” [5].

The action of recycling vegetable oil may be considered viable upon recognizing that the *Ribeirão da Ilha* region possesses a strong tourist attraction, with a significant number of restaurants located on the shore. Studies indicate that vegetable oil used in preparing food,

if discarded without proper care may become a harmful residue to the environment. One liter of product can pollute up to one million liters of water if discarded directly into the environment; but if recycled, the oil can be transformed into bio-fuel, soap, and fertilizer [6].

The economy derived from the use of bio-fuel originated from recycled vegetable oil can reach seventeen Brazilian Reals per day, reducing gas emissions up to 75% when compared with diesel fuel. Furthermore, it does not explode nor ignite easily, which beyond representing preponderant importance in terms of environmental preservation, it also translates into a security aspect for these producers [7].

Recycling actions involving used vegetable oil have been developed in various Brazilian cities, such as *São Paulo – Projeto Cata Óleo*, from the *Universidade de São Paulo de Ribeirão Preto* –, and in tourist municipalities of the Southern Foothills (*Serra Gaúcha*) – *Projeto Remov* [8], considered by the authors to be capable of promoting social inclusion and quality of life improvement for the population.

In the case of recycling vegetable oil as an action, the design was applied as based upon the foundations of Design Management, with the objective to aid in the consolidation of the action: not only in defining a name, but also in the development of a visual identity and advertising materials, as well as replication of the action creating the potential for action replication in other communities. As such, it was verified that the principal problem would be in promotion and advertising, keeping in mind the lack of knowledge of the population towards the negative impacts which discarding used vegetable oil can entail.



Identity and support material of the *Projeto Ciclo*.
Source: NGD-UFSC

The application stages of Design Management in this case are composed of: (1) diagnosing the action, keeping in mind the organizational, communicational, and environmental (macro and micro environments where the action of recycling used vegetable oil is inserted); (2) critical analysis, based upon information raised in the diagnosis; (3) elaborating strategies and recommendations; (4) developing materials; and; (5) applying strategies and materials.

During all the stages of executing the project and research in this case, we counted upon the support of the social entrepreneur. It is important to mention that the design project of this action was developed together with the students of a Project class in the undergraduate coursework of the Design Program at UFSC, under the orientation of the NGD; the proposal chosen having been applied to the promotional material². Currently, this project is developing a pilot workshop with inmates at the *Florianópolis* detention center, counting upon the participation of social entrepreneurs, characterized as the first concrete action of the project cycle³.

Action Taboa

The “Creative Collaborative Community” from the region of *Guarda do Embaú* in *Palhoça, Santa Catarina, Brazil*, is being developed through the partnership between the Nucleus of Design Management (NGD) and the Nucleus of Systematic Approach to Design (NasDesign), both at the Federal University of Santa Catarina



² Team made up of the students Aline, Clarissa, Diego, and Julia under the orientation of the Master's student Giselle Alves Schmidt during the second semester of 2008.

³ The *projeto ciclo* workshop in the *Florianópolis* detention center is conducted by the Master's student Isadora Dickie and counts upon the participation of the members of the NGD/UFSC.

(UFSC). This study seeks to highlight the social innovations of the community located in *Guarda do Embaú in Palhoça, Santa Catarina, Brazil*.

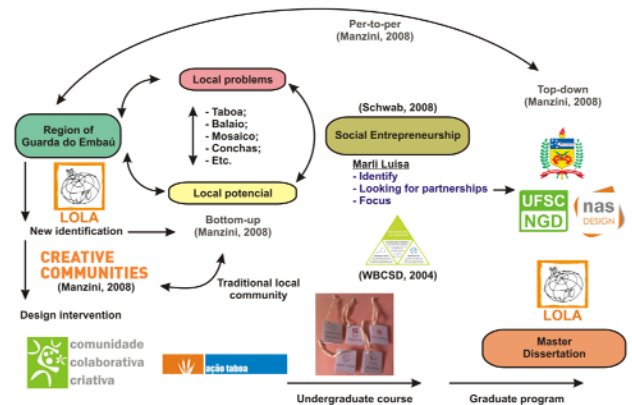
The local community of *Guarda do Embaú* is characterized by possessing traditional aspects, originated in the colonial era, which are utilized as an alternative source of income. A growing number of national and international tourist visits have caused diverse impacts on the native residents. Attracted by the natural beauty of the beach and the surrounding forests, they have spread throughout the region. This situation has occurred principally during the summer months. With this, a large part of the time that was habitually reserved for traditional activities, lately have been substituted by the exercise of services which attend tourists.

As such, artisanal fishing, confectioning of products based on rush fibers and *taboa* fibers, among other traditional activities of *Guarda do Embaú* is found in a moment of adaptation. This process has brought a new configuration in the organization of the community. During the four months of summer, the natives have spent attending tourists in order to guarantee their financial survival for the remainder of the year.

And interesting property of this situation and there were groups of people that organized themselves locally in order to resolve social problems, even with this set of factors that apparently would be adverse to such an action. Thus the region has been identified as a creative community, due to the presence of such promising cases of social innovation, as mentioned by Meroni et. al. [1].

For design to appear in creative communities, Manzini [9] proposes three forms of interaction: Bottom-up: from the active participation of those interested; Top-down: from the intervention of external institutions; Peer-to-peer: an exchange of information among similar organizations.

In this case, a design strategy that could consider the greater quantity of interactions that the community needed in order to develop economically in balance with social and environmental aspects was utilized, under a systemic perspective.



Systemic approach of design. Source: NASDESIGN.

Thus, a graphic element was developed which could serve as an identity for the artisans of the region. Its concept integrated the principles of the creative communities through the suggestion for interaction among people and the local traditional communities through the reference to existing cave inscriptions in the region.



Identity developed, identification tags for products, and *Taboa* fiber mat. (source: NASDESIGN).

After developing the identification, which was approved by the community, identification tags were created for the products. This was carried out through the collaboration of the Graphic Design undergraduate students at UFSC⁴. They projected the tags that serve to identify the

⁴ This project became part of the master's dissertation of Mark Ogé in the post-graduate program in design of UFSC, which currently builds its field research in the community

products and their producers, among other materials.

Based on this first approach, a research-action process will be carried out, which suggests collaboration among the researchers and the community agents implied in the research. This is justified by the fact that the focus of this type of investigation which initially was geared to a search for solidarity has now contributed towards the disclosure of collaborative methods.

One observes in this action the communities' needs to be valued and recognized, especially. In this sense, design identified through a systemic approximation and created the potential of the strong points of the group, developing promotional strategies. The dominion connected to social development and local development are examples of this.

AMPROSUL Action

With more than 561.4 kilometers of ocean coast, Santa Catarina is the most important state producer of oysters and mussels cultivated in the country, surpassing 85% of Brazilian production [10]. The denomination for this activity is malaculture⁵, which arose in Santa Catarina as an alternative source of income for artisanal fishermen. Over time, it came to represent their principle source of income [11], characterizing these producers as groups formed in their majority by families.

The relationship between products originating from producers with family characteristics and Design as a difference-making factor in competitiveness may be a great source of stimulus for identifying and developing social innovation actions. Design may be able to assume the commitment of intermediating the producer-consumer process of communication, aggregating and evidencing value to products derived from this sector denominated family aquaculture. Design plays a fundamental role in creating a concept which reflects and increments its principle characteristics, the technology involved, its productive region, and its responsibility as a sustainable sector, in summary valuing and promoting the activity itself.

Considering the assumption that products from these groups present quality as much in the process, raw material, as its identifications (visual-brand identity), its labels and packaging

in a significant number of cases do not reflect such quality. Another important factor worth mentioning is the non-consideration of legal and sanitary aspects in production and commercialization, which weakens the possibilities for development and growth.

As such, one of the objectives is to show how design may provide greater notability for the product, explicating its quality. As a consequence, it has reinforced its competitiveness. This may be better understood upon investigating aspects such as identifying origin, nutritional information, normative aspects (legislation), visual (colors, texts, and materials), among others. In this regard, one item which has not been explored refers to the familiar origin of production, a fact of which is greatly valued as of late, the forms of legal protection which practically do not exist in this sector, unraveling a limited process of financial gains which practically permit the subsistence of the familiar group at its limit, impeding advances to its development and growth. It is important to reinforce that the aspects previously mentioned are not the only causes of this situation, but in this case present themselves as relevant and aligned with the research presented.

In this sense, Manzini and Vezzoli [12] affirm that, "the relationship between environmental sustainability and a sustainable society should be understood in its complexity. The first (environmental sustainability) can only exist in a society that promotes and sustains."

This action focused upon the Association of Mariculturers and Professional Fishermen of the South of the Island – AMPROSUL—and had as its objective to increase the potential for improving competitiveness of the products and processes, creating conditions for the consciousness towards the importance of social sustenance and the benefits from Design Management.

In 2007, preliminary studies were carried out with the finality of prospecting research possibilities in conjecture with the aquaculture sector. These studies demonstrated the existence of fragilities in the area of design, specifically with regard to visual identity, packaging, and communication and propagation. In the same year, it was possible to truly initiate more concrete studies in the sector. The first studies indicated the great economic dependence upon production, the predominance of the family structure in work, as well as reduced

⁵ Malacoculture refers to cultivating mussels.

mechanization. They also verified that the most well-known mollusk is the oyster, but the greatest dependence was found on mussels, as it is the product with greater repercussion in the national market.

Based upon these initial considerations, a project⁶ was started to become developed in Design Management, applied to a small productive group in the aquaculture sector, preferably one demonstrating familiar characteristics. AMPROSUL is composed of 27 members, located in *Ribeirão da Ilha* in the south of the Island of Santa Catarina and was founded in 2005 by a group of familiarly characterized mariculturers. The predominant product in the activities of the association is the mussel (*Perna perna*), known most widely throughout the region as a mussel. Its production is initiated upon obtaining the "seeds" in the ocean through collectors. The strong point which maintains these associates united is that of "...plant together...", in the sense that the members meet in order to confection and place the collectors in the water. After a few months, they meet once again in order to remove the collectors and divide the seeds.



Activities of AMPROSUL. Source: NGD-UFSC.

Among the information considered to be relevant, the inexistence of a visual identity (brand), irregularities in the legal part of the existence of the Association (registry), difficulties in production, and commercialization are highlighted.

The concepts defined were: group, unity, partnership, family, quality, professional, growth, community, security, confidence, origins, *Ribeirão*, sustainable, well-being, tradition, generations, growth, future, good practices, hygiene, sea, net, collectors, boat, buoys, mussels, oysters, scallops, and cockles. Beyond

⁶ This project has approval of the Ethics Committee in Human Research of Federal university of Santa Catarina.

the visual identity project, an institutional video was developed, as well as a website.



Material developed for AMPROSUL. Source: NGD-UFSC

As future actions, the development of packaging, research concerning denomination of origin and geographic indication are previewed, as well as other forms of protection and valuation. Through the research and studies carried out, the fragility of these groups was evidenced and corroborated, reason enough that this theme has already been incorporated in future actions.

CONCLUSION

The contribution of design in social innovation, whether to increase the potential for its divulgation through the development of promotional material, or whether it is through Design Management in a strategic and systematic attempt is promisingly presented in the cases previously published. Beyond proposing actions for integration and participation together with the communities and productive groups, one observes that it is possible to develop projects together, without radically altering the essence of the two groups, participating in the manner of an articulation among diverse actors who are configured in this social system.

The reflections, from the sustainability point of view, manifest themselves clearly upon awakening a greater sense of responsibility towards environmental questions in these groups and communities. But they further awaken a comprehension for the span of the social factor and its reflection in the economic factor, which

then permits growth and sustainable development.

The aspects of identification and communication become primordial for their economic development, and consequently aid in improving quality of life both individually and collectively, including this in the locale itself. In this sense, the results achieved to date may be considered positive, as they permit the development of directly applied scientific research in the local reality.

In this way it is possible to confirm the importance of support for research and to scientific development, and in this case development applied to real situations, which are fundamental for both institutions of higher education and financial organs which have offered this recognition to the Brazilian National Council for Scientific and Technological Development (CNPq), Coordination for the Improvement of Higher Education Personnel (CAPES) and the Federal University of Santa Catarina (UFSC).

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