

## **Social Responsibility and participatory approach in design: another aesthetic is possible**

**Paulo Fernando de Almeida Souza**

PH.D. in Architecture and Urbanism, Designer and Professor at the Federal University of Bahia,  
School of Fine Arts (UFBA/EBA), Brazil  
Rua Araújo Pinho, 212, Canela, Salvador-Bahia-Brazil, 40110-150  
E-mail: [designpaulo@gmail.com](mailto:designpaulo@gmail.com)  
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**Ana Beatriz Simon Factum**

PH.D. in Architecture and Urbanism, Architect and Professor at the University of the State of  
Bahia, Brazil  
Rua Silveira Martins, 2555, UNEB/DCET, Cabula, Salvador-Bahia-Brazil, 41195-001  
E-mail: [anabiasimon@uol.com.br](mailto:anabiasimon@uol.com.br)

### **Keywords**

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### **Abstract**

The main goal of this paper is to reflect on the role of design in developing strategies for excluded populations, taking into account the perspectives of Fair Trade and Solidary Economy. More precisely, we focus on the creation of social technologies for products, techniques and/or reapplied methodologies, developed into the field of solidary economy. Some results of the work of designers and members of cooperatives are presented, using reconditioned and recycled materials as dashboard for product design, in Salvador, Brazil, showing that another aesthetic for the dynamic of sustainability and social responsibility in design is possible.

### **Introduction**

The debate on the aesthetics of sustainable and socially responsible products represents a significant advance in the discourse of design, promoting solutions that promote the quality of productive systems as well as the satisfaction of user needs with regard to the quality of the systems of objects.

A relationship between unsustainable practices and the aesthetic qualities of manufactured products was presented by Walker (2005, p. 48), highlighting the fact that the aesthetic of most manufactured products, especially those of mass production, is associated with "social and environmentally harmful practices" due to the fact that it represents waste of materials and excessive energy consumption, both in their production processes, and in its use by the consumer.

Another aspect related to the aesthetics of the products raised by Walker (2005) is the cultural contextualization of the objects, seeking the assistance to the local design particularities, which increases the chances of acceptance and prolonged use of objects by customers / users. In this sense, the author proposes the aesthetic indicator "culturally neutral" to identify objects that do not belong to any group of users in particular, no matter if they come from China, Brazil or England, and therefore impartial. This aesthetic fails to meet the needs of cultural resonance of design, which could establish a

more structured relationship of use with diverse public, increasing, for example, its useful life.

Thus, the definition of aesthetics in the design process should focus on decision-making centered in sustainable and socially responsible practices, adjusting the perception of the proposed form for the objects to the model of human development beyond the indiscriminate use of artifacts, always searching for the concern with the environmental, social and cultural impacts in the development of objects.

This paper presents design alternatives, which were implemented based on the participatory approach in product development, in the so-called solidary businesses, where designers and cooperated pickers dialogue aiming the sustainable and socially responsible practices in coping with problems that affect the development of societies, particularly those of economic, environmental, cultural and ethic aspects.

### **Design and Sustainable Practices**

Based on the principle that the learning of solidary economy strategies, that is, associative economical actions where work, ownership of assets and capital goods, the results of trade and the knowledge of decision-making power are shared by all participants, taking into account principles of equity and solidarity in labor relations (CRUZ, 2006), focuses on the collective knowledge, built through the contribution of each participant in the process. We believe that design can work as a relevant mediator for the necessary dialogue and connection which motivate people to achieve their goals in a sustainable world.

In countries regarded as peripheral or with recent industrialization process, the implementation of solidary economy projects is focused on offering job opportunities and better labor conditions for producers with small production capacity, such as those in rural communities or artisans' associations, promoting better life conditions and self-esteem of marginalized population that did not manage to have other alternatives in order to become economically and socially active and even have a healthier life with minimum acceptable dignity.

In our view, one of the most efficient methods of design applied to the consolidation of solidary economy is a participatory approach in Design, which in the field of information technology is known as method of Participatory Design, which aggregates a set of strategies that aim to give the participants the opportunity to act decisively in decision making, with emphasis on the increasing of self-esteem, individual participation and involvement in a collective project. According to the first studies of Howard (2004), the participatory approach in design can be understood as a method built from the exercise of democracy in decision-making, acting directly on the specifics of confluences of people, institutions, cultures and economies through exchange of knowledge of experts and non-professionals, which adds significant cultural resonance to design solutions.

### **Development of a possible aesthetics for sustainable and socially responsible products**

This study presents some results that were obtained by means of the participatory approach in design, considering decision making processes together with communities,

in search for an aesthetics of sustainable and socially responsible products, in Salvador, Bahia, under the authority of the State University of Bahia (UNEB) in partnership with local cooperatives.

One of the first experiments using the design studies in the development of products made by communities was the support of the university to a cooperative of recyclable material pickers, located in the suburb of Salvador, started by a UNEB professor in 2005<sup>1</sup>, with the support of the Brazilian CNPq organization [the National Council of Technological and Scientific Development]. Under the supervision of a researcher, the members of the cooperative were invited to attend product project classes, in a way they were together with the regular graduation students of the University, looking for ways to develop products deriving from the materials that were recycled by the cooperative, especially bottles of polyethylene tereftalate (PET). The starting point was the search of an aesthetics for the making of products that could increase the cooperative profitability, offering other possible uses for this material besides the simple compacting of the bottles and their subsequent selling by volume.

From 2007 on, this work was integrated to Incubator of Solidary Economical Enterprises of the university, called UNEB/UNITRABALHO – INCUBA<sup>2</sup>, that adopted the work methodology developed with the above-mentioned cooperative, reapplying it on the other assisted groups; this methodology follows Paulo Freire's method in the sense of taking the individual's universe (cooperated pickers and students) as the starting point, seeing the individual as the subject of his own history and enabling him to see his world with his own eyes, with the objective of transforming it.

The use of the participatory approach was led in a way that the design students and cooperated pickers worked together in the search of solutions. The focus of the design project, as well as that of the creative process itself, was the local identity as reference for the pieces and the spontaneous manipulation of the materials in the search of a new aesthetics for the jewels made of PET. Some results of this development are shown in the Figure 2.

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<sup>1</sup> The experiment is developed by one of the authors, Professor Doctor Ana Beatriz Simon Factum, in the subject "Development of Product Project III" in the Industrial Design graduation course at the State University of Bahia - UNEB, at Campus I in Salvador - Bahia. The members of the cooperatives participated just as if they were regular graduation students, in the whole process, along the semester, with the same rights and duties of the graduate students in equalitarian conditions.

<sup>2</sup> INCUBA is an extension project at the State University of Bahia - UNEB in a partnership with UNITRABALHO that gathered projects in consultantship development and popular cooperatives follow-up by their professors but lacked technical, administrative and financial support that could enable the potentialization of their performance, as well as the need to articulate the actions to the production of the knowledge in the stricto sensu post-graduation programs. The team is formed by professors, technicians, graduation and masters' degree students, having a total number of 26 people from the areas of Pedagogy, Design, Communications, Sociology, Accounting Sciences, Sustainable Local Development and Chemistry, among others.



Figure 2 - Example of aesthetic explorations developed for the jewels design with the use of recycled PET bottles (SOUZA & FACTUM, 2009).

Another example of aesthetics generation starting from the team work of design students together with the cooperative members is the production of jewels developed with the use of recycled copper threads. The design project, called "Discovering the copper", was accomplished by students Geórgia Nunes and Luma Magalhães, in collaboration with the members of the artisans' cooperative called "Mãos Que Ousam"[Daring Hands], located in the neighborhood of Cajazeiras, in Salvador. The work material was collected from the streets by the cooperative called "Cooperativa Juventude Ativista de Cajazeiras" (JACA), that aims to generate work and income from the meta-recycling of electronic garbage and also for the digital inclusion of the community young residents.

The project "Discovering the copper" takes off from the search of new aesthetic possibilities for pieces and products that can be made of the so-called electronic garbage, produced from the discarding of tv sets, computers, mobile phones and other equipment that contain pollutant substances that offer risk to the human health, as lead, mercury, beryl and cadmium, generating added value to the recycled materials, thus benefiting not only for the population that will acquire the product, but also the future of the planet. In face of the several sub-products deriving from the electronic garbage, the students and members of cooperatives chose to develop objects with the use of the copper threads from the electronic equipments. Some results of the aesthetic explorations of the recycled copper threads are shown in Figure 3.



Figure 3 - Examples of aesthetic explorations developed for the design of jewels with the use of recycled copper threads (MAGALHÃES & NUNES, 2010).

Following the same idea of recycling materials coming from the electronic garbage, another design graduation student, Paulo Alves, chose to develop products starting from parts that neither would have a destination for the computer science industry nor would have a significant commercial value. The studied part was the power source of computer

CPUs; once burned, these sources became unusable, due to their high maintenance or reconditioning cost. Then, the source was disassembled and its individual parts were analyzed, looking for new possibilities and formal configurations that could lead to a new product for commercialization. This was how project "Ventu" came to life, using the recycled fans from those power sources, and re-assembling them in a way to create a two-speed table fan for individual use, addressing the office supply market or workstations shaped as cells or cubicles. An important piece of data found in the product project was the low power consumption of "Ventu", it consumes only about 15% of the necessary power to operate the smallest fan models available in the market. They would have a significant commercial value. Figure 4 shows the final configuration established for Ventu, as well as the parts coming from the meta-recycling of electronic garbage.



Figure 5 - An example of aesthetic explorations developed for the design of objects using material coming from the electronic garbage (ALVES, 2010).

## 5. Final Considerations

In a country like Brazil, where the poverty and social exclusion rates are high, the environmental and social responsibility are at the same level of importance, therefore, it is necessary to incorporate the project actions to the social reality that surrounds us.

The interrelations between designers and other non-academic actors, based on principles of cooperation and of communities pondering; and their cultural values can reach new levels of creativity and aesthetics, in a way to develop productive processes and to produce knowledge that goes beyond the current scientific paradigm.

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