

Design Education Against Exclusion: from Coopamare to Camapet

A. Simon¹, C. Loschiavo²

¹University of São Paulo, Student at the Doctor's Degree Program
Faculty of Architecture and Urbanism
Professor of Design at the University of The State of Bahia

²University of São Paulo
Associate Professor at School of Faculty of Architecture and Urbanism

Abstract

The objective of this article is to present the results of the use of the paradigm of the popular education based on Paulo Freire's work in the teaching of design. That initiative takes into account the pedagogic experience accomplished by one of the authors, teaching of an elective discipline at the Faculty of Architecture and Urbanism of the University of São Paulo, that it is supplied in a partnership with COOPAMARE. This experience defined a corpus of knowledge within the design field and also the pedagogic strategies for the work with the re-using of materials and products and the promotion of the social inclusion of the street collectors. Under the perspective of the praxis pedagogy, students of the college subject called Product Project Development III, from the Baccalaureate Course in Industrial Design of the State of Bahia University and a group of young organized street collectors of recycled material in the CAMAPET, they developed a technology of production of jewels with the re-use of the PET plastic bottles.

Keywords:

Design education, sustentability, social responsibility

1. INTRODUCTION

The objective of this article is to present the results of the use of the paradigm of the popular education based on Paulo Freire's work in the teaching of design. A theoretical model that contemplates the notion of learning starting from the subject's knowledge, the notion of teaching starting from words and generating themes, the education as a knowledge action and of social transformation, the politization of the education, etc. Practices that are constituted in democratization mechanisms, where the solidarity and reciprocity values and also new alternative ways of production and consumption are reflected.¹ In the words of Freire himself:²

"An education that is undressed of its alienated and alienating apparel can be a force of changes and liberation. Based on that, the choice would have to be also, between an 'education' for the 'domestication', for alienation, and an education for the freedom. An 'Education' for the object-man or another one for the subject-man".

Such experiment demands the transgression of traditional projecting methods as well as the choice of pedagogy that is compatible with the kind of process and the expected result.

The key question is re-think the role of the design (product, urban artifacts, communication system, etc.) as mediators of political and cultural conflicts or better design against exclusion, because in Brazil contemporary poverty has become worse with the alarming increasing of the urban population. The level of poverty means millions of people living in unbearable

conditions in cities, in high risk areas such as the banks of rivers, in "favelas", shanty towns, and slums, while there are thousands of abandoned street children, unacceptably low levels of public health provision, basic education, and violence against landless peasants and urban homelessness.

In this context, it is important to define a proper body of design knowledge, as well as the corresponding pedagogical strategies, which will allow students to cross class boundaries in order to achieve the development and evaluation of socially responsible products, as well as a re-conceptualization of design practice and education.

What roles designers and design plays in resolving or exacerbating social, political or economics issues?

This pedagogical experience require a re-thinking of the knowing process, it is one alternative to the main paradigm of market-oriented product design education, that dominates design schools. The inclusion of particular forms of knowledge that been ignored by the traditional design curriculum.

2. FROM COOPAMARE TO CAMAPET

That initiative takes into account the pedagogic experience accomplished by one of the authors³ of that work in the Faculty of Architecture and Urbanism of the University of São Paulo. It is the teaching of an elective discipline that it is supplied in a partnership with COOPAMARE - the Cooperative of Autonomous Street Collectors of Paper, Wood and other Recyclable Materials, from the city of São Paulo, SP, Brazil (see Figure 1). This experience defined a corpus of knowledge within the design field and also the pedagogic strategies for the work with the re-using of materials and

[1] Gadotti, Moacir. Desafios para a era do conhecimento. Available at: <http://www.estadao.com.br/ext/educacao/desafio.htm>. Accessed on 21/04/2006.

[2] FREIRE, Paulo. Educação como prática da liberdade [Education as a practice of freedom]. Rio de Janeiro: Paz e Terra, 2000. p. 44.

[3] Santos, Maria Cecília Loschiavo dos. Associate Professor at School of Architecture and Urban Planning, University of São Paulo; e-mail: clschia@usp.br.

products and the promotion of the social inclusion of the street collectors.



Figure 1: View of Coopamare – discarded products and materials to be selected

The main aspects of methodology to respond to the focal questions of the course and to clarify what is the role and responsibility of designers in these extraordinary times Brazil is facing, in order to overcome poverty, hunger, and social-spatial exclusion was a combination of tools of design history with aspects of cultural and critical education, based on Paulo Freire's work.⁴

We have worked with Freire's idea that in today's global society education can not be indifferent to the reproduction of dominant ideologies. He argues against "progressive liberalism" and its passive acceptance of an unequal world, where unemployment, hunger and homelessness coexist with opulence. Students have demonstrated that the creative practice of design can be employed to improve social justice, as well as can promote difference and tolerance and create spaces for audiences to share their values during times of conflict.⁵

The course made possible the confrontation and comparison of the knowledge of the students and the collectors, and how the transformation of both collectors' and students' actions in the process, required a re-thinking of the knowing process. This was illuminated by Paulo Freire's methodology and critical education concepts. Paulo Freire tells that:

"Knowing, whatever its level, is not the act by which a Subject transformed into an object docilely and passively accepts the contents others give or impose on him or her. Knowledge, on the contrary, necessitates the curious presence of subjects confronted with the world. It requires their transforming action on reality. It demands a constant searching. It implies invention and re-invention. In the learning process the only person who really learns is s/he who appropriates what is learned, who apprehends and thereby re-invents that learning; s/he who is able to apply the appropriate learning to concrete existential situations. On the other hand, the person who is filled by another with "contents" whose meaning s/he is

not aware of, which contradicts his or her way of being in the world, cannot learn because s/he is not challenged".⁶

The course was organized as a seminar, including lectures and studio work. Students were required to visit the place, to read the physical and social-cultural environment, perceive its characteristics, identify problems or potentialities, and suggest possible design solutions or interventions. A number of short assignments were given to the students, which involved observation, documentation, analysis and critical interpretation. Upon completion of these assignments, the students presented their work in class and in the cooperative, and as a final assignment students presented a public exhibition of their work right in the area that was studied.

The other author⁷ participated in the educational experience on design for social responsibility conducted at the University of Sao Paulo, Brazil, during 2003. Teaching and learning, in the same time, because she's doctoral student, under the supervision of Ph.D. Professor Maria Cecília Loschiavo dos Santos. The course in the year 2003, students⁸ have presented a variety of projects, such as: proposing different solutions in terms of design, including work apparatus, manufacturing of basic uniforms, t-shirts and caps, communication system and identity re-design (Figure 2), web design of internet sites publicizing the cooperative activities, design of vehicles for waste collection and management, recycling bins to create a transition zone between the local community and the cooperative, where both can meet and better know each other, so that the social conflicts will diminish, wooden wagon PET cover (Figure 3), design of a recycling factory, tetra pack and cardboard recycled boards, as well as some devices for collectors resting using reused tires (Figure 4).



Figure 2: Identity Re-design

[4] Santos, Maria Cecília Loschiavo dos. Design for Social Responsibility: Perspectives on students work. Available at: http://www.verhaag.net/ead06/fu/lpapers/ead06_id287_3.doc. Accessed on 4/04/2006.

[5] See note 4.

[6] FREIRE, Paulo. Extension or communication. In. Education for critical consciousness. New York, Continuum, p.100-101.

[7] Factum, Ana Beatriz Simon. Student at the Doctor's Degree Program at the Faculty of Architecture and Urbanism at the University of São Paulo, Brazil and Professor of Design at the University of The State of Bahia, Brazil.

[8] Students that participated in 2003 course - Miranda, C.; Almeida, C.; Bracale, C.; Arruda, D.; Enoki, E.; Umakoshi, E.; Moraes, F.; Vargas, F.; Nagamatsu, F.; Ishyama, G.; Chammas, L.; Cara, M.; Vassao, P.; Moraes, R.; Kanayama, S.; Bortolato, T.; Carvalho, T.; Leonelli, C.; Ihara, E.; Cavalcante, L.; Endo, L.; Peres, A.

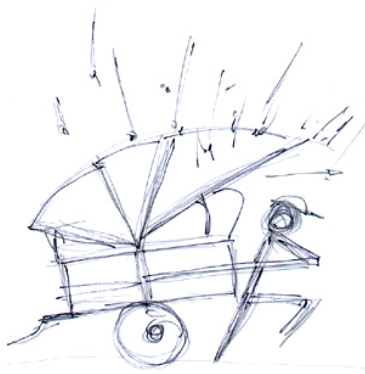


Figure 3: Wagon PET Cover

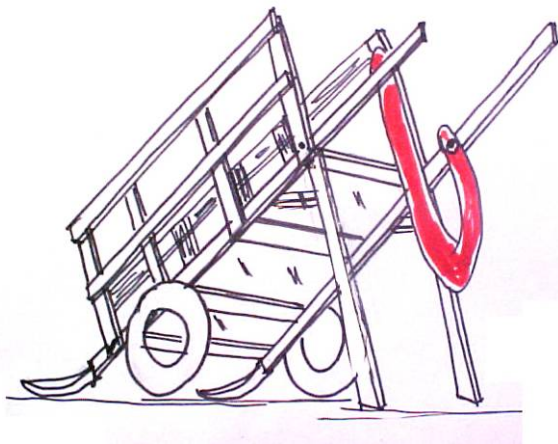


Figure 4: Collectors Resting Device

The discipline AUP 473 “Design of Urban Artifacts: focusing on the social-spatial inclusion” continues in 2004 and 2005 and the different projects presented by undergraduate students, ranging from urban artifacts that could minimize the conflict between a recycling cooperative and its neighborhood, in order to facilitate their relationship, to the recycler work apparatus.

Another experience happened in 2005, based on the knowledge built in the discipline AUP 473 and under the same perspective of the praxis pedagogy, students⁹ of the college subject called Product Project Development III, from the Baccalaureate Course in Industrial Design of UNEB - the State of Bahia University - and a group of young organized street collectors of recycled material in the Cooperative of Selective Collection, Processing of Plastic and Environmental Protection – CAMAPET (see figures 5 and 6), using as reference the production process of traditional jewels (made of precious metals and gems), they developed a technology of production of jewels with the re-usage of the PET plastic bottles (see figures 7 to 14).

The transformation of garbage into a design object makes us rethink the category of value located into trash. For a long time, trash was considered something that has no value, as a worthless material, but due to many factors, over the last decade, the reuse of trash became one of the main features of our time, its presence ranges

from the urban environment to a piece of jewelry. The works presented here share this new aesthetic of reuse, and second-hand, they invite us for a terrific opportunity of feeling a sense that all materials are mutable and mutant as well as that the notion of trash management is a design process, which can enhance our capacity to exploit whatever value that remains in discarded products and materials.



Figure 5: UNEB design students visiting CAMAPET



Figure 6: The course having the participation of 4¹⁰ young street collectors of recycled material.



PET bottles in several colors and shapes

Figure 7: The best PET bottles are selected

[9] Ribeiro, A.; Carvalho, A.; Brandão, A.; Salmon, B.; Muniz, C.; Tavares, C.; Ribeiro, D.; Lima, F.; Oliveira, G.; Neves, I.; Barbosa, L.; Santos, M.; Xavier, M.; Santana, M.; Moraes, M.; Farias, P.; Jesus, T..

[10] Souza, A. ; Santos, J.; Santana, G.; Costa, V..



Figure 8: PET bottle deconstruction



Figure 9: Deconstructing the PET bottle by student Marcelo Sancho.

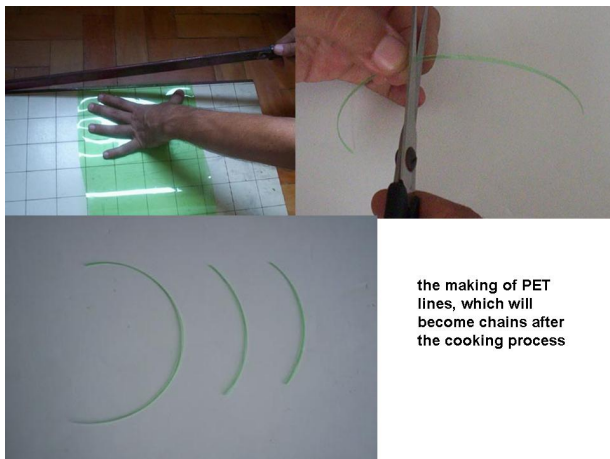


Figure 10: Making line's PET which will become links of chain after the cooking process.



Figure 11: Making links of chain – cooking PET lines in hot water.



Figure 12: Jewel's assembly



Figure 13: PET necklaces



Figure 14: Others kind of PET necklaces

Paulo Freire's method was adopted as the strategy for overcoming the exclusion of the involved subjects, to work with each other, and for the reality of the students of a peripheral area of a peripheral country and also the one of those young street collectors from the same area and country, residents of an area of Salvador (the capital of the state of Bahia) called the Itapagipe Peninsula, one of the largest areas of poverty of the city, both invisible to the models of eurocentric character.

This experiment was the project development focused on sustainability, having the group of students experience the power of design in generating ideas, planning, making projects and products that could be an example and a reason of how we should live according to the sustainability proposal defined by Margolin.¹¹

However, when teaching Design in third world countries, it is necessary to consider the ideas of Maldonado¹², who says, "...in the third world countries where manufacturing industry is totally or partially absent, the argument for industrial design has a simply pragmatic meaning, at best." Thus, it is a task that must take the specific local characteristics into consideration: in our case, the city of Salvador, capital of the state of Bahia, also known as 'the Black Rome'¹³, for most of the local people are Afro-descendants.

The pillars that make the theoretical basis of this enterprise rely on the concept of the Design for the sustainability and social responsibility, that only happens through the interaction of technical, ecological, social, economical, cultural and political knowledge. With that in mind, the formation of a vast net of partners, that hold multiple forms of knowledge, becomes a must, having the feeling and notion of solidarity as the integrating link. The knowledge built up by the population of the city of Salvador, that survived for three hundred years within a slavocrat system was used, this population being the holder of a historical culture of re-using things, because, as slaves, the only thing one could possess was all that had been discarded, the garbage of the colonial society.

[11] MARGOLIN, Victor. Expansion or sustainability: two models of development. In MARGOLIN, Victor. *The politics of the artificial: essays on design and design studies*. Chicago and London: The University of Chicago Press, 2002, p.92-105.

[12] MALDONADO, Tomás. *El Diseño Industrial Reconsiderado*. 3ª Ed. México: G. Gilli, 1993.

[13] This is an expression from a song called "Reconvexo", written by Brazilian songwriter and singer Caetano Veloso.

Since the 1970s, the population of Salvador has been in a process of saving and reassuring the Afro-Brazilian culture, which has been repressed over a century. Its values have been recovered in an accelerated process of bringing up awareness and self esteem, radically changing the cultural atmosphere of the city. The best example of this cultural reassuring is what we call "Axé-Music"¹⁴, a very successful enterprise that has been on top of the media.

Together with the conditions mentioned above, the project methodology called interaction design was also adopted, where nothing is imposed, everything is proposed. It was chosen both for the most specific processes of designing, as for the integration of the involved communities - the university students and the street collectors - interacting in total equality conditions in all the stages of the process, the conception, the execution and the evaluation, making it possible to provide freedom to all the people involved in the process.

The main objective of this study is the promotion of job generation and income for the young street collectors and their families through the design focused on the sustainability and in the social responsibility, within the context of the solidary economy, of cooperation and of solidarity, establishing an example of alternative ways of social development. This can be unfolded into several more specific aims, such as:

1. Implanting a jewel components plant by re-using the empty PET bottles in a street collectors' cooperative.
2. Creating a new technology of production of objects for body decoration, through the appropriation of the vernacular solutions.
3. Promoting the design culture as a means of overcoming the social exclusion.
4. Providing chances to the students of Industrial Design of UNEB to live new practices and project attitudes, mainly addressed to solve the urgent problems of the country.
5. Developing the artistic expression and the awakening of professional vocations in young men and women who do not have opportunities for a quality education.
6. Contributing to the survival of CAMAPET, through the production of more profitable goods, diversifying the activity of re-using of the collected material.
7. Creating opportunities for the inclusion of the families of these street collectors in the process of having a survival with dignity, integrating them into the activities of the collectors.
8. Publishing the capacity of design to generate proposals, to plan and to accomplish projects and products that can serve as demonstration, argument and contribution to the sustainability of the planet.
9. Minimizing the current prejudice in relation to the garbage, creating awareness in relation to the consumption, to the discarding and to the current collection forms and recycling processes.

The knowledge produced collectively was submitted to the Edict number 18/2005 of CNPq [The National Council of Research] and thus, it was selected to receive financial aid. The factory of jewels made with the re-usage of the PET plastic bottles is in its implantation stage to provide CAMAPET a larger viability guarantee in a way that the families of the street collectors can

[14] MAGNAVITA, Pasqualino. Axé Architecture: A Pós-Modernidade na "Roma Negra". AU, n. 60, junho/julho, 1995. p.82

generate complementing income and in doing so, they will be able to improve on their survival strategies. It is our hope that this pilot project can serve as a good example of a sustainable development way and it is also our wish that it can have a multiplying effect, motivating the implantation of new enterprises of this nature.

3. THE MAIN FINDINGS

In these courses we began with the challenging situation of designing out of the mainstream agenda of design, as well as far away from the marketization of design education paradigms¹⁵. We have renewed a commitment to a critical design education process that is fundamental to the contemporary situation, and that was able to present an alternative design practice.

At this point, once again, Freire's concept of thinking critically has enlightened us, because, according to him conscientization [*conscientização*] is not considered as an end in itself, but is always joined by a meaningful praxis, which means that critical pedagogy concretely links theory and practice.

Within this context, the paper explores design knowledge production not as a form of knowledge transmission, but as a form of cultural politics, that can happen anywhere, both inside and outside the academy, not just in classroom or studios, but in any other places where people can congregate to share knowledge and share learning, on the basis of a problem-solving approach in order to creatively improve the quality of life of the populations in need. This not only challenges disciplinary boundaries, but also the institutional borders that shape design education, as well as re-defining the role of design education and the role of the public teacher as a cultural worker. Hence, in Brazil, questions regarding design education cannot be removed from issues such as homelessness, poverty, cardboard collectors, and environmental decay.

This experience provides a good chance for students both from USP and UNEB to reconsider their own identities and values, contributing to the understanding of the main aspects of the local design, blooming for a new project and professional attitude, by abandoning the model of the industrialized production of the first world and using the productive processes of the vernacular design, which, in its worst case scenario, will always provoke much less intense impact to the environment, comparatively. It is our hope and expectation that they will be able to address their professional performance to solve the urgent issues of our country, abandoning an image of design that has been vulgarized by the media, considered dismissible for being in the service of the excessive and frivolous consumerism.

At the University of São Paulo, students enrolled in the course discussed here, were highly interested in the inclusion of particular forms of knowledge that have been ignored by the traditional design curriculum, and they are enthusiastically committed to a critical practice of design, thus enhancing their interpretations of the social and material world. The various meetings with the collectors brought out the issue of voices and sources of knowledge about design, raising the following questions; Whose design of history are we addressing. Whose

history are we talking about? For whom are we designing? These questions raised another crucial aspect, how does the interaction with diverse cultural identities impact on the methods and objectives for which design students are designing?

These questions reinforce the need to support and implement educational programs on social design in Third World countries, in order to shift the educational paradigms of design education: from serving only the needs of market oriented suppliers and affluent consumers, to the needs of local native populations.

All the involved people and the society in general will be able to check the power of Design to generate new proposals, to plan and to accomplish projects and products that can serve as a demonstration and as an argument of the way one should live.

[15] An important analysis of marketization of design education and neoliberalism in New Zealand is a work in progress conducted by Amanda Bill. At The University of Auckland.