

Spontaneous design, informal recycling and everyday life in postindustrial metropolis

The main objective of this paper is to acknowledge and discuss design issues beyond the conventional. To look at the spontaneous design created by non-designers, mainly by homeless people, street vendors as well street performists, and the informal recycling process present in the postindustrial metropolis, and in so doing make them more visible. Some products, artifacts and shelters created by homeless people and street vendors will be subject of this paper. The subject is approached from an interdisciplinary perspective that combines design studies with other disciplines concerned to the issue.

INTRODUCTION

The title of this paper describes its contents. It suggests ways of thinking about the spontaneous design, poverty and everyday life in postindustrial metropolis. For postindustrial metropolis I am using here Manzini's concept: "global village", extended across the planet, whose characteristics are conspicuously marked by the diffuse and profound impact of new technologies" (Manzini, 1995). The paper seeks to understand the question of disposable products and materials, its reuse and its impact in the urban context. There is an informal economy connected to the reuse of waste in postindustrial metropolis and the variety of reuse has created a new culture of materials and a new culture of the public space. I have previously tried to explain this phenomenon (e.g. Loschiavo dos Santos, 1999a, 1999b, 1999c, 1999d). I approach the subject from an interdisciplinary perspective, which requires the combination of many and varied data, and concepts from design and all disciplines concerned with the subject. The result is that this approach provides one very useful point of entry into the study of the relationships between design, poverty and the urban environment.

In this article there are some images selected from my ongoing research in Los Angeles, São Paulo and Tokyo (1995-1999) they create a visual dialogue offering multiple interpretations of homeless' material culture and informal recycling system. The juxtaposed images of interior and exterior illustrate the differences among the great variety of recycling and transformation of mass-produced objects.

The degraded objects rest on the city streets, as garbage of the technological and industrialized culture. They have transformed the streets and the open spaces of the metropolis in a true receptacle of surpassed products, in a paleotechnical jungle.

The unceasing search for material strategies of survival brought to poor people, to the homeless a possibility of exhuming these dead products attributing to them other definitions and constructing a new materiality on their part. This materiality has its own identity and its spontaneous design.

THE FRAMEWORK

The framework which this paper proposes for the discussion of spontaneous design, informal recycling and everyday life consists of the following aspects:

1. What is the spontaneous design by the homeless?
2. Why the spontaneous design by the homeless and deprived people should be studied?
3. What benefit could come from studying the homeless spontaneous design?
4. How many lives products and materials have?
5. How to classify the informal recycling process?

What is the spontaneous design by the homeless?

This question is really concerned with a clear definition of the domain, which is a very first step to understand the issue. The specialized professional character of design has become so well clear in the cult of designer products and in the vast literature that documents its history. But, beyond this definition there is another sense of design practiced in a spontaneous basis by deprived people and homeless people in order to survive. It is not the celebration of designers as stars, but it is, to some extent, the celebration of the human ability to design under extremely difficult situation.

The product of the spontaneous design is very present and visible on the streets in urban centers throughout the world, it is completely integrated in our daily life. Small cars, pushcarts and wooden wagon for collecting discarded products and materials, pushcarts which are used for vending goods as well the homeless paper or plastic makeshift habitats built on the streets have left their mark on the visual topography of the urban landscape.

Spontaneous design is a creative practice of finding working solutions applicable to solve concrete problems, in a context of severe lack of resources. It is a counter design driven exclusively by the vital need for survival. Within this meaning, spontaneous design is pretty much connected to what Victor Papanek (Papanek, 1987) wrote about Eskimo design: "(...) to folk living in a more primitive level, survival is close at hand. It has the immediacy of essentials: food, clothing, shelter against the elements, and tools for fishing, hunting, protection or defensive/offensive action against wild beasts and too often other men. (...) Eskimo survival is all these things, but under even more restrictive conditions". Homeless' material culture is built under a similar difficult circumstances, but in a public space. It is no longer a matter of protection against wild beasts, but urban ones.

Why the spontaneous design by the homeless and deprived people should be studied?

The study of spontaneous design began because of a fascination with the issue, but this is not enough to explain an academic research and we need to move on to other reasons, going from fascination to rationalization. One of the very first reason to study spontaneous design is in order to learn from it. In Brazil, spontaneous design provides a tremendous amount of information about our material culture, it is a kind of a living laboratory of creativity. We can acquire a vast repertoire of possibilities regarding the reuse of materials and the creative transformation of mass-produced objects. We can learn how the spontaneous design expresses cultural identity and the nature of its relationship with the urban environment. Also, learning is related to processes of obtaining and excavating materials and products. Lessons are also about the ways design and public spaces are related. More general lessons include the opportunity to rethink about the wasteful culture of our consumerist society (Loschiavo dos Santos, 1999c)

What benefit could come from studying the homeless spontaneous design?

The spontaneous design and the material survival strategies by deprived people and the homeless have had a tremendous impact on urban centers and they have restructured public space through the re-organization of the disposable. Is it a new urban culture and society? This phenomenon is very important in the whole transformation process of the contemporary public space and it created a new way of making design and living the city.

The study of the material culture by the homeless in the urban centers will bring a better understanding on the ways and survival strategies homeless people created to shelter themselves. This study offers an indispensable point of view for the urban design culture and the contemporary urban metamorphosis knowledge (Loschiavo dos Santos, 1999a).

Sociological and anthropological approaches are no longer enough to describe and analyze the role of spontaneous design in the contemporary urban dynamics. We have to take in consideration the spontaneous design from a design point of view, which will provide proper tools to understand how the informal recycling system of the residue of production and consumption works. From a design perspective it is possible to explore how the reclaimed objects are reused in any other economy and reenvisioned in ways that are completely different from their original designed purpose.

How many lives products and materials have?

In the heart of the urban metamorphosis of postindustrial metropolis, the reuse of products and materials as well the informal recycling is a meaningful aspect of a new culture. Thus, everyday life gives us many lessons about a spontaneous design and informal recycling, in a broad sense of material culture connected to the fulfillment of vital needs. It is a living design and recycling process with a prodigious sense of diversity and creativity. An impressive panorama of them is exposed on the streets of urban centers and they vary from region to region, from country to country according to cultures, peoples, climate, environment and available.

The growing rates of unemployment and the urban poverty are increasing dramatically throughout the world and they cause the emergence of cultures of unemployment, like the cultures of street vendors and the cultures of homeless people and other informal labors that have been performed mainly in public space. The main aspect of this culture is the spontaneous design, the creative transformation of mass-produced objects and the informal recycling process.

Defunct, defuntus, de-functus, disfunctionalized, the rejected objects and packaging rest on city streets, the waste of our throwaway societies. Homeless people, street vendors and informal labors exhuming the dead products constructing a new materiality for the detritus. Materials and products can reappear in unexpected ways, forcing us to reorder our think as well giving us the opportunity to ask about the use and the reuse of the detritus according to their coherence and effectiveness.

The huge numbers of homeless communities living on streets, street vendors as well informal labors or street performists reuse found materials and packaging to create their shelters and their work tools. There is an art of survival on their part.

Abandoned objects provide some survival opportunities and protection to neglected lives. It is another order of things, which emerges on the other side of the current era. In their unceasing search for material strategies of survival, the homeless and the street vendors exhume these dead products, recycle them in an informal basis and come to attribute to them other definitions, constructing a new materiality on their part. As they do this, material boundaries have become blurred.

The extension of reuse is considerable in these cultures made up of a wide variety of discarded products and materials, the homeless and the street vendors traverse the city and materials boundaries, dissolving some sacred paradigms of the urban space and the functionality of product and material that we have taken for granted. They engage themselves in informal recycling or trash picking salvaging discarded products and materials for work-related and shelter-related applications or other imaginative uses.

The informal recycling and the spontaneous design have been created mainly in public spaces and they capture the popular imagination and invite to prompt responses and comments by the passerby.

The main materials that are reused in the spontaneous design and informal recycling are: cardboard, plastic, wooden fruit cases, foam, fabrics, plastics, wire, white paper, newspaper, magazines, cardboard, aluminum, supermarket carts, wagons, furniture, sleeping bags and carpeting and so on.

Plastic is one of the main resource materials for building the tent houses, the blue plastic condominiums in Skid Row, Los Angeles, in downtown São Paulo or alongside Sumida River, Tokyo. Due to its physical properties, resilience, versatility, flexibility, imperviousness, resistance, and durability, plastic plays various roles in the daily life of the homeless, street vendors as well informal workers and it meets their practical needs. The flexibility of plastic is suitable to any usage. It also makes possible the materialization of thermal protection and the body's insulation for the homeless. Especially during the wet and cold season, plastic provides the homeless, street vendors and informal labors protection from rain and wind. Plastic bags are the main receptacle used as storage for personal belongings, food and clothing, as well as for storing other excavated materials.

It is important to stress how the aesthetics of plastics have changed in the XX century. A couple of years ago it was proclaimed that nothing made from plastics could be beautiful as the material was lifeless (Black, 1983), but the plastic industry proved exactly the opposite and our century was called Synthetic Century (Fenichel, 1996) and plastic has become a very cheap material and is everywhere: from home to office, from our bodies to our cities. It is a very disposable material which lends itself to a huge level of exhumation and reusability by the homeless.

Another ever-present material collected by the homeless in this excavation process and resold to warehouses for recycling are aluminum beer and soda cans. In some cases, a homeless person who is talented and able, takes advantage of these materials to produce artistic objects, including jewelry and toy planes and helicopters which are then sold on the sidewalk.

Cardboard is a construction material important in the daily routine of the homeless used to build "shacks" in alleys, underneath building marquise, in entrances to buildings and under bridges and freeways. In certain areas of the cities, there are true condominiums of cardboard boxes where this material is utilized in combination with other types of materials. Along with the can collector, the figure of the homeless cardboard collector has already become traditional in Brazil's daily urban life as well as that of the U.S.

Furniture, particularly benches, chairs and sofas rescued from the trash are important elements of the informal habitat of the homeless. The homeless reuse either the whole product or part of it. Some design archetypes are partially on streets among blankets, mattresses and various types of leftovers composing the informal habitat. Frequently on city streets, we see chair seats and legs in truncated form, detached from their usual and functional references. In this context, the classics have been decontextualized and desanctified, having lost their glamour, mystique and desirability.

How to classify the informal recycling process?

In this session I will briefly survey and review the principal practices and ways of informal recycling process by homeless and deprived people. I have documented particular context of spontaneous design and informal recycling, in Tokyo, Los Angeles and São Paulo, that demonstrate how cast-off products, objects, materials and informal recycled objects are rendered meaningful as living means through the daily experience of those who make and experience them in the public space.

The informal habitats complexes have been documented in their contexts, where pragmatic and vital concerns blend and overlap with creative impulses. The images exemplify the diverse ways of reusing materials, mainly plastic and cardboard, according to different functions. The informal recycling process can be classified according to materials reused and functions.

The blue plastic encampment is one of the main resource material for building the informal habitats in Los Angeles, São Paulo and Tokyo. It is present, for example, along the banks of Sumida River (figure 1), in parks as, Shinjuku Central Park or Ueno Park, in Tokyo. Blue plastic is an important feature of down town condominium at Skid Row, Los Angeles (figure 2). Green plastic, was reused in an informal habitat built by a homeless community in São Paulo (figure 3) and white plastic qualities are considered much better than the other ones. The blue plastic was used to create the “living package”, in Sumidagawa, Tokyo. According to a Japanese homeless man, the white plastic has more resistance and durability and brings light inside the shelter.

Cardboard is a vitally important construction material used on a daily basis by the homeless. There was a cardboard village under the Shinjuku Station (figure 4). It was the Tokyo’s largest concentration of homeless people. Many of the cardboard dwelling had been painted by artists. In Tokyo, the homeless community is used to build cardboard shelter-box in walkways of certain areas. In Los Angeles, a similar technique was used to create a telescoped conjoining of cardboard shelter-box (figure 5). In São Paulo, sometimes cardboard shelter-box are turned into a crib to street children, deprived from a normal infancy (figure 6) or plugged in the urban built environment

Moving homes (figure 7) and working bikes, pushcarts and wooden wagon (figure 8) and many other vehicles are always noticed crossing the streets of the postindustrial metropolis (figure 9, 10, 11). Some of their drivers scrutinize dumpsters, in a unceasing search for salvageable items. These carts have a special design, a few paper collectors paint or arrange distinctive marks for positive identification in case of theft. A few cardboard collectors hang the name of the cardboard collectors cooperative.

I am sure these images lead easily to lessons not only about spontaneous design, informal recycling, cultural identity, but they provide an additional reason why spontaneous design should be studied as the most urgent political project of our contemporary societies .

CONCLUSION

This phenomenon raises a critical question: What does design have to do with poverty and homelessness? How designers can contribute to develop material strategies to rethink poverty and homelessness in urban centers? And how contemporary design practices have integrated the poor aesthetics? What is important to be considered is that the raw materials from which the spontaneous design is made is a design product. Spontaneous design brings us a possibility of a radical questioning about the productive chain: from the product to the waste, or as a homeless black woman told me on a quiet morning in July 1998: “I follow the material to one of its end”. In a very simple manner she approached the ecological and social responsibility of design and designers. They have to anticipate the final destiny of products and materials, specially in a world where everything seems to be already designed and created, and in this world designers must intervene.

Spontaneous design brings us a reflexive attitude relating to the role of design and design culture in contemporary societies. Also, the spontaneous design brings us the opportunity to rethink the role of object in the present stage of industrialization, the meaning of product obsolescence, the concepts of useful and useless products, the concept of function and malfunction (Franco Pereira and Loschiavo dos Santos, 1999).

This is an ongoing research, I am not in a position to offer responses, but I can share my own experience in collecting data, materials and interviews, that taught me about the contemporary transformation of design products and matter into considerable living strategies. The most important thing it seems to me, is to realize that spontaneous design and informal recycling bring life to city, they are powerful elements that materialize a radical practice of design questioning and cultural resistance. Above all, it is essential to consider the study of spontaneous design as being part of a larger endeavor. It is a mistake to study it in isolation, by itself or for itself, what could lead to a process of poverty aestheticization. The study of spontaneous design and informal design in postindustrial metropolis needs to be structured in conjunction to other fields, in order to contribute to the development of generalization about the urban environment of contemporary society.

Manzini's work treated extensively about the transformation of matter and the implications of environmental limitations in daily life of contemporary society. In his essay Prometheus of Everyday he urged designers, producers and consumers, to rethink the products life cycle and he argued that this process also " (...) demands a new aesthetics that attributes worth to materials and products that in some way are able to embody vestiges of their earlier existences". Certainly, the homeless and deprived people discovered the several lives of products and materials and perhaps they are creating this new aesthetics, new ways of reusing objects and living the city.

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REFERENCES

- BLACK, Misha. **The Black Papers on Design**. Oxford: Pergamon Press, 1983.
- DECAMP, David. **Cart Names in Jamaica**. Journal of the American Name Society 7(1960):1, 15-23.
- FENICHEL, Stephen. **Plastic**. The Making of a Synthetic Century. New York: Harper Collins Publishers, 1996.
- JEUDY, Henri-Pierre. **Les usages sociaux de l'art**. Paris: Circe, 1999.
- LOSCHIAVO DOS SANTOS, Maria C. (1999a). **Discarded Products, Design and Homelessness in Global Cities**. In L. Nystrom and C. Fudge (Eds.) City and Culture. Cultural Processes and Urban Sustainability. Karlskrona: The Swedish Urban Environment Council, 261- 269, 1999.
- LOSCHIAVO DOS SANTOS, Maria C. (1999b) **The Vital Package**. Discarded Products, Design and Homelessness in Global Cities: São Paulo, Los Angeles and Tokyo. Estudos em Design 7(1999):2, 41- 53.
- LOSCHIAVO DOS SANTOS, Maria C. (1999c) **Makeshift Houses in Tokyo Metropolitan Area**. Shelter-less. News of Resource Center for Homeless Human Rights 2(1999):2, 3-12.
- LOSCHIAVO DOS SANTOS, Maria.C. (1999d) **Castoff/Outcast: Living on the Street**. In T. Correl and P. Polk (Eds.) The Cast-off Recast. Recycling and the creative Transformation of Mass-Produced Objects. Los Angeles: UCLA Fowler Museum of Cultural History, 111-139., 1999.
- LOSCHIAVO DOS SANTOS, Maria.C. and Franco Pereira, Andrea.. **Packaging: Function, Re-function and Malfunction**. From Consumer Society to the Homeless Material Culture. In H.Yoshikawa et al.(Eds.) Proceedings First International Symposium on Environmentally Conscious Design and Inverse Manufacturing . Los Alamitos: Computer Society, 492-496, 1999.

MANZINI, Ezio. **The Ecology of the Artificial and the Designer's Responsibility**. In. Richard Buchanan and Victor Margolin (Ed.). *Discovering Design: Exploration in design studies*. Chicago: The University of Chicago Press, 219- 243, 1995.

Packard, Vance. *The Waste Makers*, London: Penguin Books, 1960.

PACEY, Philip. **'Anyone Designing Anything?'** Non-professional Designers and the History of Design. *Journal of Design History* 5(1992):3, 217-225.

PAPANEK, Victor. **The best designers in the world**. *Tools* 3(1987):3,10-12.

RAPOPORT, Amos. **A framework for studying vernacular design**. *Journal of Architectural and Planning Research* 16(1999):1, 52- 63.

RUDOLFSKY, Bernard. **Architecture without architects**. New York: Museum of Modern Art, 1964.

STRASSER, Susan. **Waste and Want**. A Social History of Trash. New York: Metropolitan Books, 1999.

WODICZKO, Krzysztof. **Critical Vehicles**. Writings, Projects, Interviews. Cambridge: MIT Press, 1999.

ILLUSTRATIONS

Figure 1 - Blue plastic encampment, Sumida River, Tokyo. Photograph by M. C. Loschiavo dos Santos, February 1999.

Figure 2 - Blue plastic shelters, Los Angeles, Skid Row. Photograph by Mario Barros, November 1995.

Figure 3 - Homeless community under a very basic green plastic shelter. Photograph by M. C. Loschiavo dos Santos, November 1997.

Figure 4 - Cardboard village (Danboru Mura), Shinjuku Station. Shinjuku, Tokyo. Photograph by Michiko Okano, November 1997.

Figure 5 - Cardboard tunnel, Broadway, Los Angeles. Photograph by M.C. Loschiavo dos Santos, February 1996.

Figure 6 - Cardboard crib, São Paulo. Photograph by Douglas Mansur, 1996.

Figure 7 - Mobile home, Ochano-mizu, Chioda-ku, Tokyo. Photograph by M.C. Loschiavo dos Santos.

Figure 8 - Cardboard collector pulling his wagon. This cardboard collector is member of the COPAMARE- Cooperativa de catadores de Papel e materiais Recicláveis. Pinheiros, São Paulo. Photograph by M. C. Loschiavo dos Santos, 1998.

Figure 9 - Cardboard collector pulling his wagon. Downtown São Paulo. Photograph by Douglas Mansur, December 1996.

Figure 10 - Homeless buggy, as it is called among them. Downtown, Los Angeles. Photograph by Deanna Cherry, May 1996.

Figure 11 - Working sound bike made by a street vendor. Salvador, Bahia,. Photograph by M.C. Loschiavo dos Santos, September 1997.