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OR A NEW DESIGN
CULTURE: MEETING
CULTURAL DIVERSITY AND
SOCIO-ENVIRONMENTAL
MEANINGS

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ABSTRACT

This article addresses the relationships between artificial world production and sociocultural and environmental issues trying to enrich the dialogue between professional/academic design and vernacular design. To this end, we worked with data from a PhD research in progress; this latter is based on ethnographic research techniques, and has documented practices and material expressions pertaining to farmer and fisherman communities in the Barra do Rio Mamanguape region, Paraíba state, Brazilian Northeast. This analysis focuses on reading of the meanings built into the practices repertoire and into the artifacts that would be relevant to the discussion about the design responsibilities toward sociocultural and environmental issues. We found a series of practices and their correlated meanings that can be the base for projects emphasizing sociocultural and environmental variables relevant to artificial world production.

KEYWORDS

Vernacular design. Design. Cultural diversity.
Environment

POR UNA NUEVA CULTURA DEL
DISEÑO: LA DIVERSIDAD
CULTURAL Y ENCUENTRO CON
LOS SENTIDOS SOCIALES Y
AMBIENTALES

RESUMEN

Este artículo analiza las relaciones entre la producción del mundo artificial y las cuestiones socioculturales y ambientales y es una reflexión que tiene por objetivo mejorar el diálogo entre los contextos de diseño profesional / académica y diseño vernáculo. Para eso, utilizamos los datos de una investigación doctoral en curso que, con la ayuda de técnicas de investigación etnográfica, documentó prácticas y expresiones materiales pertenecientes a las comunidades de pequeños agricultores y pescadores artesanales ubicados en la región de Río Mamanguape en el estado de Paraíba, en Nordeste del Brasil. Anclado en la teoría relacionada, el análisis se centró en la lectura de los sentidos construidos en el repertorio de prácticas y artefactos identificados, en busca de elementos relevantes para reflexionar sobre la responsabilidad del diseño en relación con las cuestiones ambientales y socio-culturales. Se constató que hay una serie de prácticas y significados relacionados con ellos, que pueden ser la base de proyectos que tienen como objetivo hacer hincapié en las variables socio-culturales y ambientales relacionados con la producción del mundo artificial.

PALABRAS CLAVE

Diseño vernáculo. Diseño. Diversidad cultural.
Medio ambiente

POR UMA NOVA CULTURA DE
DESIGN: DIVERSIDADE
CULTURAL E ENCONTRO
COM SENTIDOS
SOCIOAMBIENTAIS

RESUMO

Este artigo aborda relações entre a produção do mundo artificial e questões socioculturais e ambientais, e faz uma reflexão que busca valorizar o diálogo entre os contextos do design profissional/ acadêmico e do design vernacular. Para tanto, utilizamos dados de uma pesquisa de doutorado em andamento, que, com o auxílio de técnicas da pesquisa etnográfica, documentou práticas e expressões materiais pertencentes a comunidades de pequenos agricultores e pescadores artesanais, situadas na região da Barra do Rio Mamanguape, no estado da Paraíba, Nordeste brasileiro. Ancorada na teoria correlata, a análise se concentrou na leitura dos sentidos embutidos no repertório de práticas e nos próprios artefatos identificados, em busca de elementos pertinentes à reflexão sobre a responsabilidade do design em relação a questões socioculturais e ambientais. Constatou-se que há uma série de práticas e sentidos a elas relacionada, que podem servir de base para projetos que visem dar ênfase às variáveis socioculturais e ambientais atinentes à produção do mundo artificial.

RESUMO

Design vernacular. Design. Diversidade cultural. Meio ambiente.

INTRODUCTION

The notion that we are going through a transition towards new ways of thinking and acting due to an unsustainable lifestyle is widespread. These are times of anxiety and uncertainty. We have the choice of either rising to the challenge and try to embrace new values and practices aimed at a happier and sustainable life, or pass up the opportunity this crisis is offering us to participate in a fundamental creative effort to rethink the course of human kind and provide it with alternatives leading to better futures.

This article adopts the first perspective. It is an attempt to align with an epistemology that is a work in progress, based on a dialogue with cultural diversity and geared toward building integrative knowledge about the world and socioenvironmental issues that require urgent discussion.

Considering the close relationship between artificial world production and crucial contemporary problems, we recognize that design has a decisive cause to take up: strengthening the socioenvironmental meaning in both its culture and practices; to this end, the society values of consumption, which permeate the design activity, need to undergo a profound change.

Thus, we suggest a dialogue between design and specific cultural experiences built in different contexts of our urban and industrial world. We analyze artisanal production of artifacts in rural villages, and by artisanal fishermen in the Brazilian Northeast – both the production qualitative data and the collection of artifacts itself – and looked for practices and meanings that would point to a responsible and ethical attitude toward socioenvironmental aspects of artificial world production.

First, we present some of the interdisciplinary theory on the integrative epistemic trend on which are based the current discussions about the changes which are really consistent in our way of thinking and acting. We offer ideas of a number of authors on the appreciation of epistemic diversity, including related to design.

I DESIGN AND SOCIOENVIRONMENTAL ASPECTS

An artifact is something made or given shape by man, whereas objects are elements in which there is human interference and which are also found in nature (PROWN, 1982).

Material culture classically refers to a set of artifacts made and used within a given group or social context. In this repertoire are series of materialized human expressions such as artworks (paintings, drawings, sculptures, photos); leisure objects (books, toys, games, meals); ornaments (jewelry, clothes, tattoos); transformation in the landscape (architecture, urban planning, agriculture, mining); applied arts (furniture); and devices (machines, vehicles, implements) (PROWN, 1982).

We can also understand material culture as the “material exteriorization of ideas and concepts that can be decoded, or rather interpreted according to

their cultural context” (RIBEIRO, 1987, p. 15). This means that material culture represents the materialization of values, worldviews and lifestyles by using natural resources available, as well as knowledge and techniques conceived in certain cultural context.

According to Prown (1982), material culture objects can hold different kinds of values: material (depending on the availability of raw materials); utilitarian (determined by their utility); esthetic (related to their beauty and the emotion they evoke); spiritual (expressed in icons and cult objects); attitudes expressed before other men (for example, the construction of a fort), attitudes toward the world, for instance, the use of new, as opposed to reused or recycled, materials).

For Ribeiro (198), it is through a variety of objects that human groups take in their environment, using and leaving their marks on it; according to this anthropologist, material culture translates ecology, techno-economy, ideology and, thus, the lifestyle of traditional populations (RIBEIRO, 1986).

We can extend this notion onto other cultural contexts, such as urban and industrial societies, although the concept of material culture stems from Anthropology and is more usually applied to archeological and ethnological studies (DENIS, 1998).

In Western societies today, most artifacts and other systems produced by human beings to establish and occupy the world are connected with the design activity, more commonly linked to industrial production and based on academic knowledge.

Friedman (2002) defined design as a process that involves the creation of something new (or the reconfiguration of an existing object) with a purpose: meeting a need or transforming a less desirable situation into a preferable one.

Design is located among projectual activities that aim at materializing abstract and subjective ideas, i.e., taking them from the planning dimension into actual and autonomous existence (DENIS, 1998, p. 19).

However, the role of design is not limited to giving shape, functionality and symbolic meaning to its products. According to Durham (2004), culture and its elements are produced by men; nevertheless, they are also processes that involve men in a dynamics of cultural configuration and reconfiguration. Thus, material culture produced by design also plays a role in configuring and reconfiguring culture and, as a consequence, men.

Fry (2009, p.30) writes that “everything designed goes on designing”. Accordingly, the author highlights that design, besides foreshadowing operational and symbolic form and function of things, also conceives their plural destination in space and time. This means that design foresees whether its products will have a functional life cycle or not, or whether they will be beneficial or harmful to human kind, for example.

Design activity points to its legacy to future generations either through the material culture it produces or through its meanings, or the social environmental effects related to its products’ life cycle (PAPANÉK, 1995; DENIS, 1998; FRY, 2009; BONSIÉPE, 2012).

Design scholars (PAPANEK, 1995; MARGOLIN, 2002; WALKER, 2002; MCCOY, 2003; FRY, 2009; HARLAND & SANTOS, 2009; BONSIPE, 2012) have stressed how important it is to rethink this activity in order to redirecting it to more sustainable pathways, as design seems to be market-oriented, not aiming at meeting social needs, not concerned with its impact on ecosystems.

With his fundamental critique, Fry (2009) points to the contradiction between human attempts to adapt to the planet and the simultaneous depletion of possibilities and things on which we and other forms of life depend for our livelihood.

Papanek (1995) states that while design has been too focused on satisfying ephemeral wishes, human needs have been neglected. Those creations threaten society safety and health, due to the production of dangerous artifacts, waste of natural resources, accumulation of tons of residues from short-lived goods or the choice of polluting materials and production processes (PAPANEK, 2009).

Many authors base their criticism regarding methods of industrial design based on the prevalence of economical rationality. Political neutrality – which is designers' usual posture – overlooking ethical values and real social needs are also criticized by various scholars (PAPANEK, 1995; MARGOLIN, 2002; WALKER, 2002; MCCOY, 2003; FRY, 2009; HARLAND & SANTOS, 2009; BONSIPE, 2012).

The materialization of artifacts occurs in many phases of a complex cycle known as product lifecycle (PAPANEK, 1995; KAZAZIAN, 1995; MARLET, 2005; MANZINI & VEZZOLI, 2008). This begins with the project and continues throughout many steps, each one with its specific socioenvironmental interactions and effects. Design combines material choice and processing, production, product distribution, use by consumers, and final waste disposal or product reinsertion into the productive chain, by recycling, reusing, energy cogeneration, etc.

Besides more tangible aspects, it is also necessary to discuss a less concrete dimension relevant to the production of the material world through design. This more abstract level is associated with: symbolic messages expressed by the kind of products design conceives (for example, products that connote a lack of care with the planet and with life communicate, imperceptibly, the idea of neglect towards the environment and natural resources that we depend upon); our neglect towards humankind and cultural diversity; lack of concern over other living species with whom we share the planet and whose habitats, resources and life possibilities are extremely threatened.

Thus, design plays a decisive role in making future viable, as its practice is profoundly associated with how we settle in the world, how we produce it and consequently how the world reproduces us (FRY, 2009).

In this way, relationships between design and socioenvironmental aspects are made apparent by the broad scope of the design practice, as a force

that shapes the interaction between man and the world; moreover, the design process is permeated by ecological, ethical and political aspects, it unfolds in a feedback dynamics that is able to configure deep biophysical changes in the ecosystems as well as to influence, dramatically, human societies.

The impact of this shaping force is gradually felt in the societies' behavior and its relation with the planet through different ways of interaction. One of these ways is the dissemination of society's urban and industrial lifestyle in terms of time and space through material artifacts and the values in them embedded.

2 KNOWLEDGE AND DIVERSITY

Man has always aspired to understand the world and its phenomena. The diversity of cultures spread throughout the globe translates into heterogeneous set of ways to understand the environments and their events. In the course of history, however, modern Western science has become the prevailing model to depict reality which made the repertoire of experiences gained outside the scientific realm to lose credibility.

While, on the one hand, the alleged superiority of Western society has promoted progress and modernization (many times based on violent efforts), on the other hand it has silenced the diversity of voices in the planet, and has made many different ways of living, based on different kinds of knowledge about the world, disappear (SANTOS, 2005).

Global socioenvironmental dynamics calls attention to the relationship between prevailing worldviews and the future of mankind. Considering the crisis we are going through and its relations with contemporary prevailing values, many authors believe that there is a serious mismatch between fundamental beliefs of modern science and the perspective of (re)constructing cultures based on wellbeing and quality of life, (CAPRA, 1982; GONÇALVES, 2000; SANTOS, 2000; LEFF, 2009).

Scientific paradigm rests on principles such as separation between man and nature; scientific reductionism; fragmentation of knowledge; linear causality, and order of phenomena. Santos (2000) looked at these concepts and explained their relation with problems in knowledge construction and formulation of concepts on reality, as well as their severe implications for the socioenvironmental spheres.

We highlight prevalent views and practices based on the objectification of nature and of some human groups, oversimplification of reality, production of excessively technical and pragmatic knowledge, and denial of any other form of knowledge that would not be based on strict scientific principles (SANTOS, 2000, LEFF, 2009).

This way of thinking, aligned with an economic rationality, originated systems with a high production of goods based on overexploitation of resources and high profit margins. Nevertheless, this is an abundance that

remains concentrated in the hands of few, and feeds a model of unfair distribution of wealth and disregard for the common good (LEFF, 2009).

The crisis is very clearly reflected in the social and biophysical environments as social and ecological imbalances, shown daily by the media with shocking images that witness either immediate or indirect effects of progress.

The “paradigmatic crisis” surfaces in this context of great epistemic and socioenvironmental uncertainty (SANTOS, 2000). But this is also a time in which epistemologists bring new perspectives and anticipate deep changes in the way we capture reality. Authors point to the construction of a knowledge paradigm associated with the complexity of our socioenvironmental systems and attentive to the serious crisis that worries humankind (GINZBURG, 1990; SANTOS, 2000; LEFF, 2002).

Leff (2002) draws attention to the emergence of complexity thinking and of an interdisciplinary research methodology aligned with epistemology capable of providing the basis for urgent changes in knowledge in the face of the multi-causal nature of the current socio-environmental issues.

This new strategy is based on the construction of a rationale open to diversity, to interdependence, and to complexity. A way of building knowledge that takes social conflict into account and is permeated by values of ecologically sustainable development, social equity, democracy, and cultural diversity (LEFF, 2002).

The acceptance of the principle of cultural diversity by means of a dialogical relationship with other forms of knowledge lies among the fundamental epistemological strategies for the construction of this new paradigm (GINZBURG, 1990; FUNTOWICZ & RAVETZ, 2000; LEFF, 2002; SANTOS, 2000).

Funtowicz & Ravetz (2000) evoke this important principle when they state that no cultural tradition, however successful it had been in the past, can, by itself, give all answers to our planet's problems. The authors see a way of building an integrative knowledge about the world through a dialogue with different kinds of knowledge which aim to contribute towards the solution to world problems (FUNTOWICZ & RAVETZ, 2000).

This epistemological strategy has the goal of understanding the world from different viewpoints. It is about seeking alternatives for the reproduction of life in the face of the socio-environmental difficulties generated by a prevailing westernized way of thinking (RIBEIRO et al. 2011).

Our time is one of uncertainties about how to go about and implement knowledge construction based on dialogue with the world epistemic diversity. However, there is a widespread conviction about favoring integrative and diversifying principles as alternative to excluding and homogenizing notions on which western sociocultural reproduction has been based.

In design theory, important authors have discussed these ideas. They underpin terms like “vernacular design”, “non-professional design” (PACEY, 1992), “pre-design” (MAGALHÃES, 1997) and “spontaneous design” (SANTOS, 2003), understood as material solutions that transcend academic context or institutional qualifications.

In the 1940s, Papanek’s vision of design was already integrative; he contacted other cultures, such as the Inuit, and observed material solutions that enable and facilitate their survival in their harsh environments or, in his own words, “working solutions immediately applicable to real world problems” (PAPANEK, 1995, p.249).

Santos (2003) developed this subject focusing on urban social groups; he understood “spontaneous design” as “the practice of creative resistance in looking for inventive solutions applicable to solving concrete problems in a context of severe resource scarcity” (SANTOS, 2003).

Santos (2003), like Papanek (1995), understands design in a way that goes beyond the academic approach, looking at spontaneous social responses through which individuals seek to meet their own material needs and, in the case of his study, to survive in the face of severe social exclusion.

Walker (2002) also discusses new design paradigms that widen the possibilities of this activity, in an interaction with non-institutionalized knowledge categories. According to Walker (2002), vernacular design refers to the production of artifacts by traditional cultures, characterized by creativity, the use of resources limited to what is available in their environment and having a strong symbolic value often embedded in the objects, whose values exceed functional benefits.

The author highlights the “*improvisation characteristic*” of vernacular design that enables creative solutions that fit contingent realities of limited resources; he also draws attention to the local dimension of this kind of design. In his words “*Vernacular design can provide us with at least some insight into the diversity and richness of locally appropriate design*” (WALKER, 2002, p.8).

Manzini’s (2013) perspective about co-creation in design can also be understood as a way to include non-professional or academic designers in the conception of material culture by means of “*diffuse design*”. He draws attention to the “*coalitions*” in the “*era of networking and sustainability*” as a way to strengthen problem solving and sense making in design practice.

To this end, Manzini (2013) proposes that design resort to value of social resources – by means of critical sense, creativity and practical sense—as an active force towards design recreation, arguing that design is a human capability we all share. Thus, Manzini encourages projects concerned with social innovation and sustainable ways of living through collaborative initiatives that enhances wellbeing –understood not as wealth or abundance, but rather as healthy ecosystems and relational goods.

3 INTERPRETING THE MEANINGS OF VERNACULAR DESIGN

In the Barra do Rio Mamanguape region, in the state of Paraíba, Brazilian Northeast, we took note of aspects of the material dimension of the farmer and fishing communities' culture. Data was collected in the field through interviews, direct observation, and photography, as part of the doctoral research on the dynamics of the artisanal production of utilitarian artifacts in that context.

This area is located in Rio Tinto and Lucena counties, in the central area of "Zona da Mata", northern coast of the state. It is near Marcação and Baía da Traição counties, north of Mamanguape River (MOURÃO E NORDI, 2002; OLIVEIRA, 2003).

The communities settled along the river, where there is a rich diversity of environments: Atlantic rainforest and restinga-sandbank forest fragments, coastal reefs, dunes, cliffs, islands, "croas" (sandy-muddy banks), "camboas" (arms of the main river going into the mangrove) and mangrove (NISHIDA, 2000; MOURÃO E NORDI, 2002).

Local villages are characterized by the cultural fusion of Potiguara indigenous people, Africans, and Europeans who arrived in colonial times. Their lifestyle is adapted to the way they relate with the territory and the available natural resources. Most villages are rural and people interact directly with the ecosystems. Their livelihood is based on subsistence farming and fishing, fruit gathering, wood extraction, mollusk and crustacean gathering (CUNHA et al., 1992; RODRIGUES et al, 2008), and more recently, on tourism activities.

These groups differ from urban societies, (DIEGUES, 1994), because they are associated with a production mode in which workforce and nature are not seen as commodities, as market objects; here, there is a major dependence upon natural resources and nature cycles. These societies have developed based on a small output towards the market (there is only partial reliance on the market), and their activities do not directly seek profit (DIEGUES, 1994).

They interact with urban lifestyle as they are near to urban areas and next to the dynamics of current modernization and globalization processes, mainly through different media, trade relations, and the search for job alternatives.

We interviewed ten artisans over three years of field research. They are seven craftsmen and three craftswomen who live in six villages in rural areas along the Mamanguape River (Vila Regina, urban area of Rio Tinto county; and Tramataia, Barra de Mamanguape, Lagoa de Praia, Praia de Campina and Sítio Saco).

Participants were aged 30-71, with the majority of them in the 64-71 group. Most had no formal education. The livelihood of most of them depends on subsistence farming and fishing. Their monthly income ranges

around one minimum wage, adding pension, wages and the extra income from fishing and farming.

According to Morales (2008), artisanal production today occurs in two different frameworks: first, indigenous and farming communities where artifacts are produced to complement farming and domestic activities; these are characterized by low investment in raw materials, aiming at meeting local needs; then, there is the production aimed at specialized markets, with diversified demands.

In the Barra do Rio Mamanguape area, the production of artifacts belongs to the first category defined by Morales (2008). Domestic and productive activities, such as fishing, farming and gathering, generating a material culture adapted to that kind of work, as well as to the environments in which these activities are conducted – rivers, mangroves, sea, forests, and houses. Nowadays, with tourism development, a new craftsmanship is emerging, focusing on tourists' likes.

The artifacts that were analyzed belong to “traditional craftsmanship”, defined as stemming from traditions of a specific social group, represented by objects that are part of their daily lives, elements of use and local practices. This kind of craftsmanship usually results from family or community production; here, knowledge and techniques, full of cultural meanings, are orally transmitted (MASCÊNE, 2010; MDIC, 2012).

As explained by Martins (1973), the need to supply a demand through a function, and its frequency determine the craftsman's production in a community. This need guides a clear and objective design of the identified artifacts; it clearly teaches that practical use is the priority, inasmuch as the use is determined by their own subsistence.

Thus, there is no place for superfluous elements or the creation of a number of versions of the same object to achieve the same end, as we see in design for mass production. Neither does such practice result in natural resource waste, super generation of residues or habitats degradation.

Oral tradition, observation, and trial and error processes characterize the learning process in artisanal production. Regional availability of natural resources is directly related to this kind of practice as well (MARTINS, 1978; VIDAL & SILVA, 1995).

In the case we have studied, materials come from the forests (e.g. parts of the plants) and have been used for generations. This practice is part of a dynamics of plant, animal and environment knowledge construction and technique creation that make up a differentiated way of conceiving knowledge.

Lévi-Strauss (1989) addresses this model, which he calls “savage mind”, typical of populations deemed “primitive” or those disconnected from modern scientific knowledge, such as is traditional populations of farmers and fishermen.

It is worth noting that this “savage mind” is related to the broad interaction between man and the environment, and to the human need to categorize the elements of his universe, that is, to meet his intellectual requirements. As the author explains, “*animal and plant species are not known because they are useful; they are considered useful or interesting because they are known in the first place*” (Lévi-Strauss, 1989, p. 25).

This interaction between man and nature leads to an empirical understanding of the environment expressed by a range of ecological knowledge, techniques, and skills, as well as the notion of complementarity and dependence in relation to the environment and its resources. This interaction with ecosystems also widens the sense of belonging, of being part of these systems, opposing to anthropocentrism and individualism that are predominant in the urban context.

In the Barra do Rio Mamanguape region, artifacts are produced by artisans individually, made to order at a slow pace that follows craftsmen’s personal demand or buyers request – people from the same community or from nearby villages.

Objects produced in larger number are baskets, the “samburás” (a specific kind of basket), brooms, “urupemas” (a kind of sieve) and the “covos” (a fish trap). Our description concerns these last three artifacts.

The “urupema” (Picture 1a) is a sieve made in various sizes and mainly used to process cassava for the production of artisanal flour. It is also used to make tapioca and corn food, such as couscous, as well as for washing fish and shellfish.

Materials used to produce these artifacts are plant species locally known as: “uruba”, used to weave the sieve; “cipó de fogo”, which shapes its circular structure; and cipó-timbó, used to tie the two parts of the urupema.

The “covo” (Picture 1b) is a fish and shrimp trap used in the mangroves and rivers. Fishermen place the “covo” on the river bed and leave it there during the night. Preys are attracted by baits, such as crab pieces or fruit, which are left inside there. The inlet of the “covo” is shaped in a way that prevents the incoming fish to get out.

Materials used to produce “covo” are “taboca”, plant similar to bamboo or leaves of a palm tree called “dendezeiro” to weave the cylinder and the “sangras” which are the conic elements placed in the entrance of the “trap” and inside the object; cipó de fogo, for the circular elements inside the artifact; and “cipó imbé”, used to tie all parts of the trap together.

The main technique here is weaving whose origin date back to early days of mankind and point to the intense relationships between Brazilian indigenous peoples and nature (VIDAL & SILVA, 1995). Products of weaving are at one time rustic and delicate, features associated with a rural lifestyle, characterized by the use of natural materials and simple technologies. It also represents the artisan’s care and dedication to precision and regularity in the weaving measurements and in his own motions, ensuring firm and durable artifacts.



Picture 1: (a) “Urupema” or Sieve; (b) “Covo”
Source: Research Field – Photographs by the Author

The work of local artisans is characterized by quality in the making and in the materials, which help create long lasting artifacts; durability is a priority since these objects are key tools to the live hood activities of the artisans themselves as well as of their families and neighbors. Such practices are th opposite to the planned obsolescence which permeates today’s object production in our consumer society.

In these artifacts we can also read: a sense of integration, represented by tangled straws, splints and slats that stick together through insertion, ties or splicing, with no need of glue to shape the totality of a functional object; and the sense of lightness, ever important in daily and social life of these communities, represented by the spaces left between the pieces that, in different measures, allows air, water and the gaze, to go through artifacts.

This production also shows artisan’s experience in handling the artifact he makes, since this regional artisanal production is a practice associated with other main productive activities. This means that for several generations producers used these tools to perform their tasks, which lead to empirical improvements over time. These objects stem from the collective appropriation of artifacts that are key to that way of life, made by anonymous players in a co-creative process that have run for several generations.

Another aspect related to the sociocultural meaning of this artisanal production is that even if artisans produce successful artifacts for their “clients”, profit is never their target. Very often, the work is carried out even if the “client” just provides the artisans with the materials, or sometimes even if the “client” does not supply nor the materials neither pay for the service.

Moreover, at the same time that it is a practice that supplies the community with useful artifacts, artisanal production is a way of preserving artisans’ health and quality of life – they do this work because it fulfills them and they see its beauty. And they continue to do so when they age, in order to avoid idleness and to keep healthy.

All this relates to the emphasis put on the social meaning of this production (to provide tools for household and productive tasks of that social group); to the sense that these are materials they all need; and to the feeling that this activity and that repertoire of material solutions are fruits of their culture, rooted in their lifestyle, traditions, knowledge and practices.

Some historical changes affected the lifestyle of Barra do Rio Mamanguape villages, and had impacted their artisanal production. These included: deforestation of wide areas of the Atlantic rainforest and the subsequent implementation of sugar cane monoculture nearing the territory occupied by the native people; changes in lifestyle and access to

Picture 2: Broom
Source: Research Field –
Photograph by the Author



Picture 3: (a) Covo; (b) Shoe
Source: Research Field –
Photograph by the Author



new modern and industrialized products, and environmental modifications; and constraints imposed on land use by environmental policies.

Those transformations could be noticed in several artifacts identified in the field; moreover, they entailed the extinction of various regional traditional artifacts, according to interviews with members of the communities and data from previous research (COSTA & COSTA, 1989).

Adapted versions of traditional artifacts as well as innovations were documented. They are characterized by the fusion of traditional knowledge and techniques; local natural resources; new available materials (residues and other industrialized items); and innovation in knowledge and techniques derived from the access to other materials, and from artisan creativity.

The broom (Picture 2) is a common household object, locally used to clean unpaved backyards, as its bristles can remove small residues from the soil.

We noticed that artisans maintain a traditional material (coconut stiff strands) used in local brooms, but reuse the industrialized broomstick and aggregated new components (plastic deodorant container and pieces of wood and rubber from tires) to improve durability and functionality. Plastic tubes keep the bristles in place for a longer period of time and the wooden and rubber plaque divides the bristles giving the broom a garden rake effect. The origin of plastic tubes is another interesting thing about this artifact. Neighbors save them after use for artisans.

Picture 3a shows a “covo” made by reusing PET bottles, now part of the local daily life. This trap is used to the same end as the traditional ones, and its construction follows the same principles: two openings, one for fish to go in and the other one for fishermen to remove the fish, plus internal conic elements that prevent fish from escaping. And to make sure the object does not float, artisans made little holes all over the trap, obtaining an effect that is similar to that of the traditional object.

Picture 3b shows a shoe created to protect the feet of the crab catchers in the mangrove, an environment that poses risks like slippery mud, hidden pointed roots and cutting oyster shells. The tire chamber rubber was used by the artisan to avoid hurting his feet and for enhanced stability when walking on mud. This material is used because it is available in those villages. Today, motorcycles are very common in that area, which have brought this new material.

These artifacts point to the fact that hybrid artisanal production preserves the social meaning of traditional material cultures and adds to its legacy a sense of resilience. Even in face of serious hardships that affected local lifestyle and jeopardized its material expressions, those villages continue their sociocultural reproduction by means of material expressions. And

Picture 4: Embedded Meanings in Vernacular Design in Barra do Rio Mamanguape Region, Paraíba

Social meaning	(1) Meeting evident social needs (2) Community participation
Cultural meaning	(1) Cultural and traditional expression, linked to local lifestyle and traditional ecological knowledge
Ecological meaning	(1) adaptation to local cosystems and use of natural resources available in the area (2) use of abundant and renewable natural resources and biodegradable materials (3) human-nature interaction: codependence interaction, men as part of the system (4) Resignification of industrial waste and materials
Durability meaning	Build quality with simple technology and adequacy of materials
Co creation and collective ownership meaning	Co creation and collective/intergenerational improvement of material culture used by community
Self efficacy, self-realization, autonomy and quality of life meanings	Characterizes the artisanal work, the self-production of artifacts and the local supplying of artifacts
Resilience, creativity and innovation meanings	Adaptation to sociocultural and environmental changes observed in elaboration of new artifacts

Picture 5: Practices of Vernacular Design in Barra do Rio Mamanguape, Paraíba, and Possible Sociocultural and Environmental Outcomes

Practices	Possible sociocultural and environmental outcomes
Use of local resources	Reduction of impacts associated to materials transportation (atmospheric pollution minimization, energy and fossil fuel saving, etc.); Ecoclimatic adequacy; Easy access
Traditional knowledge use	Appreciation and conservation of cultural identity; Use of local resources belonging to tradition and innovative local materials; Human-ecosystem interaction in a dynamics of care and codependence
Reused components + Abundant natural resources	Waste reduction and minimization of their complex impacts in environment; Energy and raw material savings; Conservation of habitats; Use of renewable materials
Craftsmanship	Enhancement of creativity and other cognitive potentials of the workers - personal fulfillment and pleasure; Constructive quality of the products; Use of simple technologies - energy saving
Community engagement	Environmental awareness; strengthening of social cooperation sense
Local market promotion	Income and savings
Local supply of artifacts	Meeting local needs; Easier access to products; Participation in the production of artificial world - different legacies
Engagement of elderly people in craftsmanship	Conservation of local traditions and culture; Increase in quality of life and health of the elderly

those involved with artisanal production came up with new responses to long standing everyday tasks, also motivated by their sense of cultural autonomy.

These “hybrid artifacts” (BURKE, 2003) mean an adaptation to several environmental and sociocultural transformations in the region and are a persistent attempt to maintain their autonomous sociocultural reproduction, even in face of many factors that stifle it and make it dependent on urban, industrial and globalized context.

Once they have access residues of industrial consumption, theirs or others’, these artisans have transformed the meaning of this waste. They have joined things that seemed useless with their traditional knowledge, techniques and habits – stemming from constant and close contact with nature and the social sense of subsistence – to materialize innovative solutions.

Picture 4 shows the meanings incorporated into vernacular design in the region of Barra do Rio Mamanguape, as seen in our analysis. Picture 5 presents the identified practices and possible outcomes related to the production of artificial world that can be replicated or reinterpreted in other contexts.

CONSIDERATIONS

The artifacts analyzed are witnesses to local lifestyle: both traditional artifacts – which point to the fundamental interaction between different ecosystems and natural resources as well as to the cultural repertoire orally transmitted over the generations; and hybrid artifacts – which represent the sociocultural dynamics in complex transformations and adaptations influenced by environmental change, and interactions with modernization, industrialization and urban life.

The practices and meanings incorporated into vernacular design in the region of Barra do Rio Mamanguape are a differentiated cultural legacy of the artificial world production made outside the academic and professional world of design. This repertoire can translate into sociocultural and environmental benefits if its application is adapted to other contexts.

Thus, we encourage, in the training of designers, the inclusion of experimental exercises that recognize the vernacular design legacy, and also that Walker’s (2011, p. 20) warning is taken into account: *“priorities such as technological innovation, ergonomics, mass production of uniform products for wide distribution to international markets and even economic viability can, indeed must, be at least temporarily set aside so as to more freely develop design possibilities that embrace and are expressive of new sensibilities”*.

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Author's note

Este artigo é fruto da pesquisa de doutorado de Marília Riul, orientada pela professora Maria Cecília Loschiavo dos Santos, coautora. A pesquisa tem financiamento da Fapesp (Bolsa de estudos - Processo Fapesp n. 2011/21336-1) e é realizada no Programa de Pós-graduação em Ciência Ambiental do IEE/USP.

Editor's note

Submitted: December 2014

Approval: February 2015

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