Design and Craftsmanship: The Brazilian Experience
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Introduction
According to the Brazilian Ministry of Commerce and Industry, about 8.5 million people are linked to the production of craftworks in Brazil. Various governmental programs encourage groups of small community businesses and craftspeople to develop partnerships and associations, to seek new solutions for increasing both the target audience reached and their entrepreneurial skills, and to add value to their crafted products. These different actions seek to bring significant contributions to the production processes characterized by craftsmanship—contributions that enhance economic and socio-cultural development in these production areas, and that often introduce design principles into the creation of traditional products. In most cases, designers start by meeting the group of craftspeople, developing proposals for new designs and incorporating innovations; they finish by providing the group with a series of new alternatives for production process.

However, this process suffers from limitations that often translate into a return to the starting point. Introducing foreign elements to the population’s cultural tradition (e.g., new designs, different products, or advanced technologies) can also bring new problems. In this case, the former craft processes are displaced, and the effective improvement of community life conditions is not guaranteed. This situation persists despite the large number of programs developed and the strong institutional and financial support from various levels of Brazilian government. In our experience as a research group involved with communities of craftspeople and small and medium-sized enterprises (SMEs) in Brazil, we have observed some common aspects, even in diverse situations, that can explain the relative failure in the intervention methodology adopted by governmental programs focused on craftsmanship. In these programs, we see a lack of continuity of actions, including a post-intervention assessment and the critical analysis arising there from, thus reducing the number of local references (e.g., traditional products) for new designs. Moreover, craftsmanship production suffers today from an apparent paradox: While the demand for handmade products grows quickly, the

work conditions in the production process become more precarious. Thus, craftspeople eventually suffer from an increasingly accelerated and intense work process and workload, with significant effects in areas such as occupational health, without experiencing any improvement in income.3

The Craftsmanship

The application of design principles to small enterprises with low technology and to groups linked to artisanal production has occurred from the perspective of traditional design intervention, adopting a methodological approach to solving local problems.4 The point is that these cases require a targeted approach that is quite different from the way of seeing industrial design in Brazil (and in other Latin American countries). Here, industrial design has been highly influenced by The Hochschule für Gestaltung (HfG) Ulm, in Germany, which championed the insertion of design into the industrial process, and discarded all artistic or decorative speculations about design activity.”5 This approach is adequate to an industrial organization that uses modern technology. In a few words, the traditional design is focused on mass production, or on a flexible, although highly technical, process.

However, industrial design is not prepared to meet the specific demands of the system of craft production. As evidenced in our empirical research, craftsmanship has some basic characteristics. First, the craftsperson (in the most traditional sense) has the know-how about the entire production process, mastering techniques of extraction of raw materials, concept solutions (not to be understood as a formal design process), process production, customer service, etc. Second, the craftsperson is responsible for his or her entire business, regulating a number of market factors, including prices, models, and demand using intuitive (i.e., unstructured, not formal) knowledge. Third, this way of doing business leads to very specific characteristics for products that become local representations and documents of a craft tradition itself, with their own criteria of quality that are intrinsic to the product and that make it desirable to consumers. Together, these characteristics generate the primary quality of a handmade object, which is the fact that it is unique as opposed to serial (i.e., not a “series,” as is that produced by the standard industry paradigm).

An apparent paradox resides in the idea that design can develop a product that, despite being unique (as a handmade product), can be reproduced (as an industrial production). This contradiction can occur because nothing is beyond the concept of flexible production in the extreme. In this case, the question is this: If the flexibility sought by modern production technologies can be achieved through the craft, why seek the “standard” model? It would be more appropriate to explore the characteristics of each type of production related to systems based on craftsmanship. The

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typical features of the process (i.e., the variability and the possibility of immediate adaptation to the needs of each user or consumer) would be improved because the methods of both design and manufacturing are held by the craftsman. Nevertheless, this improvement is not what happens in the cases evaluated in Brazil. In general, we can identify three basic situations in craft production, based on the consumer market and the characteristics of the production process:

1) Traditional craftsmanship, where the craft process meets the demands related to everyday objects and utilities (e.g., baskets, clay pots, iron or stone, and leather goods). This model is in sharp decline because most of these utilitarian objects can be produced cheaply and with similar or superior characteristics through the industrial process.

2) Folk artistry, where the craftsman becomes a “folk artist” as collectors acquire his or her decorative pieces. In this case, the utilitarian sense of the piece (its use value) is suppressed by its greater aesthetic value. This work can yield substantial financial returns to the craftsman, who becomes a reference to the public. However, they usually do not have regularly predictable demands, which hamper possible forecasting of financial returns. The craftsmanship also becomes subject to the whims of market décor and alternating fashion styles and patterns.

3) The “industry of crafts,” which is strongly linked to tourism and the sale of cheap souvenirs. Here, consumers buy supposedly handmade pieces reproduced by the thousands, often in industrial or semi-industrial processes. This situation ultimately can bring many problems to the craftsman; it provides a range of market that has greater predictability in terms of units sold, although the return per unit is minimal. However, this form of “cheap” craft is often a guarantee of subsistence for the craftsman, given that the demand for more expensive pieces varies. In this condition, the craftsman competes in the market by adopting the industrial model: more pieces, more uniformity, lower cost.

These craft production situations can be observed at different locations in developing or developed countries. The problem is that the ways of integrating design in these cases are not clear. On the one hand, in developing countries, these interventions of industrial process into craft can bring important changes to traditional production processes by enabling and introducing new designs. On the other hand, it creates standardization in the products and also reduces the production of the traditional crafts.
The Contradiction

In several cases observed in Brazil, designers used recursive methods of intervention in populations that do not have the same characteristics as the consumer groups for which the designer often works. The problem in these cases is that the information exchange takes place based on an approach from the outside or through an “enlightenment” vision. This approach is characterized by the principle that the designer holds the intellectual and technical expertise that the group being helped lacks. Thus, the designer’s job is to transfer such knowledge to the group so that it can develop itself. In these cases, the most common situation involves the government’s using a design intervention to add value to traditional crafts. In this “top-down” intervention, the designer develops a series of “new products” and designs that can be reproduced by craftspeople or in small companies.

The question to ask is whether this intervention model is the most appropriate and effective means of development for the population being served. This development should go beyond a purely economic perspective and must include social, environmental, and cultural perspectives. In some cases, the adoption of a new technical solution proposed by the designer might not be the best alternative in the long term (or even in the short term). Abandoning their tradition creates a dependency by the craftspeople on the newly adopted design. To avoid such dependency, they must be capable of creating a new solution, based on the designer’s proposals but improved and adapted according to their own reality. The craftsmanship process is frequently very peculiar and it requires a particular approach to design—one that is very different from the usual product design process in industry.

In this case, we come to an important issue for debate: Is design, by definition, directed to a model of industrial production, a standard production? Henry Dreyfuss clearly articulates in his book, Designing for the People, the importance of standard design. 6 Even training of designers from the Bauhaus has been premised on the idea of industrial production. 7 In this case, the designers are prone to adapt industrial principles. However, such principles cannot be adapted to the crafts reality.

That the opportunity, convenience, or necessity of interaction between design and craftsmanship exists is without question. However, such interaction should no longer have a character of “intervention” (outside to inside, the “specialist” teaching the layperson), but should be approached from a perspective of “collaboration.” The difference between these approaches, far from being subtle or irrelevant, provides the key to understanding the problem.

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7 Magdalena Droste, Bauhaus 1919-1933 (Cologne: Taschen, 2006): 60.
Innovative or Revolutionary?
In the craftsmanship case, various aspects can be changed without the need to modify the handmade object—including the marketing focus, self-management of the group of craftspeople, and setting the price based on clear cost criteria. None of these changes in practice would change the production of the product itself. This process of creation is a significant part of local culture, the tradition of the craftspeople, and only they can change it. The designers, at the outset, must recognize these limitations and understand that their knowledge is not better than that of the craftspeople. In this situation, the designer does not know the processes of production, does not know the material, and has no market information (e.g., the final customers, tourists, etc.). This statement might seem exaggerated, but it is not: The design does part from of a structured and formal product development process, working as a “glass box.” This development in the craft is done implicitly, without the level of organization that often characterizes the industrial enterprise. In craftsmanship (in its traditional sense), there is no need of a formal development process.

The difference between these two design approaches is in the field of design methodology, with which craftspeople generally are not concerned. A lack of knowledge or interest makes sense because establishing a methodology in craftsmanship was never required; they learned from tradition. The difference now is in the need to train craftspeople to focus on sales growth and to “protect” artisanal knowledge in the face of the market. Tradition-based craftsmanship cannot depend on the designer, as industry-based production does. Trying to design craftsmanship production, in which the designer draws up solutions to be replicated by the crafts-person, transfers the responsibility for the concept from the crafts-person to the designer, which undoubtedly represents the main risk of this interaction. The “visible” part of the craft essentially is the domain of the technique, as well as of the sensitivity to create based on contact with the material—the tooling on a daily basis that allows for new trials. Technical training is essential, but it is only the “tip of the iceberg.” The mastery of technique also makes craftspeople capable of shaping their thinking about the material being processed. The designer, meanwhile, has the visual representation of the idea, which is then built by others (hence the need for the project). This potential for interaction between crafts-person and designer can stimulate creative crafts.

Therefore, the designer’s role is to transfer to the craftspeople the sufficient methodological basis for them to solve their own problems of product development. This attitude, although it seems simple in principle, overturns all the existing relations between the designer and craftspeople, as well as between the craftspeople and...
the market in which they are involved and where their products are sold. They cease to be “objects” of intervention (whether from designers, brokers, dealers, or others) and can begin to act directly on their own work, not only operating in material resources, but also producing designs of their own solutions. That is, they learn to design.

This change, far beyond being professional or cultural, is ideological and pedagogical because it transfers to the craftsperson (or group of craftspeople) the authority over design and development of their own work. When transferring the design methodology, the forms of product development and the graphical representation of systematic solutions might be the most diverse. However, the conception of the local products still must reflect the population’s own culture.

This position is close to the “organic intellectual” proposed by Gramsci,9 in which the designer fulfills the function of organizing society in its historical development. If designers act as the “organic intellectual,” their role in craft production could be to help form creative groups. These groups would conduct a methodical, systemic, and systematic search for their own cultural references and techniques, applied in the conception of new objects representative of their cultural tradition. The application of design would be in this way, paradoxically, the liberation of the craftspeople, who would start walking on their own legs, until the formation of something that can be likened to a “social innovation.”10

This posture again is similar to the Gramsci proposal for the “organic intellectual:"

The intellectual in the Gramscian sense is one who fulfills an organizational role in society and is prepared for a class in its historical development. The intellectual can [range] from a technologist or a businessman [to] a union or party leader. (...) He works among the people in the streets, in parties and unions. Thus, the intellectual is an academic, journalist, father, film director, actor, radio announcer, writer professional, and the collective intellect; in short, every man is an intellectual in potential.11

Solving a technical problem that is important to the social group requires knowledge outside the group’s cultural tradition and a clear intervention of industrial design, as described further along this paper. This support, although it follows a specific parameter that involves a singular approach to the group, follows the traditional model of product development process. The intervention in groups of craftspeople, in contrast, aims to promote changes not only in the product characteristics, but also in the production structures and the model of knowledge dissemination that are part

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of the group’s tradition. In fact, the designer in this case deals with the tacit knowledge of the group and not with his or her own formal technical knowledge.

The question at hand is whether a model of intervention is actually needed in different groups of craftspeople who have already established a cultural framework. Moreover, can anyone know better how to deal with this reality than the craftspeople themselves—a reality they know deeply? The main challenge arises in the effort to undertake a formal knowledge transfer (a design methodology) to a group whose social structure is based on a tradition of tacit knowledge. Another problem is that these groups of craftspeople often have low levels of formal education, which hinders the incorporation of abstract concepts. How can they quickly be formed into “new designers” if they do not have a consistent base of formal knowledge? In this case, the experience of Paulo Freire with adult literacy is quite valuable. Freire used elements of a person’s everyday life and its cultural context to teach adults to read and write, as described in his “letter to teachers.”

This is a design issue. The transference of knowledge is an important pedagogical aspect, and it should be treated as such. This process, indeed, is a design issue. The proposal here is to “teach the design process,” adhering to the principle of Freire’s “pedagogy of the oppressed.” Freire discusses the mainstream education process in terms of the “banking” of education:

In the banking concept of education, knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing” (…) “Is it not surprising that the banking concept of education regards men as adaptable, manageable beings? The more students work at storing the deposits entrusted to them, the less they developed the critical consciousness which would result from their intervention in the world as transformers of that world. The more completely they accept the passive role imposed on them, the more they tend simply to adapt to the world as it is and to the fragmented view of reality deposited in them.

The expectation of design intervention is that, on the one hand, it generates a financial return (economic sustainability) to the community or the group of craftspeople involved. On the other hand, the increase in the production level cannot have a significant (negative) effect on the environment (environmental sustainability), so that the welfare of workers and their families (social sustainability) can be assured. As we can see in the cases studied, the economic sustainability is shown as essential (obviously). In the Pitangaporã Project, developed in Brazil, the craftspeople involved were motivated by the need for financial gains from the production of items.

In this case, the design solutions were developed by their group in a cooperative way after it engaged in learning sessions conducted by designers addressing the craft and the technical development of solutions lead by the group itself (see Figure 1).

The situation is common to groups of craftspeople in small villages, which are gradually being exposed to a market oriented to national or (sometimes) international tourism. The cases analyzed in Brazil have various aspects, as different levels of tourist access, benefits, and risks. They of course do not reduce tourist flow, but understanding the logic of this flow and the implications on the system of craftsmanship production would be interesting. The Pitangaporã example shows that a group at social risk can develop product solutions based on their own cultural references (see Figure 2), from the domain of a technique of manual work (in this case, “papier mache”).

### Design Approach

In developing solutions for social risk groups, designers assume the role of mediator between the reality of the design problem and the product users, just as in a traditional design process. In this case, design can be an effective tool for achieving social restructuring through changes—more or less relevant—in products and production systems in developing countries or poor regions. This concern is not recent; it has been identified at least since the 1970s—in the Bonsiepe activities in Chile; in the International Council of Societies of Industrial Design (ICSID) “Design for Need” Symposium at the Royal College of Art, in London, in April 1976; and in the concept of “appropriate technology,” focused on design solutions in developing countries. In these cases, the designer acts as a consultant in these groups or companies as they trying to solve, through specific methods, the problems that can be located and measured by designers. The participation of the population in these cases varies according both to social and cultural characteristics, as well as to the nature of the problem. In these cases, product design can cater to the specific needs of the population, such as the availability of drinking water.

This approach complements the philosophy proposed in the D4S—Design for Sustainability—principles applied in several developing countries and in the initiatives currently being proposed in the DBoP—Design for the Base of the Pyramid—experiences. Approaches such as D4S and DBoP are widely recognized as an effective contribution into providing for the needs of the population.

However, it is essential that the intervention does not cause the abandonment of traditions and other important aspects of local cultures, and that it has an approach that ensures the sustainability of the environmental point of view. This question arises before cases such as the ones experienced in Brazil. Different ways of approaching the design for the craft are described by Bonsiepe, ranging from a “conservative” approach to one with a “promoter of innovation” focus, in which craftspeople are actively involved in the adaptation of their products. Morales describes, using Bonsiepe as a reference, the application of a paternalistic and authoritarian design approach to design in craftsmanship in Mexico that had presented discouraging results. Given such cases in understanding the consequences of different approaches and the influence of the intervention on the social structure of the group being assisted is fundamental to the effort. In some cases, designers are developing technical solutions to solve specific problems identified in the communities as (e.g., energy scarcity, water purification, etc.). In others (as described by Morales in Mexico and also observed in Brazil), the intervention is focused on the change (or the improvement from the designer’s point of view) of a traditional product or production process.
Conclusion
The design collaboration can effectively serve as an element of social change, making craftspeople free to create their own solutions and designs. The idea is that the design intervention must follow the proposals of Paulo Freire, working with the cultural universe of the social group attended. However, a change of focus is also necessary: The craftspeople are not the designer’s “clients” or the “users” of their products; they are “social actors” involved in a process that, ultimately, releases them from the traders and designers, and gives autonomy to develop their own products to the market. This stance is essential, and from it emerges the idea of the “organic intellectual” in Gramsci, and the rejection of, as Freire terms it, “banking education.” The designer will not act as a consultant, but as an instrument of social change among the group being influenced.

Furthermore, the design interventions with the social groups at risk, such as those in Asia, Africa, or America, are fully justified, as described in the literature review. These actions differ from those efforts undertaken seen as “the design in support of the craft” and are the key to justifying the new approach. The design interaction offers distinct forms of action, which should vary according to the needs of the social group involved, and an accurate diagnosis is as important as the intervention itself. Properly assessing the need to which the designer caters—not only in terms of the need for products or economic sustainability—but results in social innovation in a broader sense.

In the specific case of craftsmanship, the application of these concepts can bring effective change in the paradigm of design application. The reason for this change is a new relationship between the designer and the communities. The designer should stick to the role of “organic intellectual” and consider the obvious (but not always remembered) fact that the tacit knowledge of the craftsperson is not better or worse than the formal knowledge of the designer—it is just different. The craftsperson, generally welcomes the interaction with the designer, but such interaction should be planned to bring results over time, perhaps even long after the intervention. In this way, we understand that the desirability of a pedagogical design action with groups of craftspeople makes them independent and facilitates their role as market actors and as actors in the process of developing their products.
The design approach should be combined with other ways of life conditions improvement, as health and formal education programs, so that the educational improvement occurs in its broadest sense. The change from a classical model of design intervention to a new way of collaboration between designers and craftspeople groups can contribute to a stronger social change and a sustainable advancement of the small communities in Brazil and others developing countries.

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