Design and handicrafts: The importance of interdisciplinarity in collaborative design practice

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ABSTRACT
The focus of this article is on the relationship between design and craftsmanship in the Brazilian scenario of social projects with craft production. It presents the importance of collective and collaborative actions as forms of mediation in this scenario. The article argues that in order to develop a design mindset that expands beyond projective practices and takes into account the social and political context for more sustainable solutions in environmental, social and economic levels, the mediation has to be collaborative. In the paper, a parallel is outlined between this collective, collaborative and complex work of design and the multidisciplinary, interdisciplinary and transdisciplinary approaches. To address the complexity of this subject, practical examples are identified to show the important strategic role that the designer plays in these social innovation processes.

Keywords: crafts, collaborative design, social innovation, interdisciplinarity.

Introduction
This article addresses the social importance of artisanal production, its connection to sustainable practices and how the designer mediation happens in this process, emphasizing the formation of cooperative and interdisciplinary groups.

The discussion presented has its basis on the craft definition adopted by UNESCO during the ITC Symposium “Crafts and the international market: trade and customs codification” that took place in Manila, 6-8 October in 1997:

Artisanal products are those produced by artisans, either completely by hand, or with the help of hand tools or even mechanical means, as long as the direct manual contribution of the artisan remains the most substantial component of the finished product. These are produced without restriction in terms of quantity and using raw materials from sustainable resources. The special nature of artisanal products derives from their distinctive features, which can be utilitarian, aesthetic, artistic, creative, culturally attached, decorative, functional, traditional, religiously and socially symbolic and significant (UNESCO, 1997).

In this context, it is possible to consider that design emerged during the Industrial Revolution, in the transition period from the craft to the industrial production process. The designer, in turn, emerged as a new professional with the role of creating and designing products, being the one responsible for making the connection between the owners of the factories, the workers and the consuming market.

For a long time, this activity was closely linked to mechanization and industrial production, as if the relationship between industrial and craft productions was not possible, which led to the depreciation of handmade products and the crafter as a profession. This happened in part due to a lack of theoretical analysis of design practices.

This approach, yet, was questioned from the beginning bringing about some movements with ideologies opposed to this, such as the Arts and Crafts movement, influenced by John Ruskin and William Morris in England. This movement was based on appreciation of craftsmanship opposed to mechanization and it was the spark of social thought for design. Morris said that one would not override the other and instead he suggested an alliance between artisan and designer. In his opinion, artists should be transformed into artisan-designers. Therefore, the designer would learn from technicians and craftsmen and they, on the other hand would learn from designers, thereby improving the quality of the final product and consolidating the thought of social design, in which the manual artist would not lose its place in an industrial world (Pevsner, 2002 in Diniz, 2013). Ruskin

1 The paper was originally presented at the 12th P&D, Brazilian Congress on Design Research and Development, held at Minas Gerais State University (UEMG), Belo Horizonte, October 4-7, 2016. An initial version of the paper, written in Portuguese, was included in the Proceedings of the event. This is an English reviewed version of the paper, improved with the contributions from the congress.
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Even in this new way of thinking and producing design we show an evolution with its focus on society’s problems. Disruption with the dominant processes of production and consumption, and the strategies adopted. However, the directors that followed him in the Bauhaus began to search for new methodologies in other areas, such as architecture, thus distancing the craftsmanship from design.

In Brazil, the mindset and actions of the designer Aloísio Magalhães were of great importance, as he advocated the inclusion of Brazilian handicrafts and other cultural manifestations in the development of national policies as well as in the country’s cultural policies (Cabral, 2007). His actions were intended to respond to the criticisms that Brazilian design suffered at the time, from 1930 to 1950, due to the lack of cultural identity.

Magalhães believed that the people, understood as a set of various social segments and local communities that constitute society, would be the agent to enable the living dynamics of the Brazilian cultural production, the producer of cultural assets, that would assure its authenticity, continuity, and creativity as a characteristic (invention) (Cabral, 2007, p. 48).

Another author that influenced the process of strengthening the link and interaction between design and craftsmanship was Victor Papanek, the designer and educator that in the 1970s published books promoting the importance of this relationship, with a strong concern in social and environmental issues. Papanek summoned designers to use an inclusive approach, encouraging the abandonment of the design policy of profit, and assuming the project as a tool to help others and to shape products and places.

Development

Design for sustainability

It is clear that the “attempts” to bring artisanal practices closer to the practices of design have always existed, either as teaching methodologies, or as a valuation of a genuinely local culture or as an appreciation of the social issues in the practice of the profession. Nowadays artisan practices represent one of the means used by design in the search for more sustainable solutions in their projects. To show and defend this issue, we bring the ideas of Ezio Manzini. We begin by describing the changes that occurred in design methodology and the pursuit of sustainable solutions through handicraft, reaching new possibilities of disruption with the dominant processes of production and consumption, and the strategies adopted.

The paradigm shift in the designer act of projecting shows an evolution with its focus on society’s problems. Even in this new way of thinking and producing design we can see progress. At first, the design projects were oriented to the real needs of customers, taking into account their social and cultural contexts, in other words, the designer projected for the user. Later, in addition to this practice of designing for someone, the designer takes on a new role, which is to design with the users. This new way of designing with someone, called social design, allows actions with cooperative groups as partners, promoting social inclusion through its methodologies. Generally, the methodologies adopted in these cooperative groups are linked to issues relating to economic, environmental and social sustainability.

In this sense, Manzini (2008) traces through sustainability a project path to the designer, aiming at social innovation. He conceptualizes social innovation as changes in the way that individuals or communities act to solve their problems, creating new opportunities. In short, social innovation seeks new ways through simple sustainable practices, while design can promote and strengthen social innovation since it has a good dialogue with other fields and is able to develop integrated solutions for products, services, and communications, capable of dealing with the challenges of the contemporary world.

We must remember that one of designer’s tasks is to improve the world’s life quality and not just the aesthetics of products. Manzini states that sustainability should be the biggest goal of all researches in the design field, but since this objective has not been achieved yet, we continue to use the term “design for sustainability”. In summary, the design for sustainability is the strategic design able to put into action local promising discontinuities, contributing to effective systemic changes. To this end, we must try new possibilities and break with these dominant production and consumption processes (Manzini, 2008). Thus, it is possible to say that the strategic design emerges as a way to confront the cognitive or cultural capitalism that prevails nowadays, looking for a new alternative to this model trapped into the economic system, aiming at a social and sustainable development.

Please note that cognitive capitalism is employed in this article in Giuseppe Cocco’s perspective, for whom the material work of mass production, previously measured in units of products by a unit of time, is replaced by the work known as immaterial that no longer uses the classic measurement standard. According to Cocco (2014), cognitive, communicative, linguistic and affective activities are the ones that produce immaterial value and shape the “soul” that the capital must bring to the factory floor. Therefore, the immaterial work is a living work, with a concrete meaning production that qualifies the process and adds value to the goods.

The concept of sustainability emerges, then, as a response to this consumerist society and its irresponsible practices of production. Initially, the term was used only regarding to ecological causes of environmental protection, but today it has expanded to other areas, such as the social one, for example. In this case, sustainability concerns sustainable social development, which is related to the sustainability capacity generated by the society for its own benefit, focusing mainly on social welfare.

But what social welfare means? Ironically, the welfare concept that we have nowadays in the West has consol-
idated with the Industrial Revolution and is directly linked to unsustainable consumption of environmental resources. We are led to believe that individual freedom is closely related to how much we can consume; and to an increased number of products we have the opportunity to choose, which can reduce our efforts and increase our free time. How, then, to dissociate the feeling of welfare from the acquisition of new products, in a society that lives like this for over a century? New ideas to address this challenge begin to appear. When the welfare sense begins to dissociate from the exaggerated consumerism of products, the individual realizes that this kind of personal satisfaction cannot be more important than the care with everything that surrounds him or her. It is a question of being careful about the ones around him or her, in a movement of dissociation from the consumption of material products and services, and connection to the culture, the spirit and the relationship with the environment in which we live.

Manzini claims that this trend towards "strategic design" or "design for sustainability" is already in course and cites groups of people that were able to come up with innovative solutions. He defines these groups as creative communities, considering their ability to rearrange existing elements in new and meaningful combinations, which he calls creativity. "These creative communities establish connections, more or less strong and explicit, with the practicing and thinking ways used in preindustrial cultures" (Manzini, 2008, p. 64).

It is worth remembering that the concept of sustainability refers to the choices about the forms of production, consumption, housing, communication, nutrition, transportation, and also to the relationships between people and their environment, considering ethical, supportive and democratic values. In this sense, valuing handicraft production is important as it is concerned with the use of local raw materials through a traditional way of making things, passed from generation to generation, respecting the environment. Thus, combining design with the craft production strengthens the process of social innovations, because it unites popular and tacit knowledge, technical and scientific concepts, and social organization that lead to the development of citizens committed to ethics and social responsibility.

The relationship between design and craftsmanship as an interdisciplinary exercise through collaboration

The designer assumes in this process the important role of mediator. He or she is the person that facilitates the formation and strengthening of the groups of artisans through the project methodology based on a "strategic design" or "design for sustainability". As already mentioned above, design has a good dialogue with other fields and is able to develop integrated product solutions, services, and communication (Manzini, 2008). However, the obstacles are not few, and to face them, collaborative and interdisciplinary attitudes are crucial.

Social commitment is therefore the main reason that drives designers to working alongside with operating community groups or creative communities – considered in this article as artisan's groups – to act cooperatively seeking solutions to certain contemporaneous problems. From the 21st century on, with a new approach of social inclusion, the handicrafts assume an important labor and occupational function, allowing the ones excluded from the formal labor market to create new opportunities of income generation, seeing the handicrafts production as a vector for local development.

In this perspective, interdisciplinarity plays an important role, since it can contribute to expanding the boundaries of the field of design towards other areas of knowledge, and together create an alternative to social inclusion. Couto (1991) considers that, in this context, the designer does not design alone, but will help to distribute knowledge so that the population can produce for themselves the things they need. Sharing a similar point of view, Manzini (2008) argues that the designer has a key role for social innovation, considering that he is the most qualified professional to turn ordinary communities into creative communities and make them self-sustaining. It is believed that the designer, through his or her methodologies, can contribute significantly to the development of a community, in which are identified a work force potential and raw materials for a handicraft production, making its handicraft products more competitive not only because of their aesthetic and functional attributes but also for their cultural, social and economic values.

Participatory and collaborative initiatives permeate and connect most of the issues raised in this article: the relationship between design and handicrafts; social innovation as an extension of the collective social design practice, concerned with sustainability and the transformation of the concept of well-being; and finally, the innovative potential of creative communities. It is worth remembering that this process takes place in a horizontal manner, not in a hierarchical way, this meaning that "the person interested in participating of the process becomes empowered by it, and consequently the process allows the distribution of the decisive power in society" (Melo Neto and Frides, 2002, p. 129). This approach is part of an interdisciplinary and collaborative vision, in which the authorship of the product is no longer only of the designer, but of everyone involved in the production process. This is a clear example that illustrates a collaborative and collective process, in which there is no leadership, and therefore it should be understood as a partnership or co-design. The co-design approach is usually related to the engagement of consumers and users of products and services in the design process. It involves actions that are beyond mere collaboration, since they work with the concept and attitude of co-creation.

In this way, the combination of Design with social innovation is capable to uniting popular knowledge, technical and scientific concepts and social organization, which function as effective weapons for the purpose of social inclusion:

Collaborative organizations may have diverse goals and actors, but have a fundamental common trait: all are made up of groups of individuals working together to co-create commonly recognized and shared values. For this reason, we call them, as a whole, collaborative organizations: production and service initiatives based
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According to Sennett, cooperation oils the machinery of getting things done, and sharing with others can make up for what we may individually lack. Cooperation is embedded in our genes, but cannot remain stuck in routine behavior; it needs to be developed and deepened. This is particularly true when we are dealing with people unlike ourselves; with them, cooperation becomes a demanding effort. “Cooperation requires of people the skill of understanding and responding to one another in order to act together, but this is a thorny process, full of difficulty and ambiguity” (Sennett, 2013, p. 10). This effort is a major challenge to designers who launch themselves into these actions with artisan groups. Surely, the designer will come across very different people and realities, but despite thorny, this meeting can be very enriching.

On this issue, Thackara argues that a challenge to cultural policies today is how to build societies with democratic projects shared by all without equalizing all, where the disintegration that rises to diversity and inequalities (between classes, ethnicities or groups) is reduced to differences. “When people on the periphery, ideas and peripheral organizations are combined, this usually results in something interesting and valuable” (Thackara, 2008, p. 267). He also believes that the designer can use this difference of culture, place and time in a positive way and not as an obstacle.

Promoting the change through a bottom up approach is a major challenge, which is even bigger when working with people different from us. The speech, the act of listening and the dialogue become essential tools in the formation of these groups and to an effective performance of the designer. “This work of detection and contemplation is a potentiality in all human beings, annulled by the affirmations of authority” (Sennett, 2013, p. 331).

However, these differences are not only caused by social or cultural inequalities, they may be present in the skills. Community organizations exist and are facing this challenge since the most ancient societies. According to Sennett, nowadays community organizers of workshops have to face this issue, the same way the organizers of community houses did one century ago. The difference is that “Workshops organizers were faced with another kind of difference, the division of labor; their question has been responding to one another in order to act together, but this is a thorny process, full of difficulty and ambiguity” (Sennett, 2013, p. 331). The author also argues that the interdisciplinary thinking was crucial in this process, turning the workshop into a place of dialogical communication and informal association.

Practical examples

Often, in practice, the interaction between design and handicrafts occurs through the action of NGOs, companies, governmental initiatives, organizations that encourage social enterprises, and of university extension program activities. These university extension activities include, in addition to pedagogical projects that encourage integration between handicrafts and design, initiatives that promote social innovation and enable undergraduate and graduate students to practice design in an interdisciplinary way with the community. Some national design institutions have encouraged these processes through research laboratories, for example the Laboratório de Design Solidário-Labsol (Solidary Design Laboratory), linked to the Faculty of Architecture, Arts and Communication (FAAC) of the State University of São Paulo (UNESP), in the campus of Bauru; Laboratório O Imaginário (The Imaginatory Laboratory), linked to the Federal University of Pernambuco (UFPE); and the Rede Design Possível (Possible Design Net), a partnership with the Mackenzie Presbyterian University of São Paulo. In the following section, we describe the project ASAS – Artesanato Solidário do Aglomerado da Serra (Solidary Crafts of the Serra Agglomerate – SCSA), developed by the FUMEC University of Belo Horizonte. This is a good example to understand how the concepts of cooperation and interdisciplinarity are present in the mediation between the designer and artisan groups.

Solidary Crafts of the Serra Agglomerate – SCSA

The SCSA is a productive group of crafts and design that was born in 2007 as an extension activity of FUMEC University, with the challenge to integrate the academic life with the surrounding communities. To initiate the project, The Agglomerate of Serra, a set of villages and slums located in the southern region of the city of Belo Horizonte, in which FUMEC University is also located, was selected. Despite the Agglomerate of Serra, the area is one of the most valuable residential areas in the city, concentrating residents with a high purchasing power. The project had two productive groups: ASAS_modalaje (fashion-lab) and ASAS_aglomeradas (agglomerated), the latter being the only one that is currently active.

The multidisciplinary training in the project was set in order to generate income through the development of products with high added value, incorporating aspects of contemporary design to the urban handicrafts, in an attempt to raise income and improve the quality of life of the project beneficiaries. Urban handicraft is a category of handicraft adopted by Sebrae, a non-profit private entity with the mission of promoting the sustainable and competitive development of small businesses. The idea is to promote the preservation of handicrafts origins, investing in handmade pieces, however with a contemporary touch. This kind of work serves as a supplementary income to professionals from different areas.

Specifically, at the SCSA, the goal was to establish a sustainable process of generating income, exploring the concept of creative and productive autonomy, with focus on the empowerment of the artisans and the community. Within an expanded understanding of solidarity craft, the project developed specific creative methodologies to integrate handicrafts and design in order to enable artisan groups to make singular inventive objects. The productive group agglomerated developed several products such as...
notebooks, shirts, scarves, pillows and aprons, inspired in the favela everyday life. Thus, the created surface design patterns were applied to a variety of products, becoming a form of expression of their culture and territory.

The reason to recount the SCAS project experience on this article is because we consider it an exemplar project, concerning the interdisciplinary actions within the relationship of design and craftsmanship, which have a great transdisciplinary potential. The experience counted with a multidisciplinary team, including professionals from the Architecture, Administration, Design and Psychology fields, who worked most of the time together to ensure the innovation and craftsmanship quality of the group.

Some of the actions of this group of professionals reflect this multidisciplinary approach, for instance, in the proposition of pricing workshops, conflict mediation and even some workshops of creative processes, as these initiatives were based on the perception of a specific situation through proficiency, in several areas of knowledge, and the handicraft was enriched with all the multidisciplinary input.

In the productive group agglomerated actions developed during the creation of the collections had a clear interdisciplinary character, since they sought to transfer knowledge and methods from the design field to the artisanal practice. Sommerman (2006) believes that the interdisciplinary approach is the one in which two or more disciplines intentionally establish new links with each other to achieve a more comprehensive knowledge. In the case of this project, the intention was not to create a new discipline, but to develop a practice of handicraft, which relied on both knowledge, of the design processes and the artisans’ skills.

It is important to mention, with respect to SCAS and any other project concerning design mediation in handicrafts practice, that this type of initiative has what can be considered a transdisciplinary attitude (Sommerman, 2006), a concept presented in the Charter of Transdisciplinarity, a document elaborated during the 1st World Congress of Transdisciplinarity that occurred in 1994 in Portugal, Convento da Arrábida. In the document the idea of openness and acceptance of the unknown is brought, advocating that we must be rigorous in our argumentation, be opened to the unknown and be tolerant in order to accept ideas and truths contrary to ours, at various moments. Some of these moments are based in the pillars of transdisciplinarity, since they required considerations about their different levels of reality, the inclusion of the other in the process, in an equal way, especially in the decision-making levels, and finally, the pursuit to understand the complexity involved in such projects.

**Conclusion**

The central ideas discussed in the article concern the social importance of artisanal production, its connection to sustainable practices and how to incorporate the designer mediation in innovative social processes, in addition to emphasizing the formation of cooperative groups. The text was woven and intermediated by the practices of multidisciplinarity, interdisciplinarity and transdisciplinarity.

We argue that in relation to its origin, the design area is already configured as multidisciplinary. In its maturity, it has evolved progressively becoming an interdisciplinary area, represented by the meeting of disciplines that seek dialogue and interaction, even when submitted to an actual fragmented education system model. The dialogue nature of design, which facilitates the interaction with other fields, favored and strengthened the design, thus developing strategic solutions that meet the challenges of the contemporary world.

We have also confirmed, with this study, that the interdisciplinary thinking was and remains essential in the formation of cooperative groups. In addition, we observed that social design leads to social innovation and that the designers, by joining their skills to these cooperative groups, contribute to transcend the interdisciplinary thinking to a transdisciplinary one.

A transdisciplinary approach that is necessary in participatory and collaborative initiatives aimed at the practice of co-production between designers and artisans, initiatives in which the designers must implement these transdisciplinary principles. However, the designers’ actions often still only happen effectively at the level of multidisciplinarity and interdisciplinarity.

Having Morin ideas as reference, Lorieri (2008) explains that interdisciplinarity means exchange and cooperation, and because of that, it turns into something organic. In this case, coming close to a transdisciplinary idea, which is generally characterized by cognitive schemas that cross subjects. This is an initial idea to understand transdisciplinarity through Morin’s paradigm of complexity (Lorieri, 2008).

Design is a complex task in itself, since it integrates issues that go beyond the simple act of designing. Cardoso reflecting about the complexity of design explains that “Design is a composite system of many elements, layers, and structures, in which the inter-relations shape and continuously redefine the functioning of the whole” (Cardoso, 2012, p. 25). Therefore, knowing the role of the designer in these inter-relations that compose the complexity of the relationship between design and handicrafts, and the designer collaboration on projects such as the one cited above, is relevant to let us think design in an expanded way, beyond the existing possibilities. It is a matter of thinking and producing design in a more social and political way.

The development of design actions in a more collective and collaborative manner is part of the strategic role of design for social innovation and inclusion. According to Manzini (2008), to generate a new idea, to adapt it, and creatively manage its existence, or even just actively participate in an ongoing initiative, require a strong commitment in terms of time and personal dedication. Although this almost heroic aspect is exactly one of the most attractive aspects of these initiatives, it is also an objective limit to its long-term existence and its possibilities of (re)application and adoption by many.

Finally, it is worth saying that what is most interesting about the relationship between design and craftsmanship is that each of us can participate and contribute to this process in a different way, depending on the context, as we intend to exemplify in this article. Significant changes can begin with ideas and activities that can help improve the quality of life of a limited number of people. Such actions,
if they are planned in an assertive manner, may represent major changes to these communities and the propagation of these ideas, even in a slow step-by-step way, they can extend the opportunities of transformation to a greater number of citizens. By affecting individuals and organizations at a local level, it is also possible to affect all social systems of a country or a society.

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