

Necesidad de la formalización del diseño artesanal para la intervención en la producción indígena en México

Need for the formalization of artisanal design for intervention in indigenous production in Mexico

Necessidade de formalização do design artesanal para intervenção na produção indígena no México

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Resumen

La producción artesanal en México continúa siendo una actividad económica fundamental para el desarrollo social de sus poblaciones más vulnerables, de ahí que la política gubernamental para la promoción de la producción artesanal se haya enfocado en la intervención del diseño profesional en las poblaciones indígenas mexicanas. Por lo tanto, el objetivo central de esta investigación fue establecer el alcance de la práctica del diseño profesional para abordar los desafíos que enfrentan los productores artesanales indígenas en México. Para ello, se desarrolló una investigación documental y de campo con un enfoque cualitativo en dos pueblos indígenas: los purépechas y los náhuatl. Se identificaron cuatro situaciones que desencadenan la producción artesanal: diseño intuitivo, diseño difuso, diseño bajo demanda y diseño integrado. Asimismo, se estableció que el alcance de la práctica de diseño en la producción artesanal indígena mexicana se basa en contribuir para que los productos artesanales lleguen a mercados

que se hallan geográfica y culturalmente distantes, así como contrarrestar la apropiación indebida de la producción cultural indígena mediante la formación de profesionales del diseño con un perfil transdisciplinario. Por tanto, se concluye que es necesario formalizar el diseño artesanal como un área emergente de la disciplina del diseño para la construcción epistemológica de herramientas útiles que permitan resolver los problemas de la producción material de los artesanos.

Palabras clave: artesanías, formación en diseño, práctica del diseño, población indígena, producción artesanal.

Abstract

Artisanal production in Mexico continues to be an essential economic activity for the social development of its most vulnerable populations. From this perspective, the government's policy to promote artisan production has been the intervention of professional design in the Mexican indigenous populations. Therefore, the main objective of this research was to establish the scope of professional design practice to address the challenges faced by indigenous artisan producers in Mexico. For this, the authors carried out documentary research and field research with a qualitative approach on two indigenous peoples: the *Purépechas* and the *Náhuatl*. Afterward, four situations that trigger artisan production were identified: intuitive design, diffuse design, design on demand, and integrated design. It was then established that, the scope of the design practice in Mexican indigenous artisan production is to contribute to artisan products reaching markets geographically and culturally distant from their production context, and to counteract the misappropriation of indigenous cultural production; through the training of design professionals with a transdisciplinary profile. It is concluded that formalizing artisan design as an emerging area of the design discipline is necessary for the epistemological construction of useful tools to solve the problems of artisans' material production.

Keywords: handicrafts, design training, design practice, indigenous peoples, artisanal production.

Resumo

A produção artesanal no México continua a ser uma actividade económica fundamental para o desenvolvimento social das suas populações mais vulneráveis, pelo que a política governamental para a promoção da produção artesanal tem-se centrado na intervenção do design profissional nas populações indígenas mexicanas. Portanto, o objetivo central desta pesquisa foi estabelecer o escopo da prática profissional do design para enfrentar os desafios



enfrentados pelos produtores artesanais indígenas no México. Para isso, foi desenvolvida uma investigação documental e de campo com abordagem qualitativa em dois povos indígenas: os Purépecha e os Náhuatl. Foram identificadas quatro situações que desencadeiam a produção artesanal: design intuitivo, design difuso, design sob demanda e design integrado. Da mesma forma, estabeleceu-se que o âmbito da prática do design na produção artesanal indígena mexicana se baseia em contribuir para que os produtos artesanais cheguem a mercados geograficamente e culturalmente distantes, bem como neutralizar a apropriação indevida da produção cultural indígena através da formação de profissionais de design com uma experiência perfil transdisciplinar. Conclui-se, portanto, que é necessário formalizar o design artesanal como uma área emergente da disciplina de design para a construção epistemológica de ferramentas úteis que permitam resolver os problemas da produção material de artesãos.

Palavras-chave: artesanato, formação em design, prática projetual, população indígena, produção artesanal.

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Introduction

Artisanal production continues to be an economic activity that employs many people around the world, which happens amid the unequal development of nations (Télam digital, 2017). It is estimated that an average of 9.4% of employment is in this sector (Grobar, 2019), which is why it is considered a means of development for the most vulnerable populations (Azuela Flores and Cogco, 2014; Grobar, 2019). Likewise, many design professionals find a business alternative in artisanal production, although these initiatives operate under the suspicion of promoting non-emancipatory interests (Bonsiepe, 1985) that do not take into account the sociocultural aspects of these groups, so, they end up imposing ideas and concepts not related to handicraft (Lavin, 2019). Furthermore, in many cases, artisans are treated as strategic suppliers who are used for extractive practices and alienation of manual labor, instead of considering them authors of their material production (González-Rodríguez, 2021; Télam digital, 2017). This situation strips them of their economic and creative rights in their work, which emphasizes marginalization, inequality, and dependency.

Now, the development of artisanal objects in Latin America dates back to the period before the conquest of the continent and is distinguished by its orientation towards local development linked to the manifestations and elements of nature (Shultz-Morales, 2008). Initially, artisanal production only satisfied the needs of the domestic-family unit, without specialization and deeply linked to agriculture; However, gradually, a variant of this industry was oriented towards commissioned trade, which would eventually give rise to mercantile production and the

development of a wide variety of objects marketed directly by the producer (Turok, 1988).

Specifically, the registration of interventions in indigenous handicraft production occurred with the arrival of the Spanish, since forms of organization, techniques, and regulations were imposed through the installation of monopolistic workshops, which limited the form of indigenous production to domestic units in the dominated populations, and incorporated the native artisan as an apprentice in the Spanish workshops. This led to a territorial division of artisanal labor and its consequent specialization, which caused a mixture of skills and ways of doing things, particularly in the 19th century (Novelo, 2004). Later, with the Industrial Revolution, at the end of the 18th century, the productive capacity of steam energy impacted the form of artisanal production and displaced it as a means of creating goods and merchandise. From the analysis of the literature review on design intervention in artisanal products, two trends stand out. The first—identified as remote design, with a short-term focus—proposes external solutions to the artisanal context based on imported technology or changes that depend on the external actors' intervention for implementation and continuity, where the participation and development of the artisan is not central (Alexandre *et al.*, 2017; Ceccarelli, 2019; Chudasri *et al.*, 2020; Gumus Ciftci and Walker, 2017; Han *et al.*, 2019). In contrast, the trend identified as co-design aims to address the complex problems of designing and marketing artisanal products independently of external actors and technology (Hernández-Girón *et al.*, 2004; Kang, 2016; McHattie *et al.*, 2018; Suib *et al.*, 2018 *al.*, 2020).

In the case of Mexico, some researchers have focused on the design and innovation processes in various artisanal companies from the market and competitiveness approach (Hernández-Girón *et al.*, 2004, 2007). However, although the relationship between design and handicrafts is very long, research in this regard remains insufficient (Albarrán-González, 2019; González-Rodríguez, 2021).

On the other hand, regarding the main base of the Mexican artisanal sector, it can be stated that it is made up of sole proprietorships, family economic units, workshops, or small or medium-sized cooperatives, generally located in rural indigenous and non-indigenous towns, although there are also urban domestic units (Azuela Flores and Cogco, 2014; Novelo, October 6, 2012). This artisan activity, therefore, is usually associated with poverty and lack of formal education (Azuela Flores and Cogco, 2014; González-Rodríguez, 2021), a situation that has sought to be addressed through welfare with government policies to social development (Azuela Flores and Cogco, 2014). However, the result has been a disintegrated sector disconnected from the market specificities, isolated by intermediaries and the interventionism of governmental and non-governmental organizations (Hernández-Girón *et al.*, 2007).

According to Novelo (October 6, 2012), since 1921, interference in artisanal production in Mexico has aimed at the indigenous industries' regeneration through the manufacture of luxury

objects with refined decoration, a recurring practice that neglects, or ignores market problems and the importance of culture, which introduces changes in indigenous habits and aesthetics (González-Rodríguez, 2021; Novelo, October 6, 2012). For example, since the end of the revolutionary period (1915-1917), an interest was awakened in valuing artisanal products as a tribute to national creativity (Novelo, October 6, 2012; Shultz-Morales, 2008) and for the consumption of the middle class too. From then on, the professional designer directs the artisanal workforce from an academic privilege position that, supposedly, authorizes him to impose his knowledge and a Westernized approach (González-Rodríguez, 2021). According to Turok (1988), the result has not been what was expected, since only 5% of artisans feel capable of making quality improvements in their products, 30% are somewhere in between, and 65% do not make any satisfactory changes.

On the other hand, the definition of the *craft* term has not yet reached a full consensus. In general, it is used to refer to handmade objects in any context, with any material or for any purpose, which generates negative repercussions for indigenous producers, since it trivializes their production, both material and cultural, and makes it cheaper in competitive markets.

In this sense, the United Nations Educational, Scientific and Cultural Organization (UNESCO) (2011, 2018) initially defined crafts as objects made by hand with raw natural materials, and later, recognized artisanal techniques as intangible cultural heritage, so he proposed another concept that separates intellectual activity from the tangible production of his work, to highlight the immaterial qualities immanent of the tangible object (Novelo, October 6, 2012). In summary, for this organization, craft is any handmade object that uses natural raw materials and whose distinctive element is intangible. However, this meaning is confusing, since it seeks to encompass a multicultural reality corresponding to different levels of development.

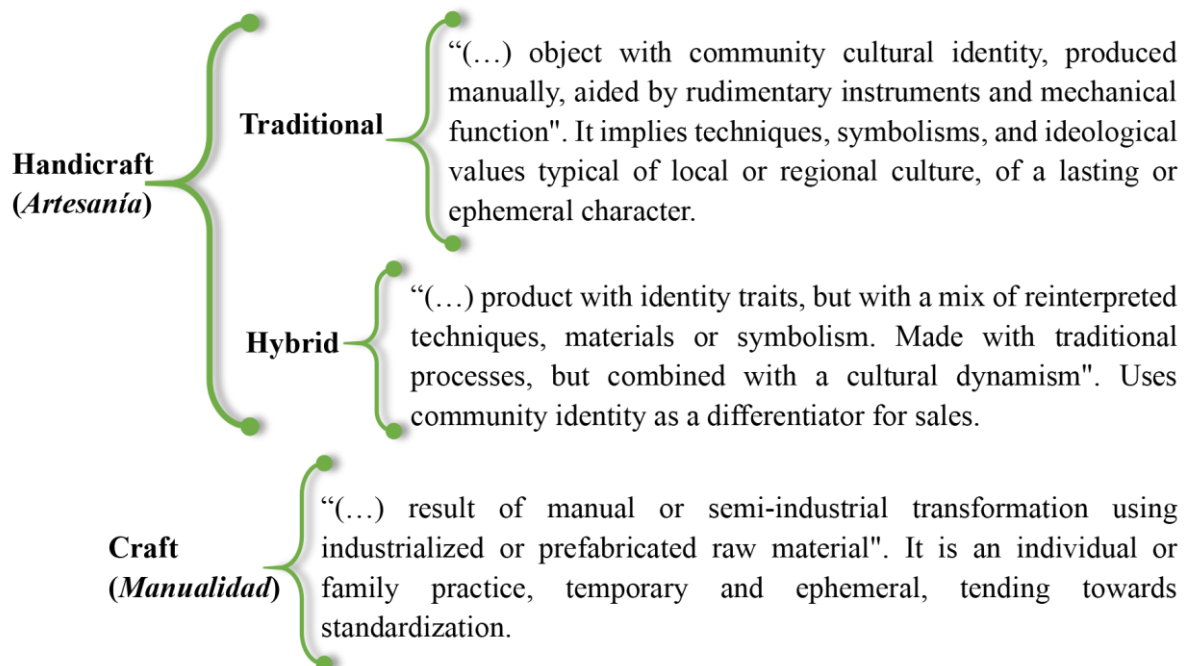
To try to resolve this confusion, in Mexico, Fonart (National Fund for the Promotion of Crafts) generated a manual with definitions to distinguish handmade objects according to their characteristics, that is, handicraft (*artesanía* in Spanish) and craft (*manualidad* in Spanish). Based on Figure 1, in this document, it is understood that handicraft is the result of predominantly (but not strictly) manual work, which implies a set of tactile knowledge about materials and tools combined with motor, intellectual, and creative skills, transmitted both in social and family environments. This product differs from other manual objects due to its character of identity, inserted in a specific social and geographical environment, which transcends due to its historical, social, and economic importance, both for minority and dominant population groups.

Handicraft activity, furthermore, is a legacy of intelligence that goes back hundreds of years; It is, therefore, an act of cultural—and political—resistance to globalizing processes, which implies an appreciation of human beings, nature, and the divine, as well as an attitude of pride

in know-how (Novelo, 6 October 2012). However, it is important to highlight that what is truly distinctive between traditional artisanal objects and others derived from manual processes is the community construction of their techniques and symbolic content. Consequently, the changes that are incorporated are gradual, since they require the recognition of the community inhabitants, and their preservation depends on their transmission to new generations.

For all of the above, research efforts on the topic are justified, because artisanal production increasingly responds to income needs, which causes the paradox between safeguarding heritage and thinking about design for the future (Suib et al. *al.*, 2020). For this reason, the *hybrid crafts* category arises, through which artisans have expanded and oriented their production towards commercial objectives to target markets culturally distant from those of their production.

Figure 1. Artisanal differentiation manual (definitions)



Source: Own elaboration based on the National Fund for the Promotion of Crafts (Fonart) (2014, p. 14)

Compared to mass production, artisanal production is perceived as anachronistic and associated with rudimentary techniques and aesthetics trapped in time; However, a single artisanal object brings together centuries of technological evolution and a sophisticated mastery of the resources that artisans use to shape a community identity. Therefore, it is necessary to avoid simplifying the problem of material production of artisans based on Western values (Lavin, 2019), because handicrafts have not been understood in modern societies since the advent of the Industrial Revolution. Any object has the potential to transcend materiality to the dimension of ideas— from which it emerged—through its imprint. However, it is necessary to establish a reflective

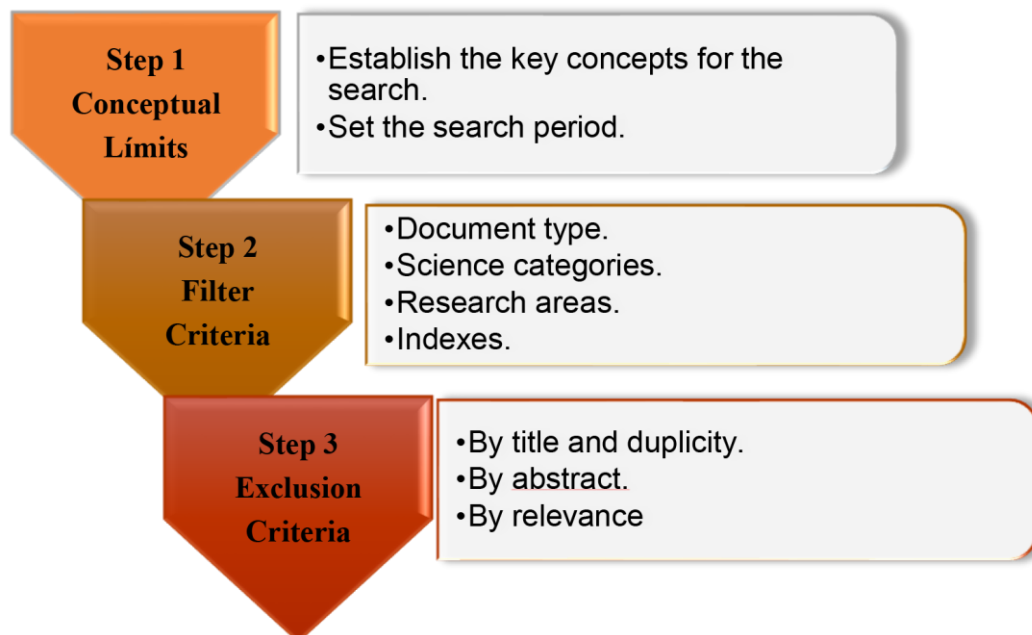
and active dialogue with the objects and their creation processes, which implies a rhythm that is not modernity. Therefore, the central objective of this research was to establish the scope of design practice to address the challenges faced by indigenous artisan producers in Mexico.

Methods

To achieve the proposed research objective, a documentary and field investigation was carried out with a qualitative approach in two indigenous peoples: the Purépecha and the Náhuatl.

About the documentary review. Before defining the research question, a traditional literature search was carried out on the Web of Science (WOS) following the steps illustrated in Figure 2. In addition, key informants were consulted (for the Mexican case) through exploratory interviews. applied to historians, designers, engineers, anthropologists, and indigenous producers led to the discovery of more related literature. In this way, the most relevant theoretical and background elements for the study were identified.

Figure 2. Steps for searching traditional literature in the WOS



Source: Own elaboration based on Pret and Cogan (2019)

About field research. Data collection was carried out in two federal entities based on their convenience and methodological opportunity. Thus, the research was divided into two contexts: the Purépecha territory, in the state of Michoacán; and Nahuatl in the state of Puebla.

About data collection techniques. The semi-structured interview and focus groups were selected. These instruments were applied to record the most relevant meanings for the understanding of the participants' worldview (Álvarez-Gayou, 2003; Checkland and Poulter, 2010), as well as for the discussion of their concepts, beliefs, and experiences.

About the selection of participants. For both territories, a method of selecting participants by convenience and snowball effect was used, based on key informants chosen based on the following criteria: ethnicity, residence in the town, artisanal production and commercial activity.

About the interviews. They were applied to decision makers for exploratory and interpretive purposes following the semi-structured interview guide and the order of questions recommended by Hernández Sampieri *et al.* (2010). Additionally, pilot tests were conducted to correct confusing questions and ambiguous terms.

About data processing. The collection, processing and its corresponding analysis occurred practically at the same time (Hernández Sampieri *et al.*, 2010). For its collection and processing, the soft systems methodology was used (Checkland and Poulter, 2010).

Results

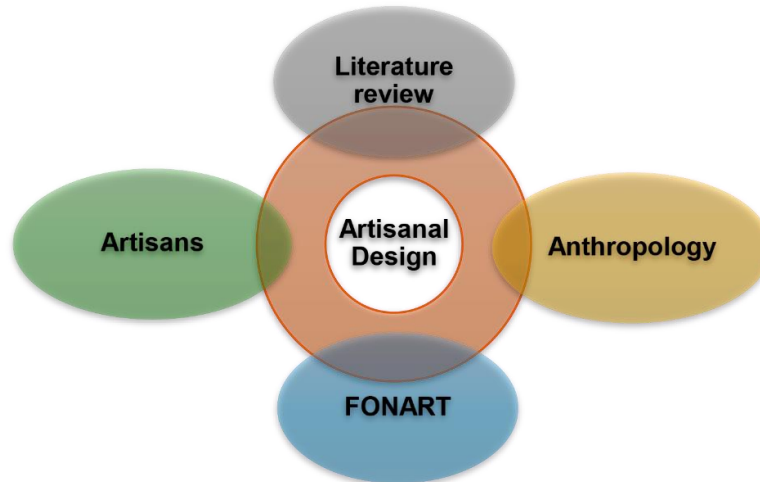
In a capitalist economy, design objects form the economic basis of society in terms of material relations, as well as sensible representations of the values and attitudes present between producers and end users. In this context, the role of the designer is crucial as a cultural professional, since he is located at a neural point within the system of produced objects (Bonsiepe, 1985). Although design can be defined as the complex and measured process of organizing industrial development, a definition of design linked to its idealistic contents must include the cultural dimension in terms of its possibilities as a signifier (Selle, 1975). Therefore, design is shaped by the values of the dominant culture in a given society, since this constitutes the framework of its praxis, shaped by the interests under which merchandise are planned, produced and used.

Based on the above, the scope of design practice is human actions that synthesize different demands and conditions, even in conflict, to explore the possibilities of creative proposals that improve social needs. Due to its multidisciplinary nature, it uses any useful process, method or tool to transform perceived reality (Konda *et al.*, 1992). Design has a broad and deep meaning as a cultural phenomenon because its action constructs and redefines the discourses and relationships between people and objects in a given society. Therefore, design is the space for reflection on the origin of the object and its insertion into the environment; It is where the being and ought to be of objects are imagined and synthesized, and the space where all possible worlds are thought of.

Based on the method of data collection and processing, in the following section all the perspectives involved in the design applied to the artisanal object are presented and described, that is: 1) view from the literature review, 2) view from anthropology, 3) view from Fonart and

4) view from artisans. This, together, makes up the artisanal design environment (figure 3).

Figure 3. Worldviews involved in artisanal design



Source : Own elaboration based on Checkland and Poulter (2010)

View from the literature review

According to Shultz-Morales (2008), six design intervention approaches in the artisanal product are identified:

- The conservative. Oriented towards the protection of handicrafts to keep them pristine against any external influence, especially from design.
- The beautician. Labels artisanal activity and its production as popular art as opposed to the art of dominant cultures.
- The productivist. Designers or artists consider the artisan as a qualified worker for their projects and then market the objects under their brand.
- The essentialist. It assumes an anti-industrial romantic behavior and considers that artisanal activity is the basis and origin of current Latin American design.
- The paternalist. It considers artisans as political capital through welfare support programs and acts as a commercial intermediary for merchandise.
- The innovator. Promotes actions together with artisans to improve the bases of their subsistence and autonomy.

View from anthropology

The perspective of Escobar (2016) was selected, who conceives artisanal activity as a political act immersed in the inexhaustible struggles for the defense of the territories occupied by indigenous peoples, and their paradigms; That is, it considers that it is an ontological struggle that transcends daily survival. His perception is inclined to strengthen the autonomous forms of construction of other worlds to generate conditions that favor the social and cultural changes desired from the territories, that is, to change traditions traditionally (Escobar, 2016). For an

autonomous design, he presents five theses:

1. Each community exercises its design.
2. Everyone practices their knowledge.
3. The community establishes a way of investigating and learning about itself.
4. Each design process involves a problem and its possibilities.
5. It may involve building a model that generates the common problem.

According to Escobar (2016), when creating tools for design, ways of being are also created, since the conditions of human existence and the conditions for the design process itself are mutually determined. Furthermore, each tool is ontological technology to the extent that it opens the way to new ways of doing and being. This triggers the evolution of paradigms beyond aesthetic problems that address what is here and what is outside.

View from Fonart

This is a Mexican federal public agency for artisanal activity promotion to contribute to improving the income of indigenous artisans and their families, through the action of social development programs. It designs and executes promotion, marketing, research, and regulation policies in order to disseminate the national cultural heritage; In addition, it accompanies artisans from production to points of sale (Fonart, 2021). In this sense, González-Rodríguez (2020) states that, since the 1970s, this agency has maintained a vision of rescuing artisanal techniques by promoting a hierarchical relationship between the professional designer and the artisans, since it is the designer who directs artisanal work based on their academic training, which is legitimized by the government.

To expand this vision, the experience of the Fonart workshops leaders was incorporated into this research, who provide elements to understand the scope of the institution's intervention in the indigenous context. In this sense, although Fonart supports the content of the workshops based on research, the workshop leaders are hired for each project without prior training. They are the ones who manage the budget assigned to the workshop, with which they pay for: materials, transportation, accommodation, fees and any requirements to carry out the workshop. The entire logistics, evaluation and execution process is in the hands of the workshop leader. Fonart buys the products resulting from the workshop at a price lower than their real production cost, with no room for negotiation.

View from artisanal producers

After field research, it was possible to identify that, for artisans, their production is an important part of their complex economic system, closely related to the environment, especially when combined with agricultural activities. The perception that artisans have about design is that it consists of changing some things to adapt the product to the users or consumers tastes. They know that, with these actions, they increase the chances of selling their merchandise and,

perhaps, setting a better price for them. However, many artisans claim that they do not know how to decide what to change and are therefore afraid to invest in the production of non-traditional handicrafts. This is the main reason why they choose to produce on demand and let the designer define the changes and find the marketing channels. Although in many cases, artisans doubt about the changes requested by designers, they carry them out because the work is paid for in advance, which reduces the risks for them.

Artisans prefer to establish horizontal collaborative relationships. They recognize the importance of transferring knowledge to trigger learning and growth processes for their organizations and members; Furthermore, they are usually open to sharing their knowledge, if a relationship of trust is established with external actors. In this sense, the indigenous artisans of Mexico, who incorporate the intangible but manifest into their interpretation of the world, frequently subject external actors to a series of tests to verify whether they are aware of the broad purpose. The future of the relationship established will depend on the outcome of this. However, once the tests are over, restless artisans eager for challenges find a space to grow, discover and test themselves by working with designers; as long as it is done horizontally, with recognition, trust and respect.

The design problem, therefore, is based on identifying and interpreting, in the best possible way, what society needs, and for this each design discipline has its logical procedure. However, most of the known design methods are far from the reality of the artisanal context, since, within the horizon of these methods, the differences between design problems in countries whose development is based on superindustrial production are not recognized, and those of countries (or communities) whose interpretation of development is antagonistic to productivism (Bonsiepe, 1985).

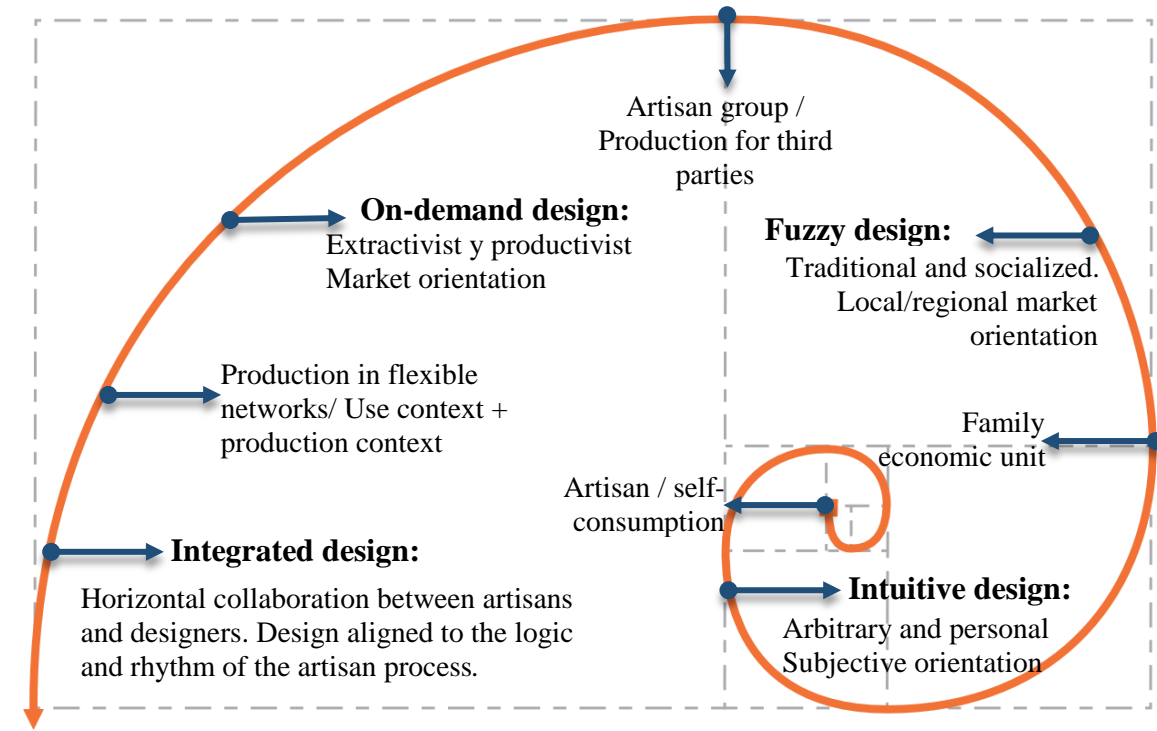
Regarding the above, based on field research and based on Bonsiepe (1985) and Manzini (2015), four situations (or design problems) that trigger artisanal production are identified. Figure 4 presents the evolution of the Mexican artisanal design process based on these situations. From the perspective of Checkland and Poulter (2010) and using the Fibonacci sequence and the golden ratio (Rincón, 2004), there are four phases: intuitive design, fuzzy design, on-demand design, and integrated design. It can be seen as a continuous, evolutionary and perfectible process; Therefore, these phases do not replace each other, but rather one contains the previous ones, each one with a specific scope.

Intuitive Design Features

It corresponds to the stage of individual/family artisanal production for self-consumption and personal expression. It is learned through observation, imitation and practice with the playful and experimental discovery of materials. By their nature, the decisions that these objects prefigure are arbitrary, not systematized, and intuition and personal taste prevail, so their sale

is usually unexpected. It often happens that the artisan receives an offer for his product while the producer himself uses it. This experience gives rise to the next evolutionary stage of artisanal design.

Figure 4. Evolution of the Mexican artisanal design process



Source: Own elaboration based on literature review, interviews and the Fibonacci sequence (Checkland and Poulter, 2010; Rincón, 2004)

Fuzzy Design Features

It corresponds to the stage of artisanal production for sale in local and regional markets. This type of product responds to the needs of community life governed by tradition. Its productive process can be individual, family or in networks; and the decisions that prefigure the object are based on conventionally accepted preferences within the community. Artisans offer their products at fairs organized by public institutions in different states, which implies assuming the risk of an initial investment that, in many cases, is liquidated by necessity. This results in middlemen hoarding goods to resell them in markets that producers cannot reach, so middlemen have the ability to set buying and selling prices, a phenomenon that leads to the next stage.

On-demand Design Features

It corresponds to the stage of artisanal production for sale in the tourist and ethnic fashion market. It responds to the conditions imposed by external agents to the community, which induce changes in processes, techniques and materials to adapt products to the taste of distant markets from the production context or to reduce their cost. These agents operate under an extractivist logic and with productivist purposes, for which artisans are treated as suppliers of

specialized and cheap manufacturing. All of this negatively affects the final product. To achieve a successful artisan process, it is needed personal challenge, the joy of creating, curiosity, and the artisan's state of mind.

In cases where the order is accepted and the delivery time is met, the workload is distributed among community members, through flexible networks or work cells based on trust and family ties. Artisans do not prefer to work under this model, since the adjustments are usually inconsistent, generate waste and require additional efforts; However, they agree because it represents less risk and immediate income for their families. It should be noted that these products are not regularly adopted as part of community life, although, in fact, production for self-consumption is decreasing, since they prefer to sell them.

Integral Design Features

It corresponds to an area of knowledge that arises when introducing principles and foundations of professional design in artisanal processes. It results from the horizontal collaboration between artisans and designers interested in adjusting or generating products other than traditional ones and in the construction of, presumably, ethical distribution channels. These relationships are not always successful, since a close and long-term social interaction with the producing groups is required, as well as sufficient knowledge of the artisanal production processes, respect for tradition and empathy for the indigenous culture and worldview, its logic, and rhythms of knowledge transmission, for which designers are generally not prepared.

Discussion

After the results of this research, we agree with Konda *et al.* (1992) and Kang (2016) when they question the universality of methods design and tools, since what is culturally desirable and technologically possible in a given context, may not be so in another, as explained by Hussain *et al.* (2010) about the differences that hinder the practice of design with marginalized groups, such as sociocultural, religious, financial, organizational, among others. In this sense, a design arises that focuses on minority cultures, marginalized and despised by the dominant culture and that were excluded from the modernizing project. This translates into the recovery of ethnic content as a source of aesthetic and symbolic resources, and the revaluation of its meanings for design. Regarding the above, and based on Jagtap (2019), it is identified that the most recurrent design intervention is the one that seeks to refine products to facilitate their insertion into elitist markets, although without reflecting on the long-term impact on producers. On the other hand, according to Corsini *et al.* (2022), the practice of co-design within vulnerable populations promotes the identity of participants.

Returning to the intervention approaches in craft production described by Shultz-Morales

(2008), it is identified that it is necessary for these design interventions to address the innovative approach, through actions aimed at the emancipation of artisans and the strengthening of their enterprises. Likewise, move away from conservative and essentialist approaches, since romanticizing artisanal activity may be unrealistic because all creation processes are dynamic and respond, coherently, to their internal mechanisms. On the other hand, the results show that productivist and paternalistic approaches may have contributed to the backwardness and isolation in which artisans find themselves in Mexico; due to their extractivist, hierarchical and neocolonialist practices. Finally, although it is recognized that the aesthetic interventions of the artisanal object have contributed to preserving and recovering traditional techniques, as well as promoting the final product in markets with high purchasing power; It should also be noted that it can be counterproductive, since it places handicrafts in elitist and commercial markets that are culturally distant from the contexts of their production, which makes their interpretation by artisans impossible.

In this regard, Chaves (2006) states that design serves all types of human creation needs whose purpose is to generate social value. For his part, Stolterman (2021) maintains that the strength of design practice is its potential to develop creative and innovative solutions to complex problems. In this sense, for the artisanal object to overcome the orientation towards the tourist market and recover its identity as a satisfier of tangible and intangible needs, it is necessary to articulate, from the design, a correct communication of its identity components (use of objects, symbols and meanings) towards the population that lives outside the producing communities.

When implementing design processes with artisans, non-imposing disciplinary principles and approaches must be established to develop skills and infrastructure where artisans lead their design processes (Alexiou *et al.*, 2022). Likewise, it is necessary to promote integration mechanisms of the entities that make up the artisanal productive structure, present at both the micro and macro levels (Alexiou and Zamenopoulos, 2008). Due to the above, as Hussain (2010) and Alexiou *et al.* (2022) point out, designing with marginalized groups is not limited to solving a specific practical problem; rather, it is possible—and desirable—to transfer design knowledge to promote the emancipation of participants and improve their ways of life (Lee, 2008). However, the co-design trend is little explored because focusing on the participants and their interaction with the productive context requires a deep and longitudinal immersion by the external actor, as in the research of Hernández-Girón *et al.* (2004), McHattie *et al.* (2018) and Corsini *et al.* (2022).

For this reason, designers must act as facilitators of horizontal discussions (Aguirre *et al.*, 2017) around a design practice coherent with the reality of production, and to identify, with the active participation of artisans, the epistemological elements capable of being modified for the construction of a process that responds to their productive needs (Bonsiepe, 1985). In this sense,

we agree with Kang (2016) about the positive effects of co-design practices, which emphasize understanding the relationships between actors and the given context. We also agree with Corsini *et al.* (2022), who affirm that professional designers must understand the aspirations and living conditions of the intervened communities.

Along with the above, the increasingly evident environmental imbalances inherited from growth models based on mass production have led designers and companies to return to the foundations of the so-called social *design*, proposed by Papanek (1977) more than 40 years ago. This incipient notion of degrowth gives rise to a design movement with the perspective of promoting the transition towards another logic of production and consumption. It questions economic growth as the main objective of societies, articulating a political vision and a philosophical, cultural, ecological and economic critique, in opposition to predatory extractivism, unlimited growth and developmentalism.

Finally, Manzini's (2015) argument states that we can all design, although not all competently. This is relevant because of the potential to rethink design in collaboration with non-experts for the construction of a new practice. Suib *et al.* (2020) describe this potential as the opportunity to make knowledge and collaborative efforts between artisans and designers explicit. From this perspective, design transcends the creation of products towards the processes of building relationships between different actors (Corsini *et al.*, 2022), resulting in instruments to promote local cultures in the global context. In the words of Escobar (2016), these are enabling infrastructures, which correspond to what Manzini (2015) calls *integrative solutions*; that is, cognitive, technical and organizational instruments to increase the capabilities of non-experts and generate a positive evaluation effect. These perspectives place design professionals before the possibility of becoming auxiliary agents in projects of social change.

Conclusion

After documentary research and field research, it was identified that the scope of design practice in indigenous artisanal production in Mexico aims to contribute to artisanal products reaching markets that are, geographically and culturally, distant from its production context; as well as counteracting the misappropriation of indigenous cultural production through the training of design professionals with a transdisciplinary profile. It is concluded, therefore, that the practice of design could improve the design capabilities of artisans if there were a professionalization aligned with the logic of their production processes, to have tools, foundations and epistemological approaches that allow them to reflexively consider, what modifications to make and why.

Likewise, it was identified that the challenge of building knowledge on design for distant

markets with indigenous producers is underestimated, since until now, little has been done to address this need for their benefit; especially, if the colonialist logic is reproduced through which native people are perceived as backward and subjects of charity and rescue. In this sense, the design of artisanal products must be considered as an emerging area of design that requires its own epistemological construction, with the participation, and for indigenous artisans, in order to solve the design problems of their material production.

To achieve this, it is necessary to overcome the apparent antagonism between heritage conservation and its commercialization, so that progress can be made towards the consolidation of endogenous technology and design. This implies breaking the vicious circle of dependence and submission, through the symbiosis between artisans and designers, facing the design needs in indigenous production in Mexico. While this certainly seems unrealistic, especially in the short term, the possibility needs to be addressed as artisans pay the cost of keeping traditions alive.

The evidence of this research, on the other hand, shows that artisanal production tends to work organized in economic units, which is why they face difficulties that the discipline of design could contribute to solving, although an epistemological construction aligned to the problem is lacking. Given that the various areas of design show significant variations, in the case of design applied to artisanal products, the methodological and programmatic rigor that exists for other design practices cannot be dispensed with.

Because the reality of the indigenous peoples of Mexico demands professional attention, long-term commitment and availability for support, the training of designers capable of contributing with more than just goodwill and a clear awareness of their professional responsibility is required. In this sense, it is considered that designers involved in indigenous artisanal production must be able to understand the complex social, environmental, economic, technological, cultural, historical, and religious relationships of the production context. In short, the area of artisanal design must be transdisciplinary.

From the above, we must assume the existence of a relationship between the design context and its methodology as a dependent variable of the first and, consequently, the existence of an alternative practice to the hegemonic status quo *in* each context. In this sense, the contribution of design to improve social demands must transcend the application of formal methods to promote endogenous processes of transformation and local appropriation of design methods. This implies that the design researcher critically interprets his or her knowledge when addressing handicrafts and their production process, preserving what is useful and facing the existing theoretical and procedural gap. Furthermore, it must be able to contribute with elements of the observed reality through the co-construction of knowledge with the participants, where the researcher is part of the phenomenon studied, assuming a role of facilitator not protagonist.

Future lines of research

As anticipated in the body of this document, it is recommended that future lines of research focus their attention on generating design methods consistent with the nature of the artisanal object, as well as methods of intervention in the production context. Likewise, it is necessary to organize existing methods and models for design in a correlational matrix that highlights their scope and contexts of use. In theoretical terms, we must move towards the conceptualization of the artisanal object from the perspective of design beyond the means of production; For this, it could rely on the discipline of design anthropology.

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