



# *Analysis of the confluence of social perception and environmental habitability for public spaces of indigenous communities of the South Coast of Jalisco, Mexico.*

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## **ABSTRACT**

It is reflected that the worldview of the inhabitants of an indigenous community is a safeguard of their heritage and values as a civilization. They are aware of the ecological systems that order the relationship between meteorological variables and the reproduction of wild life of plants and animals; therefore, they are a priority factor.

The purpose of this study was to analyze and classify manuscripts of theoretical aspects of indigenous communities, worldview, public space and environmental habitability; to write the review article and contemplate the need to take extreme precautions as a collective group, for the care of natural resources and risks caused to the planet by the climate change of the 21st century. This has caused an acute versatility of health, well-being and habitability problems, added to this, a lag in the economy that compromises future generations and indigenous communities. For this reason, it is considered a priority to inform the population and public bodies of the results of the investigation in turn, with the aim of correcting this harmful item for human beings and their habitat.

## **INTRODUCTION**

The social perception and environmental habitability of public spaces refer to a balance between the emotional, physical sense and climatic conditions; accordingly, the inhabitants of indigenous communities reflect the importance of caring for their ecosystem, managing natural resources and making optimal use of their lands. Its social, political, cultural and customs organization mark a unique identity in its communal life.

In addition, it is valued that their rituals are focused on the good rains, taking care of their crops and their descendants as an efficient model of life. This worldview orders the unification of diverse interests towards the community management of benefits and support by governments and public or private organizations.

It is appreciated that the indigenous people of Western Mexico are those who reside in the places of greatest ecological value, it is decisive that their peoples assume a role of conservation of their habitat. Their traditions, beliefs and practices are indispensable to maintain and care for biodiversity, ensure the protection of their immediate environment and promote credibility towards society for the care and preservation of the environment. Therefore, it is understood as a movement of self-management and collective identity where an economic and social recovery is generated.

Derived from a marked problem and what drives this article it is pointed out that, climate change is an issue that has gained importance in the last decade in relation to 2022, part of the attention is focused on the physical and natural aspects of a public space. The social aspect is less addressed in this area and especially in indigenous communities. The object of study addresses the indigenous communities of Ayotitlán and Cuzalapa, which are located in the Manantlán Biosphere Reserve in the South Coast Region of Jalisco in western Mexico, being considered as heritage conservation of Mexico.

The objective of this article is to analyze the importance of the confluence of social perception and environmental habitability for public spaces of indigenous communities of the South Coast of Jalisco, it continues with the theoretical formulation of authors who compete in the areas of study and finally the section of results where the congruence and relevance of the ongoing research is emphasized.

## **THEORETICAL ASPECTS**

Robertson (1999) points out that the indigenous people of Ayotitlán and Cuzalapa, Jalisco (object of study), have integrated a strategy that, in addition to promoting territorial reconstitution actions, also implies joining the national agenda on the debate in the formulation of indigenous legislation, which establishes as a core part the recognition of their rights over the territory and the jurisdiction of their statutes over it.

Another important precedent is that at the end of the seventies, the Ayotitlenses began to organize in defense of their territory, their natural resources and human, indigenous and agrarian rights. They took legal action to sue and expel the forestry and mining companies, blocked roads to prevent the entry of loggers and, on one occasion, destroyed the Tetreault (2009) forestry machinery, which leads to thinking about this cultural ideology and land ownership.

Cruz (2011) worked with the worldview of the Mazahua people of the north of the State of Mexico in relation to the cultivation of corn. This research allowed to verify that most of the interviewees have been forced to carry out the work of the milpa making adjustments in the traditional agricultural calendar, which has led to a division between the meteorological time, the ritual time, and the time of agricultural work. Another study by Velázquez (2008) conducted in the community of Tepoztlán, Morelos, shows that collective actions are just as important when you have information and know how to select and interpret it.

The contributions of Cruz and Velázquez set the tone for how individual consciousness is transformed towards patterns of collective development, the inhabitants understand that their land is progressive and as such they must see it, with the care of their interests and towards a perspective of economic growth. Therefore, the programs of strengthening in the field and care of natural resources participate in the factors of social perception of the indigenous communities, which is a topic involved in the study in question.

On the other hand, Mecalco and Izaba (2013) conducted a study in indigenous communities of Oaxaca and Chiapas where they point out that the native interpretation of climatic alterations in the case of groups of study communities tends to be based on human responsibility. Likewise, from another perspective, Martínez (2012) analyzed the importance of the gender equity perspective in the remediation of natural disasters. The perception of

the inhabitants about their productive practices, about the natural disaster and about the participation strategies followed by local social organizations in external projects was examined.

Saores and García (2013) carried out a study that constitutes an approximation to the knowledge and perceptions expressed by indigenous peasants of the Jovel basin, located in Los Altos de Chiapas, Mexico; about the manifestations and local evidence of climate change, especially the variation in the periodicity and intensity of frosts, rains and hailstorms.

From another perspective, Guimaraes (2002) points out that the social perception of inhabitants postulates the conservation of the biosphere in a broad sense of biodiversity. This worldview constitutes cognitive systems in which it is possible to recognize the presence of opinions, beliefs, values and norms about the natural environment of people and their environment (Bertoni and López, 2010). In turn, Patrick and Bastida (2010) point out that the wisdom that indigenous peoples retain about the adaptive capacity and resilience of any healthy ecosystem is what maintains the fundamental identity elements and allows them to persevere in their ways of life and inhabit.

Under another approach, Bertoni and López (2010) state that social perceptions of the environment constitute cognitive systems in which it is possible to recognize the presence of opinions, beliefs, values and norms about the natural environment of people and that will determine the positive or negative attitudinal orientation for the conservation of nature.

In this sense, the contribution of Bertoni and López reflect the relevance of pointing out factors of social perception that actively participate in the care of the ecosystem by the actors of a locality, where in turn, they try to promulgate benefits in their productive context and daily action, with the use of natural resources that allows them a model of life.

However, it enunciates what concerns public spaces under two perspectives that imply different perspectives: an operational one that focuses on the way a city works and another idealist that adheres to our knowledge interpreting things in a different way to reality (Berroeta and Vidal, 2012). In turn, Menéndez (2020) shows an approach to the quality of public spaces where you have the ability to promote physical activity, contact with nature and social encounters, which means the prevention of loneliness and isolation, cardiovascular diseases, depression and other mental and physical health problems.

What Menéndez points out reflects the importance of the design of public space, which meets the expectations of its users with a sense of functionality and well-being, which is attractive and safe for any visitor, which identifies opportunities for rest, leisure and coexistence; that is of interest for productive activities and quality trade (not informal), so these factors bring with them good dividends and growth with a sense of belonging and identity.

García (2013) points out the social perception of public space as fundamental to the aesthetic argument. Public space cannot be interpreted in this way, if it has not previously been interpreted in a social key, since this is the reason for its interpretation (Neira, 2007).

In addition to the anterior Castillo and Valera (2020) point out that, the public space is the result of the intervention of social actors, which through traditions and customs generate a self-production and appropriation of it. For their part, Frediani and Alcaina (2020) show an approach to the quality of public spaces in urban environments in historic centers and their adaptation towards the elderly, where they analyze the technical and design elements of the parameters of the physical environment.

According to the above, it is reflected that public spaces must be designed with the aspect of inclusivity and that all attendees have equal conditions of use and permanence of quality; that satisfies the needs and functions of its inhabitants.

Campos and Brenna (2015) also mention that it is necessary to understand that public space is a common resource that generates a link of relationship between society and it, (Sarmiento, 2021). The relationship between physical-spatial space and its design does not completely determine the way in which the human being relates to space, but it does detect behaviors typical of them (Dziekonsky et al., 2015).

For their work, Vidales and Rivera (2012) carried out an investigation where they proposed a methodological approach for the recovery of public spaces, which included as key elements the environmental dimension, citizen participation, strategic planning, reduction of citizen insecurity and equity; indicators of importance for the study carried out.

Now, on the concept of habitability and analysis factor of the research, it is created from the fulfillment of different standards that provide the individual with a thermal, acoustic and environmental comfort (Moreno, 2008). Therefore, to have a quality of life with benefit in urban spaces, they must be habitable for the human being, hence it can be concluded that “without habitability there is no quality of life”; that is, habitability is an important part of the condition for the development of quality of life in urban space (Gómez and Orellana, 2021). Habitability is understood as the letter for actions that can revitalize urban space, which gives intrinsic value to spaces that create character, symbols and a language (Guevara, 2020).

According to Ramírez and Cervantes (2018) the physical-social and environmental components are the elements that configure the habitability of public space, and provide as a result the health, well-being and satisfaction of the needs of the inhabitants.

Therefore, environmental habitability meets several conditions that must prevail in a building or outdoor space, to the extent that the parameters of comfort, health and safety are

contained, it will provide well-being for the user and optimize their daily activities and human productivity.

On the other hand, the process of urban development has produced environmental situations that make the quality of life of the inhabitants difficult, according to the socio-economic, demographic, political and cultural context, this aspect is reflected in the marginalizations of population sectors product of the phenomena of irregular settlements and poor urban planning, which generates that the quality of life of people is conditioned at a certain time and place (del Campo et al., 2020).

In turn, environmental comfort in outdoor spaces is one of the essential characteristics of the quality of the urban environment, since under appropriate conditions (thermal, light, acoustic, psychological comfort) it is possible to promote activities in streets, squares, courtyards and parks (Nikolopoulou et al., 2004).

Joining more in the factor of habitability on public space López and Faginas (2019) stated that communication between inhabitants acquires a particular character as a structuring element of life and the urban system. Habitability in public spaces is related to the basic conditions of habitability: displacement, attraction, the well-being of public space and its proximity to goods and services (Larive et al., 2015).

A study that contributes directly to the research was designed by Villaseñor et al (2021) where they carried out a work in outdoor public spaces of El Grullo, Jalisco, Mexico, with characteristics of a semi-dry warm climate. The objective was to evaluate the degree of environmental habitability, through analysis and estimation of meteorological and complementary variables.

Another related study was developed by del Campo et al (2020) in El Grullo, Jalisco, Mexico; and a Thermal Habitability Index (IHT) was obtained for outdoor public living spaces, based on the estimation of the effect of physical, meteorological and thermophysiological variables of the inhabitant. The level of performance of each indicator was evaluated according to complexity, relevance and accessibility of information, based on the results obtained, it was determined that the development of the IHT contributes to the relationship and adequacy between man and his environment; referring to the integration that results from the ability to meet human needs, expectations of development and coexistence in an outdoor public space.

Likewise, Garfias and Guzmán (2018) in León, Guanajuato, Mexico, made a general diagnosis on urban habitability, within the inquiry collected they obtained information on urban, economic, social and environmental problems; cultural characteristics of the population of the study area; satisfaction with the environment, safety and comfort; and assessment of the environment, access to green areas and equipment.

In turn, Alvarado, Adame and Sánchez (2017) used different techniques in the assessment of habitability of public space in the historic center of Toluca, Mexico. Within the importance of this study, the authors evaluated the habitability from the equitable use of public space, in the conditions of accessibility and pedestrian mobility.

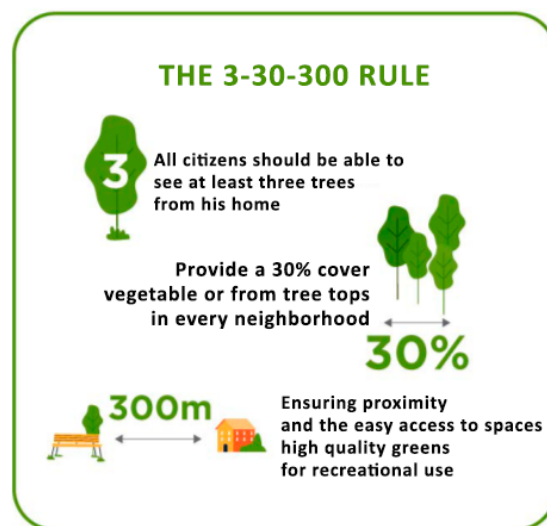
The studies reported in Mexico, demonstrate the interest in research in this area and, in turn, there is a progressive change in the analysis and design of public spaces that encourage mutual interaction between inhabitants with a sense of belonging, satisfaction and responsibility, therefore, this factor provides a positive value as a place of recreation to the geographical entity where you live.

As a final part of this document and according to the revised State of the Art, the World Health Organization (2016) recommends the availability of a minimum of 9 m<sup>2</sup> of green space per capita, but advocates 10 or 15 m<sup>2</sup> and establishes 50 m<sup>2</sup> per capita as the optimal value and final objective.

Green spaces can improve the health of urban ecosystems by mitigating the effects of extreme weather events (both heat and cold waves) and reducing air pollution and noise (Barron et al., 2019). Nature-based solutions, such as the creation of new parks and green areas, can sustainably solve the societal challenges presented by climate change and urbanization (Kabisch et al., 2017). Konijnendijk (2019) mentions a rule that focuses on the vital importance of urban forests and other urban nature in our health and well-being consisting of three models to follow (three trees at home, 300 m away from a green area and 30% of the colony or sector with vegetation cover). See Figure 1.

**Figure 1**

Rule 3-30-300



Source: Konijnendijk, 2019.

## **MATERIALS AND METHODS**

In this section, an analysis of readings was carried out with a qualitative approach to determine the thematic axes of the research. The documentary analysis consisted of the investigation, retrieval, analysis, criticism and interpretation of secondary data, that is, those obtained and recorded by other researchers in documentary sources: printed, audiovisual or electronic (Arias, 2012).

To this end, an initial reading was given to the downloaded documents and analysis indicators were established where the problem of the study phenomenon was considered. Subsequently, the information was organized by thematic axes, niches of opportunity of informative gaps were located and digital information that corresponds to the study was captured.

Once the bibliographic references were reviewed, manuscripts of theoretical aspects of indigenous communities, worldview, public space and environmental habitability were classified, with this, the research document was drafted.

## **RESULTS**

The review of literature that corresponds to the subject of study, refers to the importance of identifying, analyzing and emphasizing key points that allow a diagnosis of the research carried out.

It is mentioned that an anthropogenic subject that baffles indigenous communities in their socio-ecological system is the decrease in basic food, water and money. This compromises future generations and is detrimental to their productivity and sustainability. Consequently, the widespread perception of these tribes regarding the dispossession of their natural resources is increasing and contrasts their guarantees as a vulnerable group and conditions of habitability.

The need to take extreme precautions as a collective group for the care of natural resources is contemplated, the risks raised to the planet by the climate change of the XXI century have caused an acute versatility of health, well-being and habitability problems, coupled with this, the margins of the economy that compromises future generations and as an indigenous community.

## **CONCLUSION**

The contributions of authors in the subject of social perception, public space and environmental habitability, are a faithful reflection of how it has evolved in the timeline, theoretical data validated in the field, relate the authenticity and hegemony of research, they are also a watershed in the way of intervening and interacting with the human being and its natural contextualization, economic and social.



These types of studies are benchmarks for society, rural and urban areas. Part of the commitment of this research is to participate in the training of human resources, in addition to informing the inhabitants and leaders of these indigenous communities, about the importance of the analysis and integration of the study variables, where it seeks to act responsibly between environmental and social aspects; as well as, develop quality products for the dissemination of publications in the national and international order.

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