

Environmental Transformation with Social Value in the “La Primavera” Neighborhood of Sincelejo, Sucre, Colombia

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Abstract

Objective: the article refers to the preliminary results of an intervention process carried out in a community in the north of the city of Sincelejo, capital of the Department of Sucre, Colombia, whose purpose was the construction of ecological citizenship and the establishment of organizational meta-contingencies that would improve the collective intelligence of the community, raising its self-management capacities. It was a university social responsibility program led by the Corporación Universitaria del Caribe CECAR, for the improvement of the integral management of solid waste and the cultural dynamics related to the coexistence present there. Methods: the methodology of knowledge production focused on the ethnographic systematization of community development experiences applied to the strategies of collective co-creation, urban intervention (construction of an ecopark) and cultural transformation. The process linked the work of an interdisciplinary team of researchers and students of architecture, social work, natural sciences, anthropology and economics, the community and some government and business entities. Results: the results suggest the possibility of establishing meta-contingencies of an organizational nature that initiate a process of transformation if the necessary care is taken in the constitution of the organizational instances of the communities, and that they, once constituted, can drive these transformations if they are constituted as authentic entities, that the change in social habits can be promoted from such instances, that in the process the mobilization of the inhabitants is possible with programs of “ecological art” and that the urban intervention can operate as a scenario of immersion that reinforces the change of collective attitude.

Keywords: *Metacontingency, Ecological Culture, Ecological Citizenship, Solid Waste Management, Social Innovation.*

Introduction

This paper refers to the ethnographic systematization of an intervention carried out in the La Primavera sector of the Villa Juana neighborhood, located in the city of Sincelejo, Colombia, which sought to address its environmental problems with a strong concern for social and cultural sustainability.

On the intervention side, it was also a program for the construction of citizenship and neighborhood coexistence, linked to a line of work for environmental protection which, in the case of this community, was very necessary given the conditions of the environment, although it was a relatively recent urban settlement with little more than 10 years of existence. The relationship of its inhabitants with a stream, which remains with water all year round and that borders it from one end to the other, is part of its history, the children play in its surroundings, eventually bathe in it when it rains and the adults carry out their afternoon gatherings in its vicinity. A micro soccer field, which is also located on one side of the stream or small creek, is used for sports competitions and as a preferred place for community meetings and assemblies. The court serves as the central plaza.

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Given this situation, a team of specialists from different areas of the Corporación Universitaria del Caribe CECAR was formed and set out to advance an intervention process, relying on a pioneer program of citizen culture and ecological and urban improvement that was already prepared, although the challenges, in any case, were enormous. It was decided to implement different methodologies in what was understood as a pilot program of environmental transformation with social value, it was understood that it would be a program to be co-created with the community through self-financing.

About the approach that served as a tool it can be said that, on the one hand, a certain idea of “ecological culture” understood as understanding and valuing ecological principles that guide people and communities in making environmentally responsible decisions; and that integrates knowledge, values and practices aimed at promoting environmental sustainability (see Klochko et al., 2024); although nuanced with a perspective that allows turning it into a multiethnic notion that could withstand a diversity of cultural looks and interest group approaches (Maxim & Yulia, 2016) was taken advantage of. So, it is not only about environmental awareness and responsibilities, as they are known in the West or in industrialized societies, but about the interaction between culture and natural ecosystems, emphasizing how cultural practices influence environmental sustainability and ecosystem use, while addressing broader historical events related to cultural ecology (Ming-kun, 2012).

It is a complex notion that includes cognitive, emotional, aesthetic components, valuations of all kinds, norms for relating to such ecosystems and the activity of human beings in terms of social practices (Járkovliuk, 2021). Ecological culture can be described as a process and a result at the same time of such elements, it represents the unity of knowledge, emotional attitudes and valuations towards nature, together with skills necessary for environmental interaction. It is true that it can be defined in terms of environmental responsibility, but it is not necessary.

Probably, this last point is where most confusion often arises given the references to the normative element; asking for responsible behavior with the environment in the Western context could require adding more elements to the previous notion, such as the notion of citizenship; to be more precise, the notion of ecological citizenship. As one researcher points out:

In their quest to define and incorporate a new “environmental ethic” into public debates and discourses, environmentalists aim to find a rationale for changing behavior towards more sustainable lifestyles motivated by an ethical stance, rather than simply responding to superficial incentives (Seyfang, 2006, p. 387).

This does not have to be something reprehensible; on the contrary, it is necessary to demand such behaviors from people to the extent that we need to improve our relationship with the global environment and rethink our relationship with Nature. As the author points out, “civic republicanism” notes the duties of citizens for the common good, among which are undoubtedly the duties towards Nature, or environmental duties, must include what in the West we understand as the private and public spheres (Seyfang, 2006); and this cannot be understood from the more traditional constructions that are marked by gender prejudice and ethnocentrism, as usually occurs with the common concept of citizenship. In this sense, ecological citizenship must overcome the distinction between public and private, as well as such prejudices, to become a liberating and decidedly intercultural notion, or to put it another way, one that is capable of enabling interculturality. It must be a notion situated within the framework of a multiethnic ecological culture.

On the other hand, it must be a citizenship for the ecological duties with the planet understood as a western code to refer to the adequate social relations with the ecological systems, relations that must allow the sustainability of the “ecological welfare”. It is necessary to take care of the rivers, forests, rainforests and seek the reversal of global warming because it is part of that welfare.

It is precisely this last characteristic that makes it especially useful insofar as it understands sustainability as a complex fact that crosses several areas of social life and that must be thought of in an integral manner. When it is present in an environmental change program, it is nourished by the social and cultural spheres to the extent that people's customs and beliefs affect the permanence of a certain environmental or

ecological behavior. Collective patterns of thought and action can reinforce or halt a particular set of ideas put into practice to protect the environment.

Environmental projects must be sustainable from the point of view of traditions, ways of being and collective subjectivity, so that they are accepted and contribute to their durability over time and integrate them into their heritage. An intervention that solves environmental problems will not be viable if it is contrary to economic dynamics or is rejected by economic actors (Zamacona & Alabart, 2019).

The project to which we refer intended that the work to be carried out in the ecological field should lead to a possible cultural transformation, adding cultural factors to the initial idea, or perhaps it would be better to say, making it converge with a proposal for the construction of ecological citizenship. A citizen adequately trained for globality and for cities must be able to process information related to the environment and behave, collectively, in accordance with advanced principles of sustainability.

In the “La Primavera” neighborhood, there is a high percentage of solid waste stored in the creek, which causes water stagnation, bad odors, insects harmful to health, deterioration of the environment and pollution in general. In this environment, there are no ecological points for waste collection, which adds to the problems related to the provision of urban sanitation services, since the trucks cannot enter the streets of the community due to the poor condition of the streets; therefore, the neighbors must walk several blocks to leave the garbage in a suitable place. The ecological points or containers for garbage collection are not observed either in the sports field or central plaza, which causes additional pressures to the stream that is normally full of garbage; it could be said that in terms of distance traveled, it is easier for the neighbors to dump garbage in the stream that is halfway down the road.

Therefore, new attitudes are required to reverse the situation, attitudes that lead people themselves to create material conditions to reduce the probability of these behaviors. It requires the emergence of a cultural practice with both material determinants (among which there must be sufficient garbage collection containers) and intangible determinants (the appropriate attitude towards solid waste management) that will allow progress towards better scenarios. The construction of citizenship here means the guarantee that the solutions proposed will be sustainable.

There are risks associated with the proximity of the sports arena to the stream, especially during the rainy season, since there are many children who constantly make use of this space to play, the environmental imbalance can bring public health problems because the speed of production of this waste exceeds its degradation rate, it also negatively impacts the landscape and decreases the quality of life of its inhabitants.

It is well known that solid waste management is an important problem worldwide, and that it is supported by the demographic growth and population concentration in urban areas. The tax development of industry, the changes in people's consumption patterns and the improvement in the population's standard of living, among other factors, have led to an increase in solid waste in the different cities and towns of the world. In this sense, solid waste management must be implemented in cities through its different stages, such as: generation, storage, collection, transportation, transfer, treatment and final disposal (World Bank, 2018).

Faced with this serious environmental problem, we opted for an approach that, in addition to applying an advanced approach to ecological citizenship, draws on ideas related to Metacontingencies in Sigrid Glenn's original theorization regarding the logics of change that must be established. This includes, on the one hand, the idea that the cultural corresponds to a different level of reality to the one lived by individuals; on the other hand, that new cultural practices that are attempted to be established must be submerged in reinforcement loops in order to be consolidated (see Glenn, 1988; Pereira, 2022). This will be explained later, but it means that great importance was given to the social organizational component for the establishment of the new practices and attitudes, and it was sought at all times that the social habits to be established were in accordance with beliefs, attitudes and habits already existing among the inhabitants. Change, therefore, must be endogenous in a profound sense, or it will not be possible. That is why a

multidisciplinary team was formed to improve the likelihood of change occurring, to overdetermine the emerging scenario and to address the different aspects of the change process. This was not simply environmental education or the forging of ecological awareness, but the creation of a multidimensional system of a social nature in which responsible ecological behavior was the most likely element. Students and teachers from the Natural Sciences and Environmental Education, Social Work, and Architecture degree programs of the Corporación Universitaria del Caribe CECAR participated in this initiative. The material dimensions of such a system, organizational, formative, social networks, and others were addressed.

Methodology

In order to achieve the purpose of cultural transformation associated with the construction of ecological citizenship, a strategy of implementation of Metacontingencies of the type related to citizen culture programs was used. In Colombia, some have been tested in different cities, and although not related to water flows or preservation of natural environments, there have been some on urban behavior problems such as littering in the streets, or rather, to public space care programs linked to ecological issues (Páramo & Díaz, 2018). The programs, in these cases, have had encouraging results.

In our case, the aim was to improve attitudes towards the environment, including everything related to littering. The methodology applied could be described as a systemic and multidisciplinary intervention in favor of the implementation of Metacontingencies of a material and organizational nature. We promoted the creation of an immersion environment in an “Ecological Park” that was designed for material contingencies and the creation and consolidation of organizational forms that would help the community to change its attitude or facilitate it to some extent. Along the way, there was also a formative work centered on art and the sensitization of children and women.

Data Collection Techniques

The data, on the other hand, resulted from the ethnographic systematization process, which is done permanently in the community in the visits that are continually made and in meetings that allow us to assess the learning process on social and cultural change, as well as the lessons learned. In this case, then, it includes both the usual ethnographic research techniques, such as observation and informal conversations, alternated with the procedures of systematization of community experiences proposed by Oscar Jara (Jara H., 1994, 2008, 2018).

The proposal of how to carry out this combination between ethnography and systematization is found in a previous work entitled “Ethnographic Systematization of Experiences: A Proposal for the Evaluation of Community Development Experiences” (Pereira, 2016). The methodological proposal does not refer to an ethnography, but to a process of evaluation of community development experiences or projects that takes advantage of ethnographic techniques, so it is not research but evaluation. In its application, it is not an ethnographer who is dedicated to studying such projects, but a systematizer who, with the help of the community, is dedicated to evaluating what has happened, taking advantage of ethnographic techniques. The logic is to evaluate in order to achieve higher success rates when implementing projects, and by systematizing one can learn all that is necessary to do so. The specific techniques on which it is based are the following:

- Intensive observation of the change processes.
- Sporadic meetings with the community or its leaders to evaluate the lessons learned about the change process.
- In the analysis phase, to understand the “logic of the process” and the reasons why things happened the way they did.

- Elaboration of a Field Diary with all the observations recorded; in this case a note management software called OBSIDIAN was used for this purpose and for coding. It must be said that, in this sense, the principles of Grounded Theory were used for this process.

Based on these techniques, data have been permanently collected from the community throughout the months, mostly qualitative, although there are some of a quantitative nature, born from a preliminary diagnosis carried out at the beginning, through a closed questionnaire.

As for the choice of the neighborhood, its definitive selection depended on a series of criteria all related to strategic issues: as will be seen below, it was an area close to one that has been previously attended and where the first attempts to approach failed due to various circumstances, among the most important, the interference of local political leaders accustomed to place the community action boards in their role as political clients or base for the electoral processes. The “La Primavera” sector, like the “El Salvador” sector, belongs to a slightly larger area known as Barrio Villa Juana. Thus, the decision is related to staying in the same area which, according to the previous diagnosis, had a series of ideal characteristics for the pilot program to be carried out, and this should be specially emphasized; it was intended to choose an area where there were particularly serious problems of citizen coexistence and violence, together with environmental problems that could be solved with approaches close to tactical urbanism, and probably La Primavera is more attractive than the first one in this field.

Unlike El Salvador, the first site visited, La Primavera had an ecological problem in the center of the community in the form of a polluted stream into which the neighbors constantly threw garbage, and this was seen as a great opportunity to place the environmental theme at the center of the project. In the first of the communities, on the other hand, the environmental component took the form of an open field where soccer was practiced, but without the required conditions; the application of tactical urbanism would have made reference to this space related to solid waste, but nothing more. The spring sector was much richer in diversity of problems because, in addition, being located at one end of the Villa Juana neighborhood, bordering with other communities, it has a vegetation buffer that surrounds it and is conducive to the protection of flora and wildlife; in fact, an evening stroll through the community catches visitors off guard by the presence of cattle, horses, rams and others grazing in the area. It is also true that, previously, work had been done on a similar problem related to a fishing community that was crossed by a stream in the outskirts of the city of Cartagena, in an experience that was analyzed in (See Pereira, 2022). The decision, then, had to do with the goal of carrying out a pilot experience that would allow for a rapid learning process for a macro-project of citizenship building in the entire city of Sincelejo, Sucre.

Organizational Meta-contingencies:

The Meta-contingencies of an organizational nature that were addressed revolved around the process of creating a Community Action Board (JAC) that at the arrival of CECAR was non-existent, together with the rules that were proposed to the community and its leaders for it to function. In this case, three (3) of them were particularly relevant, namely:

- a) Those related to the mechanism for electing the Board.
- b) The rules or bylaws that should govern the operation of the Board.
- c) The “organizational incubator” type of accompaniment that has been provided.

The process covered approximately two (2) years that can be divided into two (2) different moments, namely, from the arrival to the community and formal constitution of the CAB in November 2023, and then the period of the functioning of the CAB that covers the whole year 2024. The process went through several moments in which there were highs and lows, and also included an initial diagnosis where indicators of social capital, interpersonal violence, attitude towards the natural environment (including the stream), community recycling efforts, sense of belonging and so on were measured. This was carried out in May 2023. The instrument applied was the simplified version of a broader one that served as the basis for the

integral diagnosis of citizen culture carried out in the city of Sincelejo, Sucre in 2023, and applied to more than 3,500 people. In the same way, a “quick” systematization was carried out in the form of a rapid ethnography, to explore the social dynamics and usual contingencies of a collective nature in which the community is immersed due to its history.

Incentive program in favor of recycling: a complementary strategy was taken to the community based on the agreements that the Corporación Universitaria del Caribe CECAR usually signs for the exchange of recyclable material (plastic bottles, cardboard and paper) for “ecopoints” that allow the option to obtain prizes after a certain amount of them is obtained. It was proposed to the leaders of La Primavera to add the ecopoints of the university with those that the community could get if it participated in a recycling process and delivered to the city's sanitation company INTERASEO, the same on a regular basis. The competent authority in the environmental area of the Department of Sucre, CARSUCRE, and the Secretary of the Environment of the municipality of Sincelejo also participated as allies. These alliances were intended to create an organizational meta-contingency in favor of recycling centered on an incentive (community incentive program) which were the “ecopoints”, the community would be organized to obtain the benefits granted by the company as long as they achieved the social habit of recycling.

Eco-estore: some “eco-estore” were set up along the same lines, i.e., stores where recyclable solid waste was exchanged for food, in alliance with the city's sanitation service provider (INTERASEO). The aim was to raise awareness among the inhabitants about the possible usefulness of the solid waste generated in their homes every day.

Ecopark project: This methodology was supported by the design of an ecopark with architectural criteria, and the development of furniture prototypes to be implemented in the intervention from a collaborative process between students, teachers and the community.

The agile design method “Design sprint” (Knapp; Zeratsky y Kowitz, 2017) was taken as a basis, taking into account the following stages: 1) understand, 2) devise, 3) decide, 4) prototype, 5) validate, which were synthesized in three moments of the study and that are a fundamental part of the work structure in the architectural office of CECAR (Martínez and García, 2019). The architectural office is a social projection unit created by CECAR.

In the first step, the problem was identified, for which a bibliographic review was developed from which the basic bibliography was collected and classified to define the importance and relevance of social innovation as a strategy to stimulate reflection in students and team members.

Secondly, the definition of criteria was addressed, for which field visits were made to verify the reality of the place, the ways of inhabiting the spaces and their relationship with the elements of the environment, understanding their needs, requirements and potential.

The third and final step was the implementation of the proposal. Once the information was analyzed, the prototypes of the furniture and complementary elements were developed and implemented, built with reusable materials and easy to acquire in the context, according to the needs of the inhabitants, specifically organized to meet the requirements that facilitate cohesion in the community, and stimulate empowerment through the collective construction of elements for the play activities of the children of the community.

On the other hand, in the community there is a bridge that is of great importance for the community, its inhabitants prefer it as a way or means to communicate with neighboring communities and with the outside, in previous ethnographies they noted its character of demarcation or border with other communities. In fact, on one occasion it fell down completely and was rebuilt by the villagers using their empirical knowledge and a strategy of self-construction, despite the fact that a politician on duty, in his role as “godfather”, had built one higher up with capacity for vehicular traffic and not only pedestrian traffic. This bridge was considered in the project, from the architectural point of view, although at present it can be evidenced as a risk situation, due to the state of deterioration in which it is located. This is the reason why the decision was made to generate a proposal for its improvement, which involved a feasibility study to determine the

type of communication it generates with the context. In this sense, a structured analysis was carried out through an urban route and adequate mobility of the sector, in a process led by the architectural office and in which 3 professors and 4 interns of the architecture program participated. The collection of information took into account the use of a drone for an orthophoto and aerial photography to carry out a visual reconnaissance and a topographic study of the sector, in order to minimize possible future destabilizations.

The proposal was socialized with the community, which at the time expressed its appreciation and agreement with the proposal, so partnerships with public and private entities are being negotiated in order to materialize the next phase corresponding to the design. The bridge also facilitates social interaction and facilitates the movement of children and adolescents, and is the gateway to the ecopark and recreational areas that are important for the community

In this case, then, the project was linked to the rest of the lines of work through multiple dimensions, on the one hand, its association with the organizational dimension, which in this case is related to the Environmental Committees and the Community Action Board's (JAC) Business Committee; On the other hand, the entrepreneurial work planned for the park (with the installation of kiosks or points of sale for juices, handicrafts or anything else that the JAC decides and that contributes to its self-financing and entrepreneurial spirit); and finally, the work of the community in terms of safeguarding the natural heritage and its conservation. As the stream crosses the area destined to the ecopark, its sanitation seems a logical consequence of the operation and installation of the ecopark, the ecopark could not grow properly without a sanitized watercourse that feeds, in fact, all the activity that takes place in it. This space must be integrated to the stream and for this the community must mobilize in the sense of its sanitation, that is to say, that with time it will be possible to advance in this direction.

The environment and entrepreneurship committees, which are part of the CAB structure, should be the protagonists of this process, in such a way that it gives meaning to their existence. If they take responsibility for the functioning of the ecopark, the organizational dimension of the Meta-contingencies acquires full meaning, gives them goals to work on and organizes the community around this objective.

Art And Culture Program

The methodology of the “Renovarte” project, another of the projects applied, was based on the concern for the socioeconomic conditions of vulnerability of the community and the need to carry out activities of empowerment and social transformation linked to recycling, in this case, recycled art. We worked with 26 heads of household mothers selected through intentional sampling, given that these people presented the appropriate profile to benefit from the activities focused on the development of creative skills and self-esteem (Hernández & Mendoza, 2021; Creswell & Poth, 2021).

The project focused on conducting exploratory workshops that promoted free expression and strengthened the artistic skills of the mothers, who worked with recyclable materials to foster creativity and environmental awareness. The phase culminated with a certification that recognized the mothers' effort and commitment to the learning process.

In the second phase, the participants collaborated in the design of a collective sculpture to be made with recyclable materials, which symbolizes the value of women in their community and their transforming role.

The construction of the sculpture was carried out together with the mothers, who also participated in its projection, reinforcing the environmental and social commitment of the project.

Finally, the third phase consisted of evaluating the implementation and impact of the project through open-ended interviews and a word cloud analysis. This analysis allowed capturing the perceptions of the participants, who expressed how the activities promoted empowerment, self-worth and creative skills. The results of this evaluation are related to resilience and community cohesion (Jones & Kelly, 2020; Vygotsky, 2004).

Results and Analysis

Context of Intervention

The intervention community was built with very poor families, victims of the armed conflict, who had come to the adjacent community of “Cristo Viene”. The civil war in Colombia has been going on for more than 70 years and has generated displaced people almost everywhere, and in La Primavera this means 59.7% of the population existing there today. Some left after the founding process and others rented their homes; otherwise Colombia is a country where migration is constant, many want to leave and in this community, today people go as far away as European countries or North America. In the diagnosis carried out by the research team in the city of Sincelejo it was found that 41.8% of its inhabitants were thinking of leaving (Macroproyecto de cultura ciudadana, 2023b) and in La Primavera this percentage reached 31.7% (Macroproyecto de cultura ciudadana, 2023a).

Today it is a poor community where only 53% manage to eat three meals a day (the rest eat once or twice), 23% live in houses with more than one family, 58.7% of the heads of household are women (a minority are men) and 60% of the couples live together. According to measurements taken by the research team at the beginning of the intervention in 2023, 71% of the inhabitants do not trust others, and thus have deteriorated social capital.

Organizational Meta-Contingencies

Regarding the organizational dimension of the intervention process carried out, we will comment on the results achieved with the three (3) strategies implemented and which have already been mentioned, namely:

- a) The mechanisms for electing the governing body.
- b) The norms or statutes that govern the new Community Action Board.
- c) The “organizational incubator” type accompaniment related to the constant monitoring of its activities.

As mentioned above, as a prior step to the intervention process related to the construction of ecological citizenship, a diagnosis was carried out which, as mentioned above, included both qualitative and quantitative aspects. The qualitative aspects included the identification of the type of social and political scenario in which to work according to the assumptions of situational strategic planning that foresees the identification of competing actors who seek to impose alternative agendas, their hidden agendas and reasons that motivate them (Moyer, 1989). This is necessary since organizational strategies will give rise to “human action systems” that must be in competition with others (for the idea of human action systems, see Cernea, 1995). On the other hand, it was necessary to estimate the type of social reinforcement provided by these other actors or any incentive that they put into circulation and to which people are accustomed.

This was precisely the case and it was not very difficult to identify the possible competing actors who were fighting, in this case, to co-opt the community action boards and impose their agendas on them. In that sense, when we arrived at La Primavera sector where we talked with the leaders with whom we had contact about the convenience of forming the new Junta de acción comunal, which also did not exist in this area, when the regional elections in Colombia were over. These occurred in October 2023.

Another strategy that was advised was related to the election of the directive committee, it seemed inconvenient the system of “planchas” that is used for these cases, because it ends up in closed groups within the community that compete with each other, it gives rise to conflicts, besides being an occasion for the interference of political parties as financing entities. Normally, when this happens, the different “planchas” seek financing from political leaders, who then move their machines. When one of them wins, they have already made commitments to these leaders, which prevents them from working for their communities. It was recommended, instead, the uninominal election under the modality of candidates to

be elected in the constituent community assembly, with a dynamic that avoids partisanship and places, in the first place, the reasoned vote. This was done.

With the strategies for the constitution of the community action board after the regional elections and counting the uninominal election, it was possible to form a board without trauma and that did not produce internal divisions in the community.

It was necessary to have an organizational component aligned with the objectives of ecological culture and that offered guarantees for the construction of an authentic ecological citizenship. The event was not without problems since, in any case, two (2) leaders showed up when the regional elections were about to take place in the country, with already known agendas of offering gifts in exchange for votes, one of them ended up, in fact, building a bridge over the stream that the community had been asking for a long time, but the strategies put in place allowed overcoming these obstacles.

As for the regulations governing the operation of these entities in Colombia, there is a law that regulates them and that represents an obstacle given the verticality of command that it proposes. For this reason, the drafting of new statutes was proposed, taking advantage of some resources that, in any case, the law offers; this was discussed and approved in the assembly. And as regards the program to accompany the board, we have been working under the strategic premise of the “organizational incubator”, which is an emerging category referring to the idea of being at the side of this organization with advice that will allow it to function until it is able to overcome problems such as those mentioned above. In the scope of the intervention program, the organization is successful if it maintains high standards of community participation, horizontal management that excludes vertical commands, transparency, inspires trust among neighbors and raises the collective intelligence of the community.

Managers were also advised to use social networks and digital media that are managed by cell phones as a way of managing coexistence. Among the most important qualitative results that can be mentioned, derived from the formation of the community action board and its implementation, are the following that we are going to list below:

With the organization of the new board came the organization of the community and an allocation of roles among its inhabitants, which was something that did not exist before the creation of the Board or was very poorly carried out. A differentiation can be traced between the years 2023 and 2024: the first year corresponds to the arrival in the community, the following year to the creation of the Board and the beginning of its impact on the community. Some facts reveal the change, while in the first year all proposals related to organized community activity failed, in the second year it did not happen that way. On one occasion, for example, the receipt of some materials that were to be donated (sacks of cement) for the construction of the bridge could not be delivered because there was essentially no one to take responsibility. Donors asked who they could turn to and no one was found, several neighbors were asked at that time and almost all shrugged their shoulders, being the case that the one who finally assumed the responsibility to receive them, could not attend the delivery arguing personal reasons. Arriving at the community conveyed the feeling that no one was in charge, that everyone was locked up in their own house and that, if agreements were made for something for the common good, it had to be done privately with someone in particular. Likewise, those who wanted to appear as leaders blamed each other for what happened, as happened in this case.

In the same way, the donors complained, in interviews with one of them, a councilwoman, she said that they arrived at the community and did not know who to turn to, some neighbors recommended different people to advance some process and in the end it was not someone in particular.

The same was true of the city's sanitation company, with the perceived difficulty of getting the community to coordinate its actions for recycling solid waste and delivering it to the company. Attempts, for example, to call on the community to attend previous training courses failed time and again. It was, therefore, a community with three (3) characteristics, namely, a) there was no awareness among its inhabitants as to

who represented it; b) tasks were not assigned for specific purposes in an efficient manner, it depended on neighbors acting in their personal capacity, and c) there was no division of labor for community purposes.

With the creation of the Board in November 2023 the situation began to change slowly towards the creation of organizational habits, the work team of the Corporación Universitaria del Caribe CECAR got a valid interlocutor, with whom everyone agreed, and delivery/reception of materials could be made. The collective division of labor has been developing, it is known, for example, where things are going to be stored and who can receive them. This has already been tested several times, so it seems to be a consistent trend. It refers to a feature that did not appear overnight, but has been slowly consolidating.

In relation to the theory that is handled, it can be seen that the community has begun to explore these new meta-contingencies, looking for meaning, in the scenario of a collective instance that organizes it, it should occur over time that the set of contingencies that have begun to be experienced can be consolidated.

In the same way, the community is now better prepared to combat the other meta-contingencies or collective habits that harm it or divert it from the path where it defends its interests, divide it and turn it into an appendix of the political leaders of the day (Maldonado, 2003).

It is now possible to make formal agreements with the community to the extent that it has managed to generate within itself an entity that represents it. This is important for the purpose of having alliances with external actors and for requesting resources from government entities; it is well known that when the inhabitants went to these entities they were asked for a representative entity that they did not have. On the other hand, the community now carries out fundraising activities that were not done before or were done on a personal basis by some who took the initiative; in fact there was a lot of mistrust and there were always rumors about the misuse of the resources that were collected.

The issue of distrust has been subsiding a bit, even though the community had historically experienced setbacks of this type with the previous community action board, which deserves a note: in the first years of existence, after its foundation, an attempt had been made to create a board but the initiative failed, apparently, for two (2) fundamental reasons, namely, according to the neighbors, the president was involved in an act of aggression against a family member that gave much to talk about and caused him to flee to another city; on the other hand, the funds that were collected were used to buy some goods that finally remained in the hands of individuals who then did not want to deliver them, even though they had been purchased with funds from community activities. The inhabitants said, then, that the fundraising activities only served for corruption, something that is very frequent in all the CABs in the area; it is like a saying that is constantly repeated.

Hence the recommendation that has always been made to the new Board of total transparency and accountability as a way of restoring trust, and mechanisms have been devised for this purpose that, after all, have yielded results. It was suggested the creation of a virtual group, through one of the most used social networks, in which almost all the inhabitants of the sector are registered; which informs about the money spent and through which evidence such as invoices and photographs are shown. It is known in whose hands the goods that are being purchased may be in.

This has been a process, at the beginning there were strong rumors about the possibility that the members of the board of directors were keeping the money produced, which generated anguish among them, but as time has passed this has been decreasing, it is verifiable the reduction of the number of comments among the inhabitants and tranquility is observed among the directors. They have always been advised in the accompaniment process that they must take care of the restitution of trust as a key factor for the success of the new board, which is related to a favorable policy of social capital that, as it consolidates, will help to improve the operation of the Board.

On the other hand, the emergence of an organizational body has made it possible to adequately address the issue of recycling; it has been possible to think, at least, that the community could organize itself to deliver solid waste to the city's sanitation company, and otherwise address the maintenance of the ecological park

once it is inaugurated. These are not minor issues; the creation of community green enterprises or work teams formed for this purpose may be what is needed to create social and cultural sustainability for the ecopark, or at least to induce it among the inhabitants, since doing it the old way, as the community was before the formation of the JAC, would have been highly improbable. It is certain that, in this situation, from what has been seen, there would have had to be a particular initiative of a particular neighbor, which in the end would have disappeared under the weight of circumstances, and if not, the community would be limited to using the park only as a spectator. Among the proposals for this space, once it is inaugurated, is to have the formal and systematic intervention of a specialized group within the CAB, such as the environmental committee (it could also be the business committee), so that sustainability is likely.

Finally, it is possible to argue that the community is now showing a favorable trend towards the following indicators:

- Greater capacity to undertake organized actions.
- A higher level of trust towards entities such as the community action board.
- Adequate organizational foundations for the construction of an ecological citizenship appropriate to the environment surrounding the community.
- A better scenario to make the recycling and ecological park projects sustainable.

Recovery of the Neighborhood's Urban Space

The recovery of the urban space advanced in a sensitive manner to be prepared as a place that could house an ecological park in a planned manner and guided by architectural criteria, combined with those coming from ecology, education, anthropology and taking into account the beliefs and expectations of the community or the inhabitants of the environment. From the beginning we were fully aware that we were participating in an interdisciplinary team that would enrich the proposal; therefore, in the first stage, the objective was to understand the problem and approach the realities of the community in an articulated way, the students and teachers of the innovation and creativity course of the VIII semester of the architecture program, together with the teachers in charge of the innovation and social projection component of the architecture program and environmental sustainability of CECAR, made some visits to raise awareness and identify the characteristics of the context to be intervened. Architectural surveys were carried out using orthophotography with drone, surveys and vegetation cards in situ and verification of needs and requirements through open interviews with members of the community.

Then, in a second stage, the students, organized in groups with the support of teachers and advisors from the CECAR Innovation Center and Laboratory (CIEM CECAR), generated a series of proposals for the design of urban furniture and equipment with the participation of the community. A process was followed with the objective of deciding on the best initiatives, for which the students were accompanied, with the support of teachers and advisors from CIEM CECAR. In this way, the most viable initiatives with innovation potential to solve the identified problems were chosen.

In the fourth stage, students and teachers developed the ideas at the level of medium-fidelity prototypes, articulated through an urban design proposal, from the approach of sustainability and ecological urbanism. Finally, the ideas and prototypes were validated through a presentation to representatives of the community and decision makers of the university and companies that would support the implementation of the proposal. Among the validated prototypes we can mention: Calisthenics, ant hill, the cage, mirador, among others.

Eco-store: The impact of this work is considerable, since through the eco-shops the community of La Primavera exchanged waste for food, recycling 287.6 kg in 2023 and 261 kg in 2024, in days organized for the community in a space of half a day per day. It should be noted that this strategy was promoted, awareness raised and publicized one month in advance.

Recovery of the Stream

The recovery of the watercourse that crosses the community was also part of the priority goals and has not been lost sight of, but it is a much more complex process, since, on the one hand, there is the problem of contamination of the water that flows through it; and on the other, that which has to do with the presence of solid waste, some of which is dumped by the communities further upstream and dragged downstream until it reaches La Primavera. In the latter case, then, it is not only the waste that the inhabitants of the community may dump on their own, but involves more communities.

In any case, it was approached by means of an important variable for the conservation of these watercourses such as trees, which, as is known, generate diverse effects, among them, the retention and preservation of water sources. Therefore, two days of planting suitable trees were organized together with the local population, the results of which should be seen in the medium and long term; it is hoped that this vegetation will positively affect the humidity level and contribute to reduce the erosion that is undermining the land around the court or central square of the community. These are priority issues and everything has been done with the participation of the inhabitants and by offering them eventual training.

In order to reduce the amount of solid waste, work has been done by placing medium-sized containers in the surrounding area and with house-to-house campaigns to make the inhabitants aware of the need to change in this respect; but, on the other hand, and this is also of great importance, creating a social use area in the area surrounding the stream that removes this space from the idea of a “non-place”, impersonal and that does not feel like one's own. The idea is to achieve its conversion into a “place”, in the conception of Marc Auge (2000), that generates a sense of belonging and that feels like a useful space in which, of course, garbage will not be thrown. The starting point is the idea that places where garbage is dumped are spaces considered to be disused in a social sense; garbage is dumped in them because they have no social utility. It is here where the ecological park, placed along the creek, plays a complementary role and is being filled with furniture that will be used for family entertainment and children's games; it will also be filled with symbolic elements alluding to significant issues of the community.

Art and Culture Program.

The implementation of workshops with recyclable materials in the “Renovarte” project in the Villa Juana neighborhood, La Primavera sector, brought multiple benefits to the participating mothers in the social, economic and environmental spheres (CECAR, 2021; Ministry of Environment and Sustainable Development of Colombia, 2022).

In the social sphere, the workshops strengthened community cohesion and relationships among the participants. By creating a collective sculpture and working as a team, the mothers developed essential collaborative skills. The creative process also improved their self-esteem and sense of belonging, as the mutually supportive environment allowed them to share experiences and emotions in a safe space, forming support networks and increasing their personal empowerment and recognition within the community (Jones & Kelly, 2020).

From an economic perspective, the workshops trained the mothers in creative recycling techniques, transforming discarded materials into products with economic value. By learning to work with recyclable materials such as paper, plastic and cardboard, they acquired useful knowledge to create artistic and functional items that they can sell in the local market, representing a potential source of additional income. This training in entrepreneurship, based on the use of accessible materials, contributes to improving the economic situation of their households and fosters their financial autonomy (Salcedo & Mora, 2023; Rincón & López, 2020).

From an environmental perspective, the project promoted greater ecological awareness and the adoption of sustainable practices within the community. The workshops taught the mothers the importance of reducing and reusing waste, encouraging them to see recyclable materials as valuable resources, which led to changes in their consumption and waste management habits. The creation of the collective sculpture and

the projection of the ecopark boosted the participants' commitment to care for the environment, promoting a more sustainable and respectful life with the environment (Martínez & Díaz, 2021).

In this sense, all of the above can confirm that the recycled art workshops of the “Renovarte” project had a positive impact on the social, economic and environmental aspects in the community of the La Primavera neighborhood. The intervention not only empowered the mothers, but also provided them with tools to improve their quality of life and contribute to the sustainability of the environment.

The most relevant results of this program are the following:

- Raising women's awareness of global social issues such as hunger, poverty and the effects of climate change, among others.
- Training of the communities, not only in environmental terms, but also in their personal and educational development.
- From an educational perspective, the project was an innovative pedagogical strategy that promoted practical and experiential learning, allowing community actors to directly experience the relationship between nature and human beings.}

Conclusion

Social Dimension

From what has been seen so far, organizational meta-contingencies are closely and intimately related to the communities' capacities to manage their relationship with the natural environment, external allies and political leaders in their role as godfathers trying to achieve a client base. To be more precise, the component that seems to work has to do with the offering of alternative incentives and the social habits that as collective practices derive from it, the communities need time to mature this, that is true, but it is also true that when a certain way the “implementation mechanism” occurs, the results are promising.

In La Primavera this process of implementation is allowing the consolidation where the administrative instance that watches over the collective interests and leaves in a second plane the clientelistic interests, which would turn it into an appendix of leaders placed in the function of caciques, because of the caciquismo or local caudillismos. This is of great importance because, as we have seen, the interference of this last factor prevented the realization of the intervention process in another sector of Barrio Villa Juana, that is to say, it intervenes in any way that annuls any other correlation of force alternative to that of the godfather/client relationship, and when this happens it is difficult for anything to be done.

On the other hand, it seems that these mechanisms of implementation or conformation of such mechanisms, such as the community action boards, require strategies that do not make the inhabitants of the communities fight and that prevent the co-optation of the electoral processes by such leaders, which was achieved, In this case, with uninominal election of the members of such boards, abandonment of the “plancha” methodology (which is the mechanism that facilitates cooptation), and placing the citizens in conditions that facilitate the careful reflection of those who are going to be elected to represent the community. These three (3) factors allowed, in this case, avoiding the deviation of the process and distorting the nature of such basic entities and with it came the logical consequences that derive from it as a trend, namely, the emergence of a genuine steering group that organizes the community based on goals of general interest, seeks the division of labor among the inhabitants (taking advantage of the specialized human resource it possesses) and many others that derive from the application of this capacity to different goals of collective management.

If collective intelligence is defined as the capacity of groups of people to work together, to be creative and to solve problems, which is supported by an intelligent division of functions (which implies putting the

most capable for certain functions in the positions that best suit them), the use of endogenous resources (solving problems with what one has), the translation of problems into everyday terms and the willingness of its members to follow the most innovative ideas possible, it will be seen that this may have improved in the community. The concept is based on the principle that individuals working together may show more or less intelligence or a greater or lesser ability to solve problems, and would apply both to political systems and to the efforts made by smaller groups such as Community Action Boards (see Bylyeva, 2023; Woolley et al., 2010). Indeed, the term is defined on the basis of the following factors:

Effective division of the functions of its members.

Effective coordination.

Willingness to pursue innovative ideas.

Exploitation of endogenous resources.

It could be said that there is a difference in terms of the level at which these factors were found in the two stages mentioned above, before the formation of the CAB and after (year 2023 and 2024).

Environmental Dimension

According to the Inter-American Development Bank (2018), each inhabitant of Latin America and the Caribbean generates on average 1 kg/day of urban waste, which adds up to around 541,000 t/day of waste, a figure that is expected to increase by at least 25% by 2050. This increase is in turn related to global phenomena such as population growth and the trend towards urbanization, which in the region has reached 80%. Considering the current waste generation rate (regional average of 1.04 kg/inhab/day), it was estimated that in 2014, urban waste generation in Latin America and the Caribbean was 541,000 t/day, a figure that could reach at least 671,000 t/day by 2050.

The results observed in the ecological field in large cities are related to problems inherited from the past that come from customs, the social imaginary, the state of economic dynamics at a given time, the political decisions taken by societies, even what was once understood as episteme or cultural background, the basic assumptions of long-term knowledge in which historical facts move. The Western tradition that sees nature as an instrument or as a resource to exploit, is akin to the use-and-dispose attitude, characteristic of the type of human being that emerged within it, that is, that does not understand waste as part of a system that is returned to us or nature as part of a whole to which we are integrated. In that sense, our image of the latter does not refer to our being part of it or to its being composed of a substance identical to our own, but rather a space in which there are only tools to be used and discarded once they are no longer useful.

Such cultural background operates in almost all countries, for the case of Colombia during 2020, 26.25 million tons of solid waste and residual products of all types were produced as a consequence of the various processes related to production, consumption and accumulation of goods and services. Within this, it has been found that 86.3% is equivalent to solid waste (discarded materials, plastics, metals, glass and organic materials). On the other hand, 13.7% corresponds to residual products, which comprise unwanted or leftover products that include components or by-products of industrial and consumption processes, which shows that there is a need to develop and effectively address waste management to reduce environmental impact and promote sustainable practices (DANE, 2021).

In the context of solid waste management in the community of La Primavera, it is crucial to understand that this problem not only affects the environment, but also the quality of life and social cohesion among its inhabitants, which is why, by addressing this problem through a comprehensive intervention, it was possible to verify how actions related to solid waste management had tangible effects on various aspects of community life. On the one hand, by implementing effective solid waste management measures, such as selective collection, recycling and proper disposal of waste, negative impacts on the local environment are

mitigated, such as soil and water contamination, and reduction of public health risks, which in turn contributes to improving the quality of life of residents by providing a cleaner and healthier environment.

On the other hand, an intervention in solid waste management was an opportunity to strengthen social cohesion within the community, as explained above. By actively engaging residents in environmental education, volunteering and organizing initiatives around the issue of recycling, it was possible to foster to some extent a sense of belonging and collaboration among the inhabitants of the sector; something that promotes an improvement in attitude and beliefs that serve ecological citizenship. By designing an intervention program that addressed both solid waste management and organizational meta-contingencies, a holistic positive change was generated in the community.

On the other hand, an improvement in the image of the neighborhood was also achieved, and this helps to change the imaginary that the inhabitants of other sectors of the city have about the neighborhood, and may modify urban segregation behaviors. From this point of view, projects involving communities and public space intervention should promote social integration. Pérez (2011) mentions that “this does not imply a homogeneous spatial distribution but an integration policy in the sense of avoiding social exclusion”.

Architectural and Spatial Dimension

As for factors related to space and habitat, these are undoubtedly fundamental factors that are intertwined with cultural factors; communities settle somewhere in space and develop their beliefs there. The lack of a design proposal and urban equipment prior to the intervention in the study area is a common factor in various peripheral sectors of the cities of Colombia and other developing countries, which can affect the way in which community relations and the socio-spatial relationship are carried out.

Das (2001), explains that “social relations are spatial relations, and the fact that they are so makes some differences in the way society functions including conflicts and appropriation of public policies”; in this sense, Massey (1991), also explains that the spatial aspects of social relations specifically affect the way social relations work, being necessary for these to occur or even preventing their operation.

This is why it is necessary to develop interventions that foster community cohesion (Fernández & Dos Reis- Pereira, 2017), in this case through figures such as volunteering, supported by another part of community participation, become alternatives for university students to make a difference in the development of their experiences from learning, cultural exchange and sustainable development (Melles, Lodewyckx and Hariharan, 2022).

In the case of the intervention in the Villa Juana neighborhood, regarding the implementation of the design and urban furniture in the ecopark of the La Primavera sector, the physical activities developed through it had an endogenous development, which according to Ramos (2006) is a development from within, which takes advantage of the resources and knowledge of the community, where the people who participate develop their own proposals, the leadership is born in the community, and the decisions start from within the community itself.

One of the main strengths of this type of proposal is the creation of scenarios for participation, since they allow for transformation from within the community. Community work generates a sense of belonging, making them key actors in decision making, promoting changes in lifestyles and lifestyles, according to their needs.

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