The family garden and culture: a space destined to medicinal plants in Xochipala, Guerrero

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Abstract

The family garden, which reflects the management and knowledge about the environment that surrounds a human group, is the space or the area surrounding the house. For Alvaréz-Buylla and Lazos (1983), perennial and annual plants with different uses are cultivated and protected, either for self-consumption or for surpluses. Regarding this point, Gispert (1993) adds that in this site there are also social, biological and agronomic activities, which constitutes an economic unit of self-consumption at the door of the home. This article aims to value the family garden as a social inheritance. Although for Gutiérrez (2003), the family garden shows the relationship between social groups and plants, which persists despite the irruption of the development of civilizations or the proximity to large cities, Gispert (1993) expresses an aspect of the cultural identity of a human group in relation to nature. For Gispert (2005), this society-plant relationship is always dynamic; on the part of society, cultural, ideological, political and economic phenomena intervene, and on the part of the plant, the environment with its biomes and floras. To affirm that the family garden is part of the cultural identity of a social group, it is necessary to document and study the functions of said system and the management of plant diversity, to understand the relationship that exists between a social group and the environment that surrounds it, and finally understand that all of the above is part of the culture and identity of a community.

Keywords: culture, family garden, traditional medicine and social heritage, Xochipala.

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Introduction

This work aims to value the family garden as a social inheritance, this is important because this space is considered, primarily, by specialists, on this later it will be treated, as a reservoir of germplasm or facilitator of the stability of nature, it is to say, the social inheritance that is concentrated in it is left aside, since the species that are cultivated in it, on the one hand, complement the diet and help in the problems that deteriorate the health of a human group and, on the other, they show the knowledge and management of the environment, that is why the family garden is part of the social heritage of a human group and how to consider it, primarily, a reservoir of germplasm causes its detriment, therefore in this work it is approached to resignify the family garden from the point of view of culture.

The conception of the specialists on the family garden, on the one hand, start from the assumption that the relationship of the human being and nature corresponds with the transformation of this to produce material goods, and on the other, specialists mention the link between the garden family and culture. Regarding the first, Toledo (2000) points out that the family garden is a reservoir of germplasm and useful species are domesticated, which coincides with Herrera (1992), who points out that the family garden is cultivated with different uses. In this sense, Gómez-Pompa (1993) points out that in the orchard species are adopted, selected and improved, the above corresponds to what Alvarez-Buylla and Lazos (1983) said, for these specialists, in the family garden they are cultivated and protect species with different uses. For its part, Niñez (1990) highlights that in the family garden varies according to geophysical factors, which agrees with what was said by Herrera (1992) and Mariaca (2010), because for them the floristic composition of the family garden is interrelated with the environment.

Regarding the link between the family garden and culture, Gispert (1993) shows that social, biological and agronomic activities are practiced in the family garden, which coincides with Niñez (1990) on the fact that the family garden varies according to factors geophysical, social and cultural. Similarly Mariaca (2010) specifies that the family garden maintains a relationship with society and with the culture where they are immersed, in what concur with Herrera (1992), Toledo (2007) and Niñez (1990); in which the family garden allows to recognize and infer the culture in which it is immersed. In this regard, Gutiérrez (2003) mentions that the family garden shows the relationship between social groups and plants.

In the considerations of the specialists on the family garden, the relation of this space with the culture is glimpsed but they do not deepen, also they start from a conception of culture sustained in the relation human being and nature, as well as they link it with the culture by the activities social activities that take place there.

Culture is a repertoire of habits and aptitudes inherited, heterogeneous and changing, produced and acquired by man in society, these habits and skills are objectified in the form of observable practices, but at the same time they are internalized in the form of social representations. In addition, the culture reflects the way in which the human being adapts and adapts the environment. Among the habits and aptitudes are traditional medicine, gastronomy and rituals.
Traditional medicine, on the one hand, alludes to knowledge, beliefs, practices and symbols to maintain physical and psychological health, as well as to alleviate diseases; and on the other, it represents a cultural baggage, differs between each culture, varies over time, has been influenced and complemented with the medicinal knowledge of other cultures, uses substances of vegetable, animal and mineral origin, this knowledge includes the classification of diseases and medication dosage; In addition, it is transmitted orally and is culturally inherited. In the words of Anzures and Bolaños (1981), the traditional medicine or therapeutic system of a people is a substantial part of their culture, because it is the set of knowledge, beliefs, practices, material and symbolic resources that come from the people, and is transmitted from generation to generation.

To assess the family garden as a social heritage, first, the characteristics of the family gardens were identified from a biological and anthropological perspective, as well as the concepts of culture and traditional medicine, both in specialized texts; then, the family garden was characterized in the community of Xochipala, Guerrero, and subsequently were analyzed and evaluated, the results of the research of 2008 and 2012, together with that of Cervantes (1992) in the light of the conception of culture as a social inheritance.

This work is based on the proposition that the family garden is part of the social heritage of a people, because it is the space located, preferably, in the backyard of the house and intended for the cultivation of plants and animal husbandry, plants that are cared for and cultivated within the garden have different uses: medicinal, ritual, nutritional, and more; both the use of plants and the process of construction of the family garden involve habits and skills acquired orally, visually and gesturally from parents to children; therefore the family garden represents a part of the social inheritance.

To deal with the family garden as part of the social inheritance, first, the family garden is characterized in the Xochipala area, and then the results will be presented, as well as the analysis and evaluation of the results arising from the research Cervantes (1992) and those made in 2008 and 2012 in light of the conception of social inheritance.

**Development**

About the family garden in the community of Xochipala, several studies have been carried out, two focus on the vegetable species present in family gardens, on the one hand, Cervantes (1992) and, on the other, the one that was carried out in 2008; when contrasting the results of these studies, a reduction of the plants with medicinal use in the family garden is perceived, that is, the detriment of the social inheritance in this space. A third study, which was conducted in 2012, shows that there are correspondences between the factors that deteriorate the knowledge of medicinal plants and the factors that affect the family garden in Xochipala.

**The family garden in Xochipala**

Xochipala is located in the central region of the state of Guerrero, Eduardo Neri municipality. Xochipala is located in an area of low deciduous forest (Rzedowski, 1978), whose vegetation is distributed between 0 and 1700 meters above sea level. This ecosystem presents an average annual temperature of between 20 °C and 29 °C, and has a predominant climate in the area, according to
the Köppen classification; according to Garcia (1975) it is warm-semi-humid, and for Meza (1990) it is hot-humid (Aw). Among the most important activities carried out by the inhabitants of Xochipala are agriculture, livestock and trade.

The family garden, for the inhabitants of Xochipala is the space located, preferably, in the backyard of the house, where they plant their plants, raise domestic animals and carry out various activities, some of them complementary to their agricultural work, how it is dried of its seeds, beans, chili, corn, etc., the shattering of corn, the handling of stubble, among others, and others of a social and cultural nature such as parties and meetings with family and friends, as well as musical gatherings, and more, for them, the family garden is a place that provides multiple satisfactions that contribute to enjoy life (González, 2008).

In Xochipala, family gardens are dynamic systems that are constantly changing and interacting with the surrounding environment. There are differences in management and knowledge by gender, ages, areas of activity, species and control over the products of the garden. In all cases, women play an important role in the composition, care, use of the garden and its products (González, 2012). The establishment of the family garden begins with the search and obtainment of plant material (bulbs, seeds, seedlings, tubers, roots or cuttings) in the wild. As for the structure of the garden, women are responsible for the zoning, by designating the place where the different groups of plants will be. As time goes by, the orchard's configuration approaches, to a large extent, the structure of the bordering natural ecosystems, reaching a high plant variety that entails a complex stratification. The foregoing elucidates that the establishment of the family garden is the product of social inheritance.

It is worth mentioning that the study conducted in 2012 focused on the adult population, older adults and children, interviewed the former and surveyed the latter. The children surveyed were a total of thirty-six students enrolled in the high school “Heliodoro Castillo” and the primary school “Vicente Guerrero”, the ages of children range between eight and thirteen. 64% of children live with both parents, 28%, with their mother, 5%, live with their grandmother and 3%, with a brother. This shows that parents or, at least, an adult is in charge of their training; that is, the transmission of the repertoire of habits and aptitudes corresponding to the social inheritance.

**In light of the social heritage**

Taking into account the research carried out concerning the identification of the vegetable species present in the family gardens, the family garden is considered part of the social inheritance, because the decrease of this in relation to traditional medicine affects it, therefore, for a On the other hand, Cervantes (1992) reports 162 species, 75 (46.9%) of them with medicinal use; On the other hand, the one carried out in 2008 yielded 184 species present in the orchards of Xochipala, of which 47 (25.5%) species with medicinal use; when comparing the results of these studies, a reduction of 31 plants that were not used as medicine was observed and in some cases they were reported as ornamental species, for example the huamúchil (*Pithoececblobium dulce* (Roxb.) Benth.) and the floripondio (*Datura candida* (Pers.) Saff.) (Figure 1); this shows that the deterioration of the social inheritance in relation to medicinal plants corresponds with the detriment of this space.
Based on the research carried out in 2012, it is considered that the family gardens of the Xochipalenses are part of the social heritage, because, in this research, adults and senior citizens of the community know the use of medicinal plants in their family gardens, because the diversity of species collected and mentioned by the informants was of seventy-seven species grouped into thirty-five botanical families (Figure 2).

**Figure 1. Percentage of each category of use (González, 2008).**

**Figure 2. Botanical families of medicinal plants best represented.** Data collected in the field by this investigation (González, 2011).
The family garden is part of the social inheritance of the adults and elder Xochipalenses since, in the investigation of 2012, the seventy-seven species found in the family garden with medicinal use were divided into cultivated and wild, that is, those deliberately propagated by man and those that grow spontaneously: 67% are wild and 33% are cultivated, this indicates that the use of wild plants predominates (Figure 3). The foregoing demonstrates that the family garden is a portion of the social heritage of the Xochipalenses regarding the plants used for medicinal purposes that are wild and that are in their family garden.

**Figure 3. Percentage of wild and cultivated species out of a total of 77.** Data collected in the field by this investigation (González, 2011).

In addition, with the above noted it is found that the family garden is a part of the cultural heritage of the adults and elder Xochipalenses, because to cover their health needs they use herbs, these are, mostly, wild: some are obtained in the field and others grow spontaneously in the family garden, and when the wild plant has the conditions to integrate into a family garden, they grow it in this space. According to Hersch and Fierro (2001), the use of wild plants is a reflection of the diversity of floristics of the country and its biological and social implications, to this we can add the link between the medicinal flora and the diverse populations, and therefore of the social inheritance in each community.

According to the study carried out in 2012, the information given by adults and senior citizens of the community regarding the seventy-seven species of the family garden was grouped according to its use in fourteen health problems (Figure 4), among which stomachs stand out, respiratory, buccal, renal, dermatological and diabetes. However, there are other forms of employment that are important: for nervous problems, fever, body aches, feminine problems and the care of newborns. This denotes the great variety of affections that are treated with medicinal plants, in other words, the family garden for the inhabitants of Xochipala is an important segment of the social inheritance corresponding to traditional medicine.

Older adults and xochilpalense adults, according to the research of 2012, have a wealth of social heritage related to traditional medicine and the family garden, as the data obtained in this research (Figures 5) agree that for a large variety of diseases and there are endless remedies of plant origin
for them, according to Mendoza (2007), this is a product that since man has memory, plants have been essential for their survival: first, they used them as food and subsequently, for the various uses and activities, including the practice of medicine, either to preserve or to return the lost health. At the same time, Herrero (1989) highlights the importance of specialties and therapeutic resources that are part of popular culture, within which the disease must not only be seen as an organic lesion but above all as a phenomenon in a cultural context.

Figure 4. Representation of the uses that are given to medicinal plants. Data collected in the field by this investigation (González, 2011).

The survey applied in the 2012 study evidenced a detriment of the corresponding social inheritance with traditional medicine and the family garden in the Xochipalenses children: on the one hand, for diseases such as diarrhea (Figure 6), cough (Figure 7), the toothache (Figure 8) and the “empacho” (Figure 9), the children know some medicinal plant, but, most of them are plants introduced and cultivated, that is, they are not typical of the area, and on the other hand, diseases such as fever, headache and stomach parasites mostly do not know any plants. Also, it should be noted that children make clear reference to the part of the medicinal plant that is used to make the remedy and cure certain diseases and, in some cases, gave as response more than one. The fact that a species is reported for a particular disease shows the high selectivity and effectiveness of the plant, as well as the social inheritance of the informants in relation to medicinal plants. In view of the above in the Xochipalenses children the social inheritance is reduced.
Figure 5. Percentage corresponding to the used part of medicinal plants. Data collected in the field by this investigation (González, 2011).

Figure 6. Percentage of students who know a medicinal plant for diarrhea. Data collected in the field by this investigation (González, 2011).
They do not know

- Eucalyptus (leaves and flower) 35%
- Borage (leaves) 13%
- Lemon (leaf/with honey) 13%
- Orange (fruit) 5%
- Bugambilia (flower) 3%
- Basil (flower) 3%
- Zepoaxuchil (flower) 3%
- Damiana (leaves) 3%
- Texiucli (leave) 3%
- Lemon (leave) 3%
- Bitter (fruit) 3%
- Damiana (leaves) 3%
- Orange (fruit) 5%
- Eucalyptus (leaves and flower) 13%
- Borage (leaves) 13%
- They do not know 35%

Figure 7. Percentage of students who know a medicinal plant for cough. Data collected in the field by this investigation. González, 2011.

The survey carried out on the Xochipalenses children in the 2012 research allows to see the scarce social inheritance and the little participation in the traditions in relation to the traditional medicine and the family garden: in the majority, children do not know which plants are used or used as medicine and few intervene both in the establishment and in the care of the family garden.

They do not know

- Epazote (leaves) 48%
- Tomato (fruit) 11%
- Clove pepper (seeds) 6%
- Chamomile (leaves, flower and stem) 3%
- Aloe (root) 3%
- Peppermint (leaves) 3%
- Zempoasuchil (flower) 3%
- Pepper (leaves) 3%
- They do not know 20%
- Epazote (leaves) 48%

Figure 8. Percentage of students who know a medicinal plant for toothache. Data collected in the field by this investigation (González, 2011).
They do not know (leaves) 38%
Epazote (leaves) 30%
Chamomile (leaves, stem and flowers) 5%
Peppermint (leaves) 5%
Banana (leaves) 5%
Artemisa (leaf and branch) 2%
Cinnamon 3%
Damiana (leaves) 3%
Jarilla 3%
Becerrero 3%
Guava (leaves) 3%

Figure 9. Percentage of students who know a medicinal plant for empacho. Data collected in the field by this investigation (González, 2011).

In the investigation of 2012, it is verified that the family garden is part of the social inheritance, because the knowledge transmitted from generation to generation allows the selection of the plant species to cure certain diseases and the obtaining of the species from the natural environment: 38% it gets it in the field (wild), 31% grow it at home, 22% buy it and 9% acquire it as a gift from a neighbor, which shows that to obtain the medicinal plants they still go to the field, in other words, it reflects the importance of the environment (Figure 10). In addition, these plants are moved and grown in the family garden, as long as the plants have the conditions to adapt, for later use.

Figure 10. Percentage of respondents who know the head of black. Data collected in the field by this investigation (González, 2011).
In the 2012 study, some factors are needed that affect the knowledge that the Xochipalenses possess about traditional medicine and the use of medicinal flora, such as migration and modern means of communication, these also deteriorate the family garden and the chain of oral transmission. In this regard, two aspects stand out, the first, due to the migratory phenomenon in the community of Xochipala, there is a difference of use and knowledge among adults, older adults and children, because while adults conserve a wide social heritage in relationship with the management of medicinal flora, on the other hand xochipalenses children have a small social inheritance because they do not know the use of medicinal plants, that is, they have another perception of them.

Second, in recent years, the family garden has been modified by the return of migrants who left for work in the US years ago, because upon arrival the parents divide the land where the house and the family garden are located, in order to build their home, which has reduced the space for the cultivation and care of plants. From the cultural point of view, the most serious of this situation is the decrease in the number of plants present in the garden and, as a consequence, the medicinal flora. Migration causes, on the one hand, the modification of the family garden, and on the other, it promotes the use and knowledge of medicinal plants, since the migrants that are in the USA. They ask that they be sent for their use.

**Conclusions**

In this work, the family garden was treated as a social heritage through the community of Xochipala, of which the following stands out:

For some researchers, the family garden is a reservoir of germplasm and a facilitator of environmental stability, but very few relate it to the culture of a human group or conceive it as part of the social heritage of the people. To which we could say that you can have a space adjacent to the house with a great biological diversity but not knowing what you have and what it is for.

It should be noted that the decrease in knowledge of medicinal plants corresponds to the decrease in the diversity of medicinal plants in the family garden, this affects the social heritage of the population.

The factors that affect the use and knowledge of medicinal plants also alter the family garden: migration, ecological deterioration, the intrusion of health services, the change in the economic level and modernity (in the case of Xochipala, the proximity of Iguala and Chilpancingo, these are two of the most important cities in the state of Guerrero) and the mass media.

Finally, it is urgent to stop giving priority to the conception of the family garden as a reservoir of germplasm and as a facilitator of the stability of the environment, as this has caused its decline and its detriment, to conserve and spread the family garden it must be based on the assumption that it is part of the social heritage of the people.
Cited literature


