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An ethnography of urban collective gardens in Haute-Garonne: Contribution to the sociology of sensory experiences

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Sensitive experiences made in the interaction between gardeners and their gardens have been studied in Occitania, as part of a research thesis in environmental sociology. Entering through situated experiences, we put into perspective a pragmatic reading making it possible to make visible in the gardens sensitive, ordinary, affective and emotional elements; which are discussed with the gardeners to clarify their beliefs, feelings, representations, values, and thus understand their intentions, knowledge, practices and techniques developed in the gardens. More broadly, our research explores how sensory experiences in the garden contribute to the reconfiguration of relationships with the environment on the one hand and with other humans on the other. The research hypothesis tested is as follows: "Through the grips they generate both in the body and the mind, through gestures, the mobilization of the senses, techniques, objects, sensitive experiences into garden strengthen the freedom and creativity of gardeners in their relationship with the environment." An embedded ethnology in contact with experiences in the gardens is mobilized as a survey device to shed light on the sensitive aspects. The observations and exchanges with the gardeners immersed in the gardens, allow the integral restitution of *in situ* experiences in connection with things, beings, places and atmospheres.

KEYWORDS

sensitive experiences, agroecology, urban gardens, pragmatics, human-nature interaction

1. Introduction

Global changes and threats related to wars and epidemics encourage civil society to develop more ecological, meaningful and empowering, alternative agro-systems. In this context, urban collective gardens are developing, because they respond to the need of reconnecting with nature, sensory experiences, quality food, and promote human interactions. This introduction first presents a brief history of urban collective gardens in France and their specificities. Then previous research studies devoted to sensory experiences in these gardens are summarized and the original ethnography of urban collective gardens in Haute-Garonne is finally introduced.

1.1. Historical trajectories and specificities of collective urban gardens in France

From allotment to family and shared gardens, the gardens present a path that adapts and adjusts to the context in which it evolves (Scheromm, 2015). Dubost (1997, p. 47) quoted the rural code which defines allotment gardens as: "any bridge of land that its operator cultivates personally in order to meet the needs of his household, to the exclusion of any commercial profit." This name (family gardens), according to Dubost replaced that of allotments, identified

in the form of collective housing estates grouping plots separated from the house, and intended for the inhabitants of collective buildings in urban areas. It should be remembered that these allotments were born from a Western European context in the 19th century with the deterioration in urban areas of sanitary and food conditions, allowing the worker to benefit from a pavilion with a garden. That vision was carried by F. Le Play and shared by the Deputy J. Lemire, founder of the “league of the corner of the earth,” which later became the federation of allotments in France (Den Hartigh, 2013). For Dubost, it is the text of the law of 1979 which clearly defines allotment gardens as collective gardens, also underlining the economic context of the 1970s attributing a social image to gardens. The collective garden, also sometimes called community garden, experienced a strong breakthrough in the 1970s in the United States and 90s in France (Baudalet-Stelmacher, 2018; Dubost, 2018). In a bill registered in the collective gardens refer to family gardens, integration gardens and shared gardens. These collective gardens have taken off, supported by public policies (provision of land and funding for current operations) with the aim of encouraging city dwellers to reconnect with the nature (Dubost, 2011).

Allotment gardens are defined as land divided into plots, allocated by local authorities or by allotment garden associations to individuals practicing gardening there for their own needs and those of their families, excluding any commercial—shared gardens, such as gardens created or run collectively, aimed at developing local social ties through social, cultural or educational activities and being accessible to the public—and integration gardens created or used with a view to promoting the reintegration of people in a situation of exclusion or in social or professional difficulty. These gardens can be, divided into plots allocated to these people on a temporary basis. According to Guyon (2008), the economic, political and social contexts have consequences on the historical trajectory and the evolution of gardens. The shared garden is a French story that stems from family gardens and also community gardens that appeared in New York following the economic crisis of the 1970s, carried by the associative movement green guerrillas to reclaim wasteland and transform into shared gardens (Demailly, 2014; Baudalet-Stelmacher, 2018). However, even if since 1997 the movement of shared gardens has been instituted in France with a charter supported by the foundation of France, these gardens retain persistent and irreducible elements of imagination and sensibility, making it possible to produce another epistemology from ordinary practices.

Moreover, in the context of global changes, these collective gardens are becoming (beyond food production), spaces of freedom, creativity, link to nature and well-being (Clatworthy et al., 2013; Salomon-Cavin and Granjou, 2021). In France, actually, urban agriculture (UA), including urban gardens, is gradually establishing itself as an “innovative” device in new urban renewal programs from the French agency for urban renewal (ANRU, 2020). It thus revisits the relationship between city and nature and contributes to the development of alternative agricultural practices: agroecology, organic farming or permaculture (Scheromm, 2015). Indeed, densely populated urban areas impose constraints on agricultural activities: ban on the spreading of synthetic pesticides to comply with the Labbé law (Ecophyto, 2022) progressively reinforced in France since January 2017 (the State, local authorities and public establishments can no longer use synthetic phytosanitary products for the maintenance of

green spaces, walks, forests and roads); multifunctionality to deal with land use conflicts; more voluntary consideration of potential historical pollution with the French ALUR law [March 2014, no. 2014-366, for renovated urban planning and to improve the systems for knowing soil pollution by setting up the Soil Information Sectors (SIS in France)... UA is practiced in several forms depending on the context (available space, soil quality or light) and the objectives aimed by the different involved stakeholders. First considered as a traditional object of geography and architecture, the urban collective garden is then studied from sustainability point of view, urban dynamics and multifunctionality within the various public action mechanisms (Wegmuller and Duchemin, 2010). Recently, the garden has also gradually become an object of study in the social sciences, often explored within the framework of interdisciplinary research programs (Dumat and Bories, 2021). Today, the garden deeply adapts and adjusts to the global changes context in which it evolves, and have gradually been the subject of researches focused on its functioning as an organization and then on the political roles on the resilience of the cities (Grandschamp and Glarton, 2021). Nowadays, the French urban collective gardens are mainly characterized by a rise in ecological issues and critical questioning of the consumerist economic model.

1.2. Sensory experiments in the gardens

The garden is everywhere: at the heart of stories, poems, imaginations and forms of intellectual sensibilities. In her anthropology thesis entitled: “Gardens of land, gardens of sea in Tongoa...” Calandra (2017) presents an anthropology of domesticated nature in an environment affected by the disaster. She concludes that for garden users, the disaster cannot be assessed, not by the loss it has caused in terms of infrastructural and financial cost (as is the case in the West)—but above all by making a particular attention to the destruction of a long-established plant heritage that it has caused. It also highlights the role played by the spirits of the dead in the development of gardens since, according to the beliefs in force on the island of Tongoa, they would ensure the growth of plants. Gardens are therefore experiences made up of symbolic, imaginary and sensitive relationships to the world.

In the book: *Democracy in the fields*, subtitled: *from the Garden of Eden to shared gardens*, how agriculture cultivates democratic values, Zask (2016) takes the example of the Garden of Eden, the founding story of the Christian religion. As it has been described in the biblical text, God after having created the earth (garden of Eden), places Adam (the first of Humans) there in order to cultivate it and keep it—through this ontological vision, Zask maintains that the garden is a vital support which man must take care of and create there a project today qualified as political ecology.

Gardens are places of collective memory, to stay connected to ancestors, and perpetuate ancestral practices and knowledge, as in the Creole gardens of the West Indies, with medical, food and aromatic plants (Marc and Martouzet, 2012). The garden is a place of creation of experiences and representations of the countryside in the evolution of modes of living in the city, bringing into dialogue: city, nature and agriculture (Nahmias and Le Caro, 2012; Scheromm, 2013). Likened by gardeners to a heavenly place of urbanized nature (Albert, 2019)

and often represented as a playful leisure space (Duchemin et al., 2010).

“It gives me pleasure, I look at this mountain, I search within me for the trace of an animal sensation, of the tide which is reversing. Nothing prevents me from watching, from focusing my gaze, from looking for the slightest detail, from scrutinizing the slightest movement, from examining. I must say that I take great pleasure in looking at what is there, what is in front of me, wherever I am. I look at the landscape, I count the occurrences of each thing. I spy the game of birds of prey with the wind. I study it. I fix one after the other, the intersections of lines. I peep, I devote myself to a scrupulous inspection, to the rigorous inventory of the elements of composition. I admire the harmony of the composition, I observe, notice, mark eyeing, analysis. I look at everything in front of me, I take care of the onions of the landscape.” The excerpt from this poem by Batalla (2007) illustrates how the poet places his gaze and his attachments on the landscape by extracting from it all the perceptibility it contains. In a survey conducted in two fields (France and Russia), Robert-Boeuf (2018) concluded that gardening is an emotional and sensitive practice. According to the author, the garden is a space of the order of emotion, where a sensitive and collective dimension of gardening is created which shows the way in which individuals are anchored in the territory and transform it thanks to the practice and agricultural exchanges (Robert-Boeuf, 2018, p. 9). The sensory experience is marked in the peasant environment, for example, the peasant seeds network—whether in the body-to-body relationship between the farmer and his experimentation with plants—or the type of attachments he develops for such plant variety (Demeulenaere, 2013).

1.3. Aim and originality of the research study

If first, the collective gardens had roles rather framed by the authorities and left little room for daydreams and personal fulfillment, gradually this dimension of sensitive link to nature increases. Collective gardens allow reconnection to the world through sensory experiences, and also contribute to the development of individual and collective capacities (autonomy, creativity and transmission), in particular through concrete and volunteer actions (observing, developing or cultivating) and releasing: forgetting one's worries or relativize their frustrations.

Sensory experiences made in the interaction between gardeners and their gardens have been studied in various contrasted sites in Occitanie (south of France), with gardeners from different life paths. Starting through situated experiences in the gardens, we put into perspective a pragmatic reading making it possible to highlight sensitive and emotional elements. These elements were discussed with the gardeners to clarify their feelings, representations, and values, and thus understand their intentions, knowledge, practices, and techniques developed in the gardens. More broadly, our research explores how sensory experiences in the garden contribute to the reconfiguration of relationships with the nature on the one hand and with other humans on the other. The research hypothesis tested is as follows: Through the changes they generate both in the body and the mind, the sensory experiences in the garden strengthen the freedom and creativity of gardeners in their relationship with nature.

2. A pragmatic sociology approach to study the sensory experiences in the urban collective gardens and their consequences on the state of mind of gardeners

2.1. Fields studied and methods implemented

During 18 months, the sensory experiences of the gardeners were studied during the various stages of cultures from seed to harvest, and the close relationship with the gardeners, facilitated the surveys. This research contribution in environmental sociology results of a series of surveys of garden stakeholders (gardeners, animators, elected officials, etc.), observations and meetings with the various persons involved in the use and the management of urban collective gardens in Haute Garonne (social services, associations: Partageons les jardins, Réseau-Agriville, etc.). This ethnography allowed both to grasp the pragmatics of the essential experience of the garden and to go back and forth between the empirical materials collected from the field and the theoretical analyses. Studied gardens were chosen as a panel of contrasting neighborhoods, sizes and organizations, with different populations using the gardens (geographic origin or socioeconomic status). Surveyed gardeners were then randomly chosen during field visits, even if as possible, we contrasted individual and collective interviews. We developed that pragmatic sociology research on the eight allotment and shared garden sites in Haute Garonne: three allotment garden sites managed by the Haute Garonne associations (Balma, Al Péchiou, and Chantelle), a site (Ginestous) managed by the French allotment garden federation (FNJFC) whose head office is in Paris, the Monlong site managed by the town hall of Toulouse, the farm of 50 in Ramonville and two other educational gardens for biodiversity managed by the association Dire in Ramonville, near the library and the eco-park of house of solidarity economy. The association “Let's share the gardens,” proposes a map of most gardens in the Toulouse region (<http://partageonslesjardins.fr/carte/>) with various information such as the available internet site for instance in the case of Al Péchiou (<http://www.jardinsfamiliauxgaronne.fr/>).

Thirty semi-structured interviews (average time of 50 min), and 180 direct field observations were performed in order to observe ordinary practices, techniques and experiences in contact with the elements and ambiances of the gardens.

An observation notebook was used for each site, with a sheet for each respondent. Our interview grids contained around 20 open-ended questions per explored theme (the practices, the interaction with human and non-human world, the sensory experiments in the garden...). We performed up to six visits (direct observations) per garden or plot, depending on the availability of the gardener. The collective maintenance over shared gardens were preferred for availability reasons. As a “pragmatics of experience” of the garden was chosen as methodological and epistemological scientific research to approach the sensory experiments happening in the gardens, we avoid to use a strongly detailed analytical framework.

Our method of investigation is a pragmatic sociology approach (ethnography) as described by Cefaï (2010). Focusing on the study field, in this way we can explore both the original practices and

sensory experiments of gardeners and the interstices, the neglected areas, in order to then observe the different modes of changes on the mind and body of gardeners, the circulation of percepts and affects, as well as the transformation and reconfiguration processes involved in it (Chateauraynaud and Debaz, 2017). This immersion in the gardens makes it possible to better identify the ingredients that make up the experiences of gardeners and their relationships with the human and non-human world. For instance, on Monlong site, we developed the research project every Wednesday for 3 months at various moment of the day, in order to follow various activities (the workshops of animations, harvests and sharing of vegetables...) and exchange with a diversity of gardeners' profiles.

In addition to interviews and field observations, photography makes it possible to grasp this part which is expressive, gesture, sensitive expressed, and especially for the aesthetic aspects in the gardens. Indeed, a combination of these complementary tools allows us to better describe our studied object. The interviews help us to understand the restitution of the sensory experience by the gardeners, their perceptions and representations of garden activities. The visits allow us to directly follow the experiments and compositions that the gardeners make to deal with the daily problems that they encounter in the gardens. They also help us, beyond the discourse and the rhetoric mobilized, to better observe the relationship between discourse and practices. Photography, on the other hand, allows us to capture the authenticity and the spontaneity of the experience. Actually, when someone makes a gesture, keeps silence in an activity or a demonstration, these can only be restored if its nature and essence are captured by a photo or a video, without adding any further modification.

2.2. Theoretical framework

An embedded pragmatic sociology approach, in close contact with gardeners was mobilized as a survey device to capture happening sensory experiences in the gardens. The conceptual theories of two authors involved into recent research projects focused on pragmatic approach in the field of the environment were used to analyze our field data: Cefai (2010, 2016) and Chateauraynaud and Debaz (2017). They respectively focused on: (1) the sociology of collective action and public problems; and (2) health and environmental risks and the field experiences. The publications of Bulle (2020) were also mobilized, for the pragmatic description of alternative experiences on different French sites with controversial uses (Bure and Notre Dame des Landes). Dewey (1934, 1938) is one of the founders of pragmatic sociology in the second half of the 19th century. Dewey's pragmatic approach developed in the fields of aesthetics, politics, social and pedagogical aspects, can be used in a relevant way to analyze sensory experiences in gardens. Pragmatic, Dewey was attentive to the consequentialist of the various field experiments, including aesthetic experience throughout a democratic approach of artistic field. Further, Zeitler and Barbier (2012) stated the reversible dimension in the experience: "The experience then appears as an agglomerate made up of an action on the world, of the consequences of this action in terms of transformation of the world, and of the transformation in return experienced by the person following this action." Moreover, according to Cefai (2016), sensitive interactions with the garden produce both subjective and social

experiences. Indeed, sensory experiments promote hold on the world (Chateauraynaud and Debaz, 2017). In his article: "Publics, public problems and public arenas... What does pragmatism teach us?" Cefai (2016) invites to re-anchor the formation of public problems in experience and places the ecology as a new way to deal with public problems. Mead (1929, 1938) proposes recapturing experience in its experiential habitat, because it is not part of subjective experience, so he speaks of the forms of transactions that forms of life maintain with their environments (Cefai, 2016).

Through the book "Aux bords de l'irréversible" (Chateauraynaud and Debaz, 2017) propose a pragmatic sociology to identify how the field experiences open up new perspectives for citizens. The interstices, are places where original projects, freedom to act and reconfigurations are played out. For example, urban sites reserved for alternative agriculture projects are often flood-prone areas. In the context of our research project in collective gardens, field sensory experiences are studied as processes that induce changes on the relationships of gardeners with the world. Finally, in her book "Irreducible," drawn from a series of field surveys, Bulle (2020) offers an enriching reading on the diversity of the forms of field experiences (particularly in the case of sites with controversy uses), which she qualifies as irreducible, since they escape the exercise of categorization of classical sociology. These alternative field experiments are riddled with conflicts and internal criticisms of the dominant system, and are based on what Bulle (2020) calls affinity forces and a desiring power, around the principles of non-domination, solidarity, and the rejection of authority, also currently observed in collective urban gardens.

3. Field data presentation and discussion

3.1. Engaging the senses in the garden

Sensory testing is a means of entering into the folds that manifest themselves in sensory experience (Bessy and Chateauraynaud, 1995). Diving into the garden allows us to appreciate from a pragmatic point of view all its ordinary properties. In the garden, the body in the sensory test is both in the grips when it comes to finding supports, especially experiences buried in the body to remain in a state of awakening and vigilance, and also under the influence, when the submerged body is looking for a state of inner well-being. Smell, sight, touch, taste and hearing were frequently mobilized in the garden. There is always a test of knowledge and recognition to undergo in the garden: a gardener makes you visit his garden, he shows a plant or makes you smell a leaf or a flower, especially for aromatic plants, and allows you to guess or restore the lived experiences according to the buried memories. Sight and smell as sensitive devices are particularly used in the detection and evaluation of the quality of the environment in the garden (a point that we will detail below). When you arrive in someone's garden, the current sentences exchanged are: "How beautiful is your garden!"; "it's well done"; "my garden is not beautiful at the moment, I was not there"; "I don't have many plants as you can see..."

The garden is a perceptible object—there is always something there to (re)feel, observe, listen to, describe or explain. Taste, like smell, is also very active there, and most often captured in the restitution of lived experiences. The garden can generate positive

emotions and feelings through contact with nature and social interactions. Immersion in nature has recognized beneficial effects on the psychological mental and physical health of gardeners through sensory experiences, especially for children (Hussein, 2012). This is why on the site of Balma (which is part of a priority district of the city of Toulouse), sensory gardens have been set up for children with special needs (for example, touch therapy), and also for people accompanied by a therapist who have problems related to the colors of food. The garden, like other environments, has indeed generated “resonant atmospheres,” as it’s loaded with various artifacts (Laplantine, 2018; Breviglieri et al., 2021). Different sensory elements that make up the garden atmosphere can be noticed. Some sounds in the garden are identifiable: the hammering of a gardener tinkering with a fence, the movement of a weather vane scaring away birds, the discussions of gardeners.... The gardeners don’t just come here to cultivate, but also to connect with the human and non-human world. Indeed, the interaction that the gardener maintains with his garden is an experience charged with sensations, emotions and reflections.

3.1.1. The sense of smell in tune with the problems of the quality of the environment

Questioning the quality of the environment, the sensory device draws on other experiences of the past (lived) to build new doubts and open new investigations. For example, the quality of water is often questioned in gardens. According to Cefai (2016) when citizens have had the affective and sensitive or evaluative experience of the troubles, they begin to investigate in order to elucidate and clarify a situation. Even if we are in forms of questioning, this does not block the dynamics. These questions relating to the quality of the environment contribute to the development of healthier practices.

This excerpt below outlines the response of Anna, a gardener of Caribbean origin who has experienced chlordecone (a toxic and persistent pesticide in soils), when we asked her if she thinks her soil is healthy and whether she has confidence in the quality of the garden watering water: “The person who had that plot before, I don’t know exactly what she put in the ground, we don’t know because that we don’t see. For example, chlordecone takes years to disappear” (Anna). Chateauraynaud and Debaz (2017) qualify vigilance as a “form of presence in the world” mobilizing the senses, inducing situations of grip on situations. This vigilance in the garden in relation to the quality of the environment is based on the sensitive visual and olfactory capacities to question the quality of the irrigation water. Cefai (2016) shows that ordinary people are able to develop capacities for action, whether to set up initiatives, experiments, conduct surveys....

The garden is a space for experimentation, to investigate and elucidate doubts related to the quality of the environment: soil quality, presence of fine particles in the air or pesticides in the water? When curiosity gives rise to doubt and suspicion in the garden, precautionary measures apply in order to regain control, to act with the intention of reducing perceived risks or to obtain answers to understand: (1) the quality of the environment, with questions asked to the authorities; (2) solicitation of scientists by the gardeners themselves in order to face their doubts and research solutions, responses... Even if the problem of tangibility linked to possible pollution in the garden can generate a problem, from perception and representation point of view, the sensitive tries to assess the environmental quality and sometimes to generate certain vigilance

techniques as a form of precaution. This is how Anna pays attention to her doubts.

“The water when it arrives, there is a smell of Sulphur. I asked myself the question, what do they put in the water [...]. Before watering my edible plants, I start by watering the white rosebush that is there. I let the water run as long as I smell sulfur and only then do I water my plants. Sulfur in itself is not a bad thing, since it is a medicine, but I wondered why there is this smell in the water. So, I put in the rosebush and if one day it dies, it will confirm the problem. This is my own experience.” (Anna)

Hypersensitivity is mobilized as the ability to detect possible chemical inputs in the garden. It is built on the basis of other sensory experiences in the world—these are also sensory operations in tune with the detection of the use of chemicals in the garden or of waste, external pollution that can be discharged there.

Gardener: “as soon as the guy uses this product, I smell a smell, you can recognize the product when the wind blows, even under the leaves here, you can see that the leaves are shining and it’s not the natural resin of the leaf, we know it’s the wind that brings it.” (Raphael)

W.J: do you recognize the smell of the product?

Raphael: “yes, yes”

W.J: isn’t everyone smelling the product and asking questions?

Raphaël: “No, not everyone, people are no longer used to smelling. Fertilizer or soil smells, especially in the heat or rain. I tell people that and they laugh. I have the memory when I am in Guadeloupe, in Marie-Galante or Sainte-Marie, on the shore you have the spray, you smell the salty air. But, when you get closer to the earth, you smell a completely different smell. People don’t realize, you really have to experience it, pay attention and take the time. When I go to the Lot region, when you get to the plum field you can smell it, whereas in the hazelnut field the smell given off is completely different.”

The sense of smell benefits from a form of legitimacy as a control device, when it participates in the process of investigation concerning the use of products and chemical substances in gardens. A site manager told us: “There are products that smell. If I smell an unusual smell, I tell myself maybe a chemical product and I will go and see and ask for accounts to find out, to understand” (Raymond).

3.1.2. Taste into the garden

The tasting as a sensory experience appears in the garden, when we try to validate hypotheses and do our own tests, for example, the gardener who gives a taste of a fruit (cherry, tomato or raspberry) from his garden. This sensory experience also carries emotions taking the gardener on a tangible and material experience of the nature. Taste is often restored by gardeners when they explain the history of their complete experiences of the garden. They can be grasped through anecdotes collected during interviews, as illustrated below:

W.J: What motivated you to have a garden?

Mrs. Bompard: “When I made fries, my sons said: they are not good. I was doing the right steps with the oils, the cooking,

etc. They said: at grandma's, they are better. In fact, it does not come from the way of cooking them, it comes from the potato variety. When I buy potatoes in supermarkets, they have been overwatered and are full of water. In the garden, I don't water the potatoes and they are firmer, which is great for cooking. That's why we had a garden."

Mr. Bompard: "I have a garden because I want to eat vegetables that have high taste, another particular flavor. The difference is huge, when you compare tomatoes from your garden or those from the store, it has nothing to do. For beans, it's the same, you eat beans from your garden, you pick them up and two hours later you cook them: it has nothing to do with beans that have crossed the Atlantic and have no taste."

The taste is a proven experience. Tomato-savvy gardeners say never overwater them. According to them, an over-watered tomato does not taste at all. André, who knows a lot about tomatoes, explains to us about his plot and takes a tomato that he hasn't watered too much to let us have this taste experiment and he offers us a tomato, saying: "My tomatoes have had only three watering, it's firm when you eat it." This experience of having a meal in the garden can be grasped especially during validation tests through sensational contact.

3.1.3. The garden is a generator of emotions, sensations and feelings

Gardening provides satisfaction and this experience is returned by the gardeners through an inner state expressed during interviews and exchanges. The satisfaction linked to a successful harvest is an accomplished experience in the sense of Dewey (1934), directly perceived as positive emotion, without going through an intellectual analysis. This observation agrees with the research results of Robert-Boeuf (2018) who concludes that gardening is a practice strongly promoting the emotions. A gardener tells us with a big smile that she is often satisfied by the positive feedback she receives about her garden. "Satisfaction is when people pass by, and say to me: Oh, how beautiful this garden is, you see [laughs]" (Jade).

The garden is an activity that returns feedback from oneself (self-esteem) (Weber, 1998), in relation to what one is capable of doing and succeeding on one's own. This activity helps to build better self-esteem, especially when you are in doubt about your own skills, a gardener told us: "The garden is also a pleasure to see it grow and to harvest what you have planted, it's a huge satisfaction... If we had doubts about our skills, then we see that we are not bad and that we can succeed in projects" (Louise).

It is a tool of benevolence according to the inner feeling that it provokes. Alice feels content with the beauty of her garden which can produce positive emotions in other people.

"Me, when there are men who come to my garden, as they have generally no flowers in their gardens, when they arrive in my garden, they say: your garden is a delight, it's paradise here. Well, that makes me very happy. I tell myself that my garden touched someone's soul and that's important... There was this vibration that the person felt, which is really important to me." (Alice)

The garden is also a space of autonomy and outlets for food production on an individual scale. These holds are fabricated both in concrete practical experience and also through the perception that

is fabricated on one's own small personal productions. "What is also good when you garden is that you are happy to see what you can produce with your own hands. We see these beautiful vegetables that we have managed to produce" (Jules).

Achieving even small things in the garden generates a feeling of pride and it is also a good way to be confident. Anna shows us the bean experiment that she managed to produce from seeds collected from a neighbor (Photo-1).

3.1.4. A looking experience

Look, observe, see, these are all the verbs that illustrate our exchanges with gardeners, when they recount their experience of the garden. Watching or observing the elements of the garden is an experience of interaction between the gardener and his garden. According to Dewey (1934), experience is indeed the interaction between life forms and their environment. These experiences generate satisfaction. A compilation of verbatim excerpts based on interviews with Dupont, a former landscaper passionate about the aesthetic aspect of the garden, is presented just after:

"When I go to the garden, it's to keep myself busy, I have lots of things to do. But I also like to sit down, look at the pool with the water flowing, be calm." (Dupont)

"I like to keep a little space for plants that are pretty to look at and things that are pleasing to the eyes." (Dupont)

"I put everything askew, on the bias, because it's prettier to the eye." (Dupont)

Louise receives us in a small living room set up in her garden around a sofa, a few chairs and a small table. You need this installation to properly observe your garden, she tells us: "When you are in a garden, you observe things" (Louise).

Others grow certain vegetables for their beautiful colors. Anna grows beans for their color, showing us her beans, she explains (Photo-1): "It's the color I like to see. Dried it becomes another color, when it's already dry, it's not a red like that, it's a little purple." The arrangement and marriage between various living organisms (plants, flowers and insects) is also an aesthetic experience. Maurice, gardener for 3 months on the site of the allotments in Balma, tells us about his passion for the marriage of plants and flowers, the role it plays in the interaction with insects, not only for biodiversity and niches ecological, but also for the aesthetic aspects, a satisfaction felt by looking at the living landscapes. "Having flowers next to the vegetables means that the insects come to pollinate the zucchini. Melons also need to be pollinated, since there are male flowers on one side and female flowers on the other. The marriage must take place. I like to see its dynamics, it maintains life. In addition, there is a form of aesthetics that is important to me: flowers and colors speak to me" (Maurice).

As observed by Riboulot-Chetrit (2016), the gardeners develop a multidimensional relationship with their gardens in which nature, order and aesthetics play crucial functions.

3.2. The garden, an aesthetic experience

The art of cultivating your garden is an aesthetic experience. The work of the garden is carried out in the activity of the

touch, the manual and the do-it-yourself. It's an experience that engages the body in its physical, sensual, sentimental, sensational and sensitive dimensions. According to Dewey (1934, p. 65) "art is the living and concrete proof that man is capable of restoring consciously, and therefore on the level of meaning, the union of the senses, of the need, of the impulse and action that characterizes the living being." In the experience of the garden there is this double dimension: aesthetic and artistic. The first refers to a production process which refers to the way gardeners prepare the soil, sow and take cuttings. The second consists of the perceptual dimension of the pleasure that the activity of the garden provides. The gardener finds himself in a double position: producer of vegetables and receiver (consumer). Production is considered here as all the elements (emotions and feelings) through which the garden is created. Reception is all the feedback (compliments, positive remarks) that the gardener receives for his garden or an activity in his garden.

The aestheticism of which he is the object here is the way in which the gardener creates his garden to send an expressive image to the outside and which is also capable of being perceived. And the artistic experience in the context of this research is entirely based on the sensitive relationship that gardeners have with the elements of the garden. Actually, for Dewey, when we manipulate, we touch and caress; when we look, we see; when we listen, we hear (Dewey, *Ibid*, p. 103). The love with which one works and takes care of his garden restores the activity of the garden in the artistic sphere. The photography 2, taken on an allotment garden site in Chantelle shows a gardener rehabilitating a corner of her garden. She explains that she enjoys it and detoxifies her garden. She does archeology in a river bed (Chloé). The gentleness and patience with which she carries out this mission illustrate the artistic dimension of her project.

Immersion in this experience redefines the relationship to time. Many gardeners testify that they do not see the time passing in the garden, they live to the rhythm imposed by the garden. It is a redefinition of the relationship to time: let time take its course, follow its rhythm, its cadence and not be in the efficiency or in the queue of time.

"It's a new parameter in my daily life, it taught me to slow down. I realized that I wanted to do too many things. Nature imposes another rhythm, so it allowed me to let go of things in the maintenance of the garden that I couldn't do everything... It allowed me to slow down on a daily basis not to want to do too much." (Chloe)

That special relation with time in function of the context was previously explored by several authors (Diestchy, 2015; Godillon et al., 2015; Grosbellet, 2015). According to Hartmut (2012) modern life is a constant acceleration that engenders severe forms of alienation relating to time and space, to things and actions, to oneself and to others. Under the pressure of an ever-increasing rhythm, individuals now face the world without being able to inhabit it and without managing to appropriate it.

The garden is also sometimes perceived as a work of art that bears the mark of creation. Some gardeners feel proud because they feel like creating their gardens. This is the case, of a gardener who explains the course of her garden: before her arrival and the current state in which it is, how she transformed it: This garden, I created it (Jade).

This creation goes as far as planning. We are in the order of conception toward materialization. This planter, plans everything through an organized plan (Photography 3).

You draw your garden, you don't put anything in it and not anywhere! (Louise).

The aesthetic experience of the garden is populated with elements of ordinary life. Louise's drawings (Photography 4), illustrate forms of sensibilities of ordinary life. The aesthetic experiences of the garden are often forms of hybrids, made up of materials from other experiences in the world. For example, Louise brings pebbles back to her garden from a beach in the Var where there was the landing of August 15, 1944 (Photography 5): "Except for the little characters, everything you see there comes from the landing beach on August 15 there 44, in the Var" (Louise).

Living and non-living are sometimes associated to build an aesthetic space, like Dupont who likes to observe and create atmospheres in his garden. Photography 6 below illustrates how this gardener introduced a small decorative turtle into his pond.

A taste for the beautiful, the pretty, the decorative, the expressive, are all intertwined motivations that organize the garden. As illustrated just after, Jade likes to have decorative animals that she places next to living plants coexist (photography 7). According to her, there is not only the food function in the garden: The garden should not be just for me, and not only to cultivate, to eat. A garden is also a very decorative landscape for all (Jade).

Antoine Hennion, in an article on taste takes the example of music lovers, to leave a sociology of taste of a critical conception that has become hegemonic, to enter preferably, by the modes of circulation, passing by each mediation, look at each device, see each situation act, and follow the way in which pieces, languages, but also bodies, collectives, objects, writings, ways of appreciating and ways of listening circulate, producing both sets of works or qualified and commented musical styles, and audiences ready to welcome them (Hennion, 2004, p. 4). To grasp the modalities of taste deployed in each form of garden aesthetics, we must avoid generalizations and try to understand the meaning of association of aesthetic objects: where do they come from? Why were they put in the garden? How do they arouse emotions? This pragmatics of taste does not establish any predefined aesthetic criteria, and leaves the contact with the garden the capacity to build the operations of attachments. These ways of beautifying the garden are varied forms of attachment as proposed by Hennion. We observe during our field surveys that this interest in aesthetics allows gardeners to enhance the attractiveness, freedom and creativity of the garden. According to Clatworthy et al. (2013), gardens are spaces for people to relax, to focus, and to connect with nature and each other. Focusing your attention on the immediate tasks and details of gardening can reduce negative thoughts and feelings. Just spending time around plants eases stress for many people.

3.3. Sensitive interactions with the garden

3.3.1. Attention to human and non-human world

The attention as a capacity emerged in the experience in the gardens, joins the notion of vigilance developed by

Chateauraynaud and Debaz (2017) as a state of wakefulness mobilizing the senses to be in full consciousness. Attention in the garden is one experience among others—we are in an attentive interaction with our garden and the elements that compose it. We follow its evolution—as well as the smallest details and variabilities that operate there—we are in perceptibility as a process of vigilance. Léa, a gardener on the Balma site, showed us a 1.50 m row of strawberries that she had planted 3 years ago, saying to us: “Here are the strawberries, nothing came of it, there are a lot of leaves, it’s normal, this year I didn’t take good care of it, it doesn’t matter so here it is [...] either I walk past it too often.” We said to him: do you think that passing in front of this can have an impact on the growth of strawberries? she replies: “Listen, from the moment you pass, you settle the ground, there are still waves that are transmitted, I don’t know, [...] I’m going to move them next year.”

We are paying attention to the elements of the garden, because we are in suffering and compassing it. This same gardener shows us her squares of vegetables and explains two experiments carried out on her tomatoes: 1-dig deep into the earth to plant or 2-dig less deeply. The difference in harvest is very significant, she tells us. She harvested much more tomato in case she dug deeper. She looked at her tomatoes whose roots did not go deep with a very compassionate air, saying “they are suffering, the poor” (Léa). Léa is convinced that the interactions between humans and plants are organic and reciprocal relationships, which influence both humans and plants. This representation of the field, this empirical belief is a way of questioning the interactions between human and nature and the concept of one health: “I am even convinced that plants are indicative of diseases that some people may have. A healthy-looking person who takes care of her plants, I think that if she has a disease that she is not aware of and continues to garden, the plants do not react the same way” (Léa).

Planting, growing, are experiences of feeling and self-confidence. These reflective experiences allow you to take a step back from your priorities and your environment. The sensitive dimension is not disconnected from the cognitive one. Some sensitive interactions with the garden go through the beliefs that one has of one’s own capacities, what the Canadian psychologist Albert Bandura calls the sense of self-efficacy, which is often studied in purely socio-cognitive activities (Bouffard, 1988), often in relation to learning (Galand and Vanlede, 2004). Morin et al. (2019) through a publication resulting from research on the ability of young people to deal with social and environmental issues, preferably offer the feeling of power to act as a lever for action.

Through this extract, Léa details her experiences of sowing and cuttings, experienced as deep feelings. “I think there is energy that passes between us and the plants. With the seedlings I have no confidence in myself, because the last time I did not get good results. I leave with apprehension when I have the seeds in hand. On the other hand, when I make cuttings or layering it works, I feel it better and I have good confidence. I am therefore not at all in the same state of mind depending on what I do in the garden” (Léa). Léa is always in the details and very attentive to all the elements of the garden. She scratches the ground of the central path of her garden and says to me “I put BRF to prevent it from drying out and the year if I want to work here it will be much easier, it is attenuated. I go there all the time, to avoid compacting the soil too much, especially next to the plants” (Léa). She manages to show that a difference in color of vegetables can play a role in the

vulnerability of plants to threats from harmful insects (Photography 8). She observed that purple potatoes are less attacked by slugs than green ones.

In her garden, Anna sees small gourds springing up. She changes her trajectory so as not to pass in front, and says “I am not passing there, there is a legend that says in our house: pou li pa koule (so that it does not fall)” (Anna). In the West Indies, according to certain beliefs, the fruit that comes out can be damaged or dropped if you pass nearby. This example illustrates how the garden can constitute an area of interaction between beliefs, experiences, experiences of the past, and current experiences. Anna in her garden tells us about her squash branches that were running everywhere and that she will have to correct without touching them, just with a stick. We asked her how she knew and discovered that, she answers us: “I live with them in a way, I do my experience” (Anna). By showing us around her plants, each time she notices that a plant is weak, she says: “that one is not at ease” or “the soil is not rich” (Anna). This attention in the garden is therefore also in the management of vulnerabilities, particular attention to the development of the weakest. The creative dimension always comes in support to anticipate vulnerabilities. For instance, Louis grows his seedlings in a bottle to protect them from external aggressions (photography 9).

This attention to the world is distributed over small things: the living and its functioning. This sometimes gives rise to fascinating exchanges and discussions between the gardeners: Joseph, a very experienced gardener who is always in the explanation, takes a tomato and gives it to his neighbor who visits him (Photography 10), saying “this tomato there, the birds have eaten it a little” and her neighbor replies “ah birds, are you sure about that? Joseph then replies: “It’s the birds, look at the beaks. When it’s a rat he eats, it like that (by making vertical gestures), there beaks everywhere, that’s for sure birds.”

The garden in the commitment to biodiversity is at a meso level. This commitment to biodiversity in the garden goes through the attention paid to its practices. The garden, even a small one, can therefore be part of a more global process of change. Since we pay attention to its practices and their potential consequences on ecosystems and biodiversity in general. This excerpt shows how this gardener is concerned about the chain of lives in general, since it goes up in generality, referring to fauna and flora.

“When I have to treat my slugs, I don’t take chemical slug killers. You should know that it also kills snails, good for the soil, unlike the slug, it is not the same job they do. Snails are food for useful hedgehogs in the garden. So, if we kill wildlife with these chemicals, we create a break in the food chain.” (Raphaël)

Maurice another gardener explains that he is concerned about his practices: “We go and get manure. I try to bring fertilizers which a priori are natural and recommended. In fact, I try to contribute to life in the gardens” (Maurice).

However, the presence in the garden can also accentuate the feeling of sadness, of loss of one’s spouse (who will no longer come to the garden) or of anger at the theft of vegetables and tools, or the deterioration of the shed. This has been analyzed by Robert-Boeuf (2019) in the case of collective gardens in Île-de-France and the Kazan region. According to the author, at the local level, if the gardens are primarily domestic spaces, of the order of the intimate, they also refer to the construction of a community based on agricultural work and strong neighborly relations. These communities are structured

around games of complex normalizations not without tensions between different generations of gardeners.

3.3.2. The role of small tricks and creativity in organic control in the garden

The gardener is often in a reflexivity that is both individual (the gardener who asks questions about his practices) and collective (feedbacks between gardeners on what works or not) to find solutions to a problem faced in the garden. The latter constitutes a complete field of experience, in the sense of Cefai (2016), since it involves the gardener in the process of investigating troubling situations in the gardens and brings out innovative solutions in terms of bio-control.

There are many tips considered alternatives to chemical treatments in the garden. With the Labbé law since 2017, the use of chemical pesticides is prohibited in “JEVI” (gardens, green spaces and infrastructures) in France. Gardeners therefore prepare compounds based on natural elements to protect their crops and use other devices: ladybugs that eat harmful insects, poisons in the water to devour mosquito larvae. An old CD, an empty bottle, a scarecrow, empty jars hanging in the garden to scare birds away, etc. Louis explains to us how the eggshells he has displayed in his garden scare away butterflies to avoid laying eggs on tomatoes. “We can already see white butterflies spinning over there, they think that the eggshells there are an enemy who laid them here and they are not going to come here suddenly” (Louis).

Jules explains plant by plant: “those are marigolds, they’re for chasing insects,” we see another small discreet plant next to the roses, he explains to us: “those are flax that we plant potatoes and eggplants next to them to avoid Colorado potato beetles.” This gardener sets traps with a plank to catch the slugs in his garden that eat his plants and then kill them with salt afterwards, because salt has the power to attack their bodies by destabilizing them: “That’s why I put these boards, the slugs slide on them. I collect them, then I put them in a bag with salt, I buy coarse salt. I can thus eliminate slugs with a natural product” (Raphaël).

This crop protection through agroecological practices (biocontrol, natural preparations...) promotes creativity and exchanges between gardeners. Some techniques are often the result of the intuition of the calculation space (Bessy and Chateauraynaud, 1995) of the gardener who is able to test techniques without referring to established expert techniques. To then be restored and shared collectively as knowledge by way of feedback in small communities of gardeners: what works, what does not work well, how in detail to implement the agroecological practice... A gardener wears on his head a crown made from leaves from his garden to naturally protect himself from insect bites: “I’ve been bitten before, but since I put it on, they don’t bite me anymore” (Joseph). An anti-mole stake has also been installed in a garden. This marketed device keeps moles away by sending a sound vibration into the ground that scares them away. Some gardeners refer to this device as biological control. Mohamed, who installed it in his garden, changes its place from time to time to distribute the protective effect widely in the space. The garden, through its sensitive and situated experiential elements, can therefore embark on the dynamics of broader discussions around the prospective reflections of UA as a vector of ecological transitions. These experiences can indeed awaken ecological awareness through new relationships

with the environment and new transactions between cities and rural areas.

3.3.3. The experience of the garden passes through “artifact”

Beyond the aesthetic approach of Dewey and the sensations of nature previously mobilized, other sections of anthropization experiences configure and decorate the landscape of urban collective gardens (Photography 11): artifacts, objects serving as mediation between the gardener and his garden. We frequently find recycled various vestiges of the consumer society, in the garden, serving various new uses: decoration, protection of plants... The interaction of the gardener with his garden therefore passes through all these objects with revisited uses: little tricks, creativity small ordinary works that question waste and pollution.

These elements found in the gardens illustrate the concrete links with the outside of the site, the garden bubble is suspended, but remains connected, in cohabitation with the world and all these artifacts: its waste, objects and symbols.

3.3.4. An ontological experience

Some gardeners humanize their relationship to the garden. For example, a gardener compares her plants to children who need to be taken care of. She explains that it’s important to talk to plants—we asked her if she thinks plants hear her; she replies: “it’s like a little one who can’t talk. Just touch...” (Anna).

She explains that you have to pamper your plants to protect them from diseases.

“When I say that I pamper them: I pass by, I look at the leaves. I think it’s like a human being, I pass, I watch, I talk and then I cut a little. Later on, you will have to take the chisel because I see this sheet a little damaged and I will remove it. It’s at the bottom, so it will allow the sap to rise. It’s a good idea to detoxify the plant and give it energy.” (Anna)

The interaction between gardeners and their gardens generally takes place in an atmosphere of respect. Rose, tells us about her ritual: “When I arrive in the garden, I talk to my plants, I say hello my beauties” (Rose). Other gardener thinks that the bees recognize her voice: “Bees are a bit like a dog; you have to respect a dog. I think the bees know my voice because when I go there, I talk to them and they are peaceful” and “for me a plant or a bee is alive, so I talk to them out of respect” (Alice).

This respect for the living is part of the ontological relationships dealt with in the works of Callon and Rip (1992) or Larrère (2010), under the prism of the interdependencies between humans and non-humans. This respect for nature is described by Descola (2013) in his work on animism: humans, animals, plants or rivers internally share a common existence. In his work “Beyond nature and culture” Descola (2013), in the chapter entitled: “Relationship to oneself, relationship to the other, modes of identification and modes of relationship,” delivers elements of apprehension on the relationship between nature and society. He describes two structuring elements of the experience (individual or collective): (1) identification, as “the ability to apprehend and distribute the (dis)continuities offered to our hold by the observation and practice of our environment”

(p. 210); and (2) relation, as being links established between these identification elements. The perception of these links between beings and things is of an experiential order; actually, in the ordinary and sensitive experience with the objects, that the work of identification, distinction and ultimately the relationship will be born.

For institutional organizations, gardens are means of action and framework (Duchemin et al., 2010; Nahmias and Le Caro, 2012; D'Andrea and Tozzi, 2014; Frauenfelder et al., 2014); they are also place of freedom and experimentation, for users. Den Hartigh (2013, p. 16) in her article concerning "urban collective gardens: levers toward the transition?" declares that the activity of a shared garden and its development is a form of taking back control of one's place of life. The garden is a place of quest for affirmation of social status and self-esteem and also, a place of identity construction. According to Cérézuelle (2003), local authorities must promote the autonomy of the gardeners, and gardens, in particular family gardens, are places of consultation, learning about autonomy and civility. For Baudry et al. (2014), the garden must be taken as a movement, which gives rise to an opportunity for creativity and the involvement of inhabitants in the socio-spatial construction of their environment. Cumbers et al. (2018) concluded that the garden is a place to cultivate vegetables and also to participate in the quest to assert social status and self-esteem, and to build personal identity. Scheromm (2015) states that each gardener cultivates its garden according to its own preferences, aspirations, in relation to its belonging to a socio-cultural class. For Giacchè and Le Caro (2018), gardening is a quest for autonomy, from producing your own seed to reusing waste to make your own fertilizer and thus gaining autonomy. Gardening as a social activity is a form of appropriation of public space by the stakeholders, to beautify the city, the neighborhood or to restore meaning (Bally, 2017). According to Centemeri (2019), through permaculture, we can inhabit the spaces of daily life differently and in particular revitalize cultivated land and urban spaces. These ways of remediation are opening opportunities to build new perspectives (Chateauraynaud and Debaz, 2017). We are well within the field of possibilities, the ability to modify our environment according to our needs, desires and aspirations, instead of undergoing global changes: pollution, crises, global warming....

3.3.5. The garden: Between perceptions, attachments, affections, emotions and feelings

The garden is an affective, emotional, perceptible, sentimental, and attachment object. Discussions with flower-loving gardeners show that the aesthetic function is not a priority. Some attach importance to the ecological roles they play in the ecosystem: increasing biodiversity, pollination service for vegetables and food for bees, etc. The urban garden is seen as a return or reconnection to nature (Sheromm et al., 2014). Dupont, a gardener who lives in an apartment, can get some fresh air in the garden, build a feeling of closeness to nature, of reconnecting with the living, to rebalance his urban and mineral life. He explains: "It allows me to feel close to nature, to escape the walls, while I live in the city" (Dupont).

The garden is a support for cultivating one's memories and maintaining one's ties, because for Dewey (1934, p. 62) it is not a question of identifying something present in terms of a past that would be completely cut off from it. The past is

transported into the present to broaden and deepen the content of the latter.

Fatima, gardener on the Chantelle site, explains us that coming to her garden permit her to think of her mother, since she thinks of her cooking, her ways of preparing dishes. Fatima uses her garden to educate her children about food and ecology and above all to keep a link with her emotional past with her mother.

Through the affective and emotional states, it arouses, the garden can create bridges and inspire alternatives in environments. Fatima explains to us that her son, who used to frequent her garden, drew a pumpkin at school and that from there, the teacher had the idea of applying for an educational garden to the town hall.

"He draws very well. He drew the pumpkin and suddenly, the director had the idea of asking the town hall to welcome the garden to teach nature to schoolchildren, because many parents participate in the gardens." (Fatima)

The garden also makes it possible to weave links between the affective experiences of the world. For example, visiting a gardener's plot, Jacob finds her flowers pretty and asks her for some for his wife. He then shares on a West Indian WhatsApp group the photo of the bouquet placed on the map of the Caribbean Sea. This photo thus connects the affects of the world by constructing a new hybrid representation (Photography 12).

The garden is therefore a favorable place to build ties based on types of relationships that we develop with other humans and non-humans. A cutting that we have transformed with our hands and which gradually becomes a tree, a plant that we have domesticated....

A gardener to whom we asked, if she could change her garden, does not agree because she became attached to her garden: "No I would not change... when you have a garden how do you want... I won't have a reason to move, I have to change places [laughs]. I planted my two peach trees, they were really tiny! I planted the vine, it was a cutting. All the fruits that I have here are cuttings that I made myself, the roses too. I'm automatically attached" (Alice).

Interactions with the garden generate irreducible experiences. These are created in the perception that we build from our sensitive interactions with the living world (plants, small animals, etc.) in the garden. The excerpts below, taken from an interview with a gardener, reveal the irreducible nature of the experiences and practices of the garden, which we always try to put into rational categories.

"I decided to water twice a week, and always on the same day. So even if it rains on Monday I water, because I've gotten the plant used to it and I don't want to disturb it. Regular watering, I think, keeps the plant from getting mildew and other diseases." (Louis)

Later, I asked him if the plant can forget, he answers and supports his arguments: "In my opinion, maybe I'm a little crazy to say that, but a plant that is used to being watered every Monday, Saturday, if she does not have the water provided, she will feel that she is thirsty despite the rain because she is used to having this water on Mondays" (Louis).

Some agroecological practices are instituted from forms of emotional and affective engagement in the garden. Raymond,

an allotment garden site manager, made the connection between the death of his father, linked according to him to exposure to pesticides, and his anti-pesticide commitment today in the garden.

“I avoid using treatment products that are harmful, my father to make a connection was a farmer and suddenly he died of emphysema. It is an occupational disease, because it is by dint of using toxic products that have degraded his health. It is better to use as few chemicals as possible.” (Raymond)

4. Conclusions and perspectives

Thanks to the research work carried out in immersion in urban collective gardens in Occitanie, with a pragmatic sociology approach, we obtained insights into the making of sensory experiences and their consequences on the state of mind, the relationship to nature and the practices of gardeners. By paying attention to plants and other living organisms in gardens, states of vigilance (Chateauraynaud and Debaz, 2017) created by the engagement of the senses and the freedom to test or manufacture and carry out projects, gardeners can voluntarily engage in actions that have meaning for them and thus reduce the tensions of their everyday life.

The strong interaction with the garden is an immersion in the sensitive world of Robert-Boeuf (2018), graspable both in concrete practices and in the emotions expressed. These sensitive experiences, through the creative capacities they engender, can bring gardeners into contact with several situations: the evaluation of the quality of the environment, food quality, problems related to harmful insects.

Taking and releasing as a capacity for action (Chateauraynaud and Debaz, 2017) in gardens are sometimes the consequences of inner feelings (sense of efficiency, situation of trust, perceived control) and the creative capacities developed from small things and ordinary problems... The success in solving the problems encountered in the garden contributes to the empowerment of gardeners, who often present in their life course: ruptures, professional difficulties, exiles far from the family and the country of origin... These accidents of life often encourage gardeners to adopt practices that are more respectful of life. For example, in the case of biological control where the gardener composes his own natural preparations to fight against plant diseases or tinkers with his own device against harmful attacks.

The aesthetics observed in gardens stems from the democratization of artistic work according to Dewey (1934): the gardener creates his garden like a painter who paints his picture and sends a message to observers. The garden is populated by aesthetic experiences, illustrated sometimes in the words collected. The value of this experience is also measured through the feeling of well-being it provides. It serves as a springboard for rebuilding when one is sometimes broken by the problems of the world—and avoids criticism as the only option to release frustrations. Aesthetics allows gardeners to go back and forth between experiences and desires, and to create without constraints—it can participate in liberating action through the process of creativity that it engages, and thus produces a process of valorization of gardeners. This aesthetic experience captured in the interaction with the garden

can mobilize mediating objects that populate the landscape of the garden.

Ordinary and sensitive interactions with the garden are based on attention to things, to beings, prioritizing the sensitive, affective, emotional aspect of the world as fundamental properties of the relationships between beings and their environments. These constructive interactions allow the enhancement of life in its various forms. It is through these sensitive links that the gardener becomes strongly attached to his garden. He shapes it and transforms it into a space for alternatives that promote changes in the relationship with nature and food, like a gardener who explains that its garden makes him to ask questions about eating well and what does it do to the planet.

Through the elements of surveys on the sensitive, this research work opens up avenues for a sociology of ecological transitions by prioritizing not only the activities of the gardeners, but also the experiences that support them. Because the sensory explored in the interaction with the gardens is an original experience, not very standardized, both in action and reflexivity. In perspective, these experiences in the gardens could be explored in more detail to see how they can contribute on another scale, to greening urban agricultural practices in neighborhoods and through urban farms with a greater food vocation.

Data availability statement

The datasets presented in this study can be found in online repositories. The names of the repository/repositories and accession number(s) can be found in the article/Supplementary material.

Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. The patients/participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships

that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fsufs.2022.915097/full#supplementary-material>

References

- Albert, F. (2019). Jardiner ensemble dans la ville, une question de préservation: étude anthropologique de jardins collectifs urbains. *Sociologie*. COMUE Université Côte d'Azur (2015–2019), fftet-02468338f.
- ANRU (2020). Available online at: <https://www.anru.fr/developper-lagriculture-urbaine-dans-les-quartiers> (accessed January, 2023).
- Bally, F. (2017). "Habiter l'espace urbain: les jardins collectifs comme moteur d'un autre mode de vie?" in *Modes d'habiter et Sensibilités Environnementales Emergentes: Quels Enjeux Pour la Qualité de Vie?* ArPenv, Rennes, France, fhal-01588555.
- Batalla, M. (2007). *Poèmes Paysages Maintenant*. Place.
- Baudelet-Stelmacher, L. (2018). Les 20 printemps des jardins partagés français. Bilan et perspectives. *In Situ* 37. doi: 10.4000/insitu.19725
- Baudry, S., Scapino, J., and Rémy, E. (2014). L'espace public à l'épreuve des jardins collectifs à New-York et Paris. *Géocarrefour* 89, 41–51. doi: 10.4000/geocarrefour.9388
- Bessy, C., and Chateauraynaud, F. (1995). *Experts et Faussaires. Pour une Sociologie de la Perception*, 2nd ed. Paris: Pétra, coll. "Pragmatismes", 522.
- Bouffard, T. (1988). Sentiment d'auto-efficacité et exercice des processus d'autorégulation chez des étudiants de niveau collégial. *Int. J. Psychol.* 23, 409–431. doi: 10.1080/00207598808247776
- Breviglieri, M., Gamal, S. N., and Goeury, D. (dir.) (2021). *Résonances Oasiennes. Approches Sensibles de l'urbain au SAHARA*. Geneva: Metispresses, 336. doi: 10.37866/0563-82-1
- Bulle, S. (2020). *Irréductibles: Essai sur des Milieux de vie de Bure à Notre-Dame-des-Landes*. Grenoble: UGA, coll. "Ecotopiques". doi: 10.4000/books.ugaeditions.25812
- Calandra, M. (2017). *Jardins de Terre, Jardins de mer à Tongoa (Vanuatu)*. Une Anthropologie de la Nature Domestique Dans un Milieu Affecté par la Catastrophe [Thèse de doctorat en anthropologie sociale et ethnologie]. Paris: Université de Paris, EHESS.
- Callon, M., and Rip, A. (1992). "Humains, non-humains: morale d'une coexistence," in *La Terre Outragée*, eds J. Theys, and B. Kalaora (Paris: Autrement), 140–156.
- Cefai, D. (2010). *L'engagement Ethnographique*. Paris: de l'EHESS. doi: 10.4000/books.editionsehess.47334
- Cefai, D. (2016). Publics, problèmes publics, arènes publiques. *Questions Commun.* 30, 25–64. doi: 10.4000/questionsdecommunication.10704
- Centemeri, L. (2019). *La Permaculture ou l'art de Réhabiter*. Versailles: Quae, 152.
- Cérézuelle, D. (2003). Les jardins familiaux, lieux d'initiation à la civilité. *Communications* 74, 65–83. doi: 10.3406/comm.2003.2129
- Chateauraynaud, F., and Debaz, J. (2017). *Aux Bords de l'Irréversible. Sociologie Pragmatique des Transformations*. Paris: Pétra, coll. "Pragmatismes", 646.
- Clatworthy, J., Hinds, J., and, M. Camic, P. (2013). Gardening as a mental health intervention: a review. *Ment. Health Rev. J.* 18, 214–225. doi: 10.1108/MHRJ-02-2013-0007
- Cumbers, A., Shaw, D., Crossan, J., and McMaster, R. (2018). The work of community gardens: reclaiming place for community in the city. *Work Employ. Soc.* 32, 133–149. doi: 10.1177/0950017017695042
- D'Andrea, N., and Tozzi, P. (2014). Jardins collectifs et écoquartiers bordelais: de l'espace cultivé à un habiter durable? *Noréis* 231, 61–74. doi: 10.4000/noréis.5087
- Demailly, K. E. (2014). Les jardins partagés franciliens, scènes de participation citoyenne? *EchoGéo* 27. doi: 10.4000/echogeo.13702
- Demeulenaere, E. (2013). Les semences entre critique et expérience: les ressorts pratiques d'une contestation paysanne. *Rev. d'Etudes Agric. Environ.* 94, 421–441. doi: 10.4074/S1966960713014033
- Den Hartigh, C. (2013). Jardins collectifs urbains: levier vers la transition? *Mouvements* 3, 13–20. doi: 10.3917/mouv.075.0013
- Descola, P. (2013). *Beyond Nature and Culture*. Chicago, IL: University of Chicago Press, 520. doi: 10.7208/chicago/9780226145006.001.0001
- Dewey, J. (1934). *Art as Experience*. New York, NY: Capricorn Books.
- Dewey, J. (1938). *Experience and Education*. New York, NY: Macmillan Company.
- Diestchy, M. (2015). Tensions et compromis dans les valeurs spatiales du slow. *Carnets Géogr.* 8. doi: 10.4000/cdg.291
- Dubost, F. (1997). *Les Jardins Ordinaires. Col. Logiques sociales*. Paris: L'Harmattan.
- Dubost, F. (2011). Les Français et leurs jardins. *Encyclopaedia Univers.* 13, 445–449.
- Dubost, F. (2018). Jardins collectifs: de l'abbé Lemire aux jardins d'insertion. Typologies – expériences – enjeux de conservation. *In Situ* 37. doi: 10.4000/insitu.19624
- Duchemin, E., Wegmuller, F., and Legault, A.-M. (2010). Agriculture urbaine: un outil multidimensionnel pour le développement des quartiers. *Vertigo* 10. doi: 10.4000/vertigo.10436
- Dumat, C., and Bories, O. (2021). *12 Repères Clés Pour (se) former à l'Agriculture Urbaine*. Dijon, DL: Educagri.
- Ecophyto (2022). *Le Point sur la Loi Labbé et l'Arrêté lieux à Usage Collectif*. Available online at: https://www.ecophyto-pro.fr/fiches/fiche/5/le_point_sur_la_loi_labbe/n:304 (accessed January, 2023).
- Frauenfelder, A., Delay, C., and Scalabrini, L. (2014). Potagers urbains vs jardins familiaux? Réforme urbaine et controverses autour du beau jardin et son usage légitime. *Espaces Soc.* 3, 67–81. doi: 10.3917/esp.158.0067
- Galand, B., and Vanlede, M. (2004). Le sentiment d'efficacité personnelle dans l'apprentissage et la formation: quel rôle joue-t-il? D'où vient-il? Comment intervenir? *Savoirs* 5, 91–116. doi: 10.3917/savo.hs01.0091
- Giacchè, G., and Le Caro, Y. (2018). Jardins partagés: une contribution habitante au système agri-alimentaire territorialisé rennais. *Vertigo* 31. doi: 10.4000/vertigo.21982
- Godillon, S., Lesteven, G., and Mallet, S. (2015). Réflexions autour de la lenteur. *Carnets Géogr.* 8. doi: 10.4000/cdg.281
- Grandschamp, L., and Glarton, S. (dir.) (2021). *Militantismes et Potagers*. Evanston, IL: Presses Universitaires du Septentrion, 320.
- Grosbellet, J. (2015). Maitriser les rythmes quotidiens: nouvelle revendication du droit à la ville? *Carnets Géogr.* 8. doi: 10.4000/cdg.295
- Guyon, F. (2008). "Les jardins familiaux aujourd'hui: des espaces socialement modulés," in *Espaces et Sociétés*, Vol. 3 (ERÈS), 131–147. doi: 10.3917/esp.134.0131
- Hartmut, R. (2012). *Aliénation et Accélération: Vers Une Théorie Critique de la Modernité Tardive* (Transl by T. Chaumont). Paris: La Découverte, Collection Théorie critique, 154.
- Hennion, A. (2004). Une sociologie des attachements: d'une sociologie de la culture à une pragmatique de l'amateur. *Sociétés* 85, 9–24. doi: 10.3917/soc.085.0009
- Hussein, H. (2012). The influence of sensory gardens on the behaviour of children with special educational needs. *Procedia Soc. Behav. Sci.* 38, 343–354. doi: 10.1016/j.sbspro.2012.03.356
- Laplantine, F. (2018). *Penser le Sensible*. Pocket, Collection Agora, 224.
- Larrère, C. (2010). Les éthiques environnementales. *Nat. Sci. Soc.* 18, 405–413. doi: 10.1051/nss/2011004
- Marc, J. V., and Martouzet, D. (2012). Les jardins créoles et ornementaux comme indicateurs socio-spatiaux: analyse du cas de Fort-de-France. *Vertigo* 14. doi: 10.4000/vertigo.12526
- Mead, G. H. (1929). "A pragmatic theory of truth," in *Selected Writings*, eds A. dans Reck, and G. H. Mead (Chicago, IL: The University of Chicago Press 1964), 320–344.
- Mead, G. H. (1938). *The Philosophy of the Act*. Chicago, IL: The University of Chicago Press.

- Morin, E., Therriault, G., and Bader, B. (2019). Le développement du pouvoir agir, l'agentivité et le sentiment d'efficacité personnelle des jeunes face aux problématiques sociales et environnementales: apports conceptuels pour un agir ensemble. *Éduc. Social.* 51. doi: 10.4000/edso.5821
- Nahmias, P., and Le Caro, Y. (2012). Pour une définition de l'agriculture urbaine: réciprocity fonctionnelle et diversité des formes spatiales. *Environ. Urbain* 6, 5. doi: 10.7202/1013709ar
- Riboulot-Chetrit, M. (2016). *Les Habitants et Leur Jardin: Relations au Vivant, PRATIQUES de Jardinage et Biodiversité au Cœur de l'agglomération Parisienne*. Thèse de doctorat en Géographie de l'Université Paris 1 Pantheon-Sorbonne, Paris.
- Robert-Boeuf, C. (2018). Analyser le jardin collectif urbain en géographie: une lecture du jardinage par les émotions. *Carnet Géogr.* 11. doi: 10.4000/cdg.1574
- Robert-Boeuf, C. (2019). *Les jardins collectifs: entre urbanisation de la campagne et agrarisation de la ville: mise en regard de l'Île-de-France et de Kazan*. Thèse de doctorat en Géographie humaine, économique et régionale de l'Université Paris Nanterre, Paris.
- Salomon-Cavin, J., and Granjou, C. (dir.) (2021). *Quand l'écologie s'urbanise*. Grenoble: UGA, Collection Écotopiques, 386. doi: 10.4000/books.ugaeditions.26524
- Scheromm, P. (2013). Les jardins collectifs, entre nature et agriculture. *Métropolitiques.eu, Métropolitiques*, fihal-02642338
- Scheromm, P. (2015). L'expérience agricole des citoyens dans les jardins collectifs urbains: le cas de Montpellier. *Dév. Durable Territoires* 6. doi: 10.4000/developpementdurable.10726
- Sheromm, P., Perrin, C., and Soulard, C. (2014). Cultiver en ville... Cultiver la ville? L'agriculture urbaine à Montpellier. *Espaces Soc.* 3, 49–66. doi: 10.3917/esp.158.0049
- Weber, F. (1998). *L'honneur des Jardiniers. Les Potagers Dans la France du XXe siècle*. Paris: Belin, coll. socio-histoires.
- Wegmuller, F., and Duchemin, E. (2010). Multifonctionnalité de l'agriculture urbaine à Montréal: étude des discours au sein du programme des jardins communautaires. *Vertigo* 10. doi: 10.4000/vertigo.10445
- Zask, J. (2016). *La démocratie aux Champs. Du jardin d'Eden aux Jardins Partagés, Comment L'agriculture Cultive les Valeurs Démocratiques*. Paris: La découverte, coll. Les empêcheurs de penser en rond.
- Zeitler, A., and Barbier, J. M. (2012). La notion d'expérience, entre langage savant et langage ordinaire. *Rech. Form.* 70, 107–118. doi: 10.4000/rechercheformation.1885