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Putting a green mark on the asphalt. Communication and urban agroecology practices in Colombia: exploring Bogota

Poner una marca verde en el asfalto. Comunicación y prácticas de agroecología urbana en Colombia: una mirada a Bogotá Colocando uma marca verde no asfalto. Comunicação e práticas de agroecologia urbana na Colômbia: uma olhada em Bogotá

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Urban agroecology has become common in Latin American cities. This article analyzes knowledge encounters and communicative practices among urban farmers in Bogota, Colombia. We visited gardens and applied a qualitative and quantitative questionnaire, participatory ethnography and analyzed social media metrics. These initiatives exist and persist thanks to communication, both face-to-face and mediated through social media: it allows urban farmers to organize, meet, learn and reach agreements.

KEYWORDS: Communicative practices, social movements, agroecology, Colombia.

La agroecología urbana se ha vuelto común en ciudades de América Latina. Este artículo analiza encuentros de saberes y prácticas comunicativas entre agricultores urbanos en Bogotá, Colombia. Visitamos huertas y aplicamos un cuestionario cualitativo y cuantitativo, etnografía participativa y analizamos métricas de redes sociales. Estas iniciativas existen y persisten gracias a la comunicación, cara a cara y mediada a través de redes sociales: les permite organizarse, reunirse, aprender y llegar a acuerdos.

PALABRAS CLAVE: Prácticas comunicativas, movimientos sociales, agroecología, Colombia.

A agroecologia urbana tem se tornado comum nas cidades latino-americanas. Este artigo analisa os encontros de conhecimento e as práticas comunicativas entre os agricultores urbanos de Bogotá, Colômbia. Visitamos hortas e aplicamos um questionário qualitativo e quantitativo, etnografia participativa e analisamos métricas de redes sociais. Essas iniciativas existem e persistem graças à comunicação, face a face e mediada por redes sociais, ela permite que eles se organizem, se encontrem, aprendam e cheguem a acordos.

PALAVRAS-CHAVE: Práticas comunicativas, movimentos sociais, agroecologia, Colômbia.

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INTRODUCTION

Interest in urban agriculture and agroecology has been growing in recent decades in different parts of the world. It is estimated that urban food production has doubled globally in the last 15 years (Altieri & Nicholls, 2020). The heavy reliance on increasingly complex food distribution networks with an abundance of intermediaries, the disconnection from nature in urban environments, the environmental crisis and concerns about food quality, the impact of industrial agrochemicals and the genetic modification of seeds have led individuals, families and citizen collectives to explore the creation of small gardens in cities. Altieri and Nicholls (2020) point out that: "Access to food is critical for cities with more than 5 million inhabitants that, to feed their citizens, need to import at least 2 000 tons of food per day, which also travel an average of 1 000 kilometers" (p. 4).

These food systems could hardly be described as sustainable and are always exposed to external shocks, such as natural disasters, war conflicts or epidemics. It is not surprising that the Covid-19 pandemic heightened interest in urban agriculture and agroecology (Chandran, 2020). There were logistical disruptions, price hikes, fewer fresh fruits and vegetables available in some conventional supply chains, and this could create a vicious cycle: diabetes, hypertension, and other food quality-related diseases are risk factors for Covid-19 mortality (IPES-Food, 2020, p. 6).

The topic of urban agriculture and agroecology has been explored from various disciplines and angles, but research from a communication perspective is not abundant (Manosalva, 2020). However, the creation, circulation, and reception of information on techniques, inputs, and care; the formation, organization, and functioning of gardening groups and collectives; and the mechanisms for generating, sustaining, and expanding interest in urban agriculture (Nicholls & Altieri, 2018) are crucially based on communication practices (Nicholls & Altieri, 2018).

This article is drawn upon results obtained from the research "Communication practices in urban agriculture in Medellin" (2018-2020), in which researchers from three Colombian universities participated:

the Javeriana University, the University of Antioquia, the Autonomous University of the West, and activist collectives in Bogota, Medellin and Cali, in particular Urban Gardeners Network Medellín (Red de Huerteros Medellin). We were interested in investigating the local nuances of a practice that has diverse expressions worldwide (Schwab et al., 2018).

We investigated how urban agroecology citizen collectives are formed, how they interact, what sources of information they resort to, how they form networks and attract more people. In short, we were interested in the central role that communication plays in the organizational processes and in the daily social practices around urban agroecology of "huertero" collectives in Colombia. This article focuses on the results obtained in Bogota (García, 2019), which "as the nation's capital, presents the largest and best experiences in urban and peri-urban agriculture" (Carranza et al., 2021, p. 54).

BACKGROUND

Urban agriculture can be understood as the use of small spaces in urban environments for food production. It is defined by the Food and Agriculture Organization of the United Nations (2018) as "the cultivation of plants and animal husbandry in and around cities. Urban and peri-urban agriculture provides food products from different types of animals as well as non-food products" (n.p.). Understood in this way, urban agriculture is related to food security, is compatible with commercial interest and does not conflict with the use of agrochemicals or transgenic seeds. Its practitioners see it as an apolitical and interest-free action (Manosalva, 2020, p. 89). In turn, agroecology "incorporates ideas about a more environmentally and socially sensitive approach to agriculture, focused not only on production but also on the ecological sustainability of the production system" (Restrepo et al., 2000, p. 6).

There are various understandings of agroecology: a science, a socio-political movement or an agricultural practice (León-Sicard et al., 2017, p. 296). Here we understand it as a specific modality of urban agriculture interested in the configuration of relationships between plants and their biosystem, including the human beings that coexist with them. People interested in agroecology are not so concerned with the mas-

sive productivity of their gardens (Manosalva, 2020, p. 90), although this is possible as has been demonstrated in Cuba (Koont, 2011) and Argentina (Spiaggi, 2010), but with reestablishing connections to the land, appropriating delegitimized but vital knowledge of nature, reintegrating into their territories and repairing social fabrics wounded by the commodification of space, multiple forms of violence and mistrust.

According to the United Nations, in 2017 there were already close to 50 megacities, most of them located in the Global South. These large modern cities have been built largely with their backs to the characteristics of the territories they occupy and their construction involves:

The destruction of fertile soil, the rupture between the soil and the atmosphere, the transfer of water courses, the impermeabilization of soils, the dumping of wastes, foreign to nature or in such quantity that they saturate the ecosystem's capacity to recycle them (Hernández et al., 2009, p. 544).

Even so, citizens and collectives around the world and in the Global South have been proposing and deploying concrete actions to overcome this situation, to live in greater harmony with nature, to reconfigure cities, and to bet on good living. Urban gardens can be understood as collective actions conceived from the perspective of the commons. Citizens organize and appropriate the territory to produce their own food and manage natural resources autonomously (Biazoti & Sorrentino, 2022, p. 6).

Urban agroecology has been analyzed in Anglo-Saxon academic literature from multiple perspectives. Some authors speak of practices based on a challenging and countercultural political ideology (McKay, 2011); of the reappropriation of the commons and the search for alternatives in the fissures of capitalism by sectors of the citizenry (Thompson, 2015, p. 1022); of a militant urban anarchism that appeals to tactics of resistance similar to those of subversive groups in the Global South, and thus can be described as forms of "guerrilla gardening" (Tracey, 2007), challenging property regimes and illustrating efforts

to achieve locally-defined sustainability (Crane et al., 2013, p. 74), or of subversion, critique, mischief, spontaneity, autonomy, illegality and low profile (Crane et al., 2013, p. 76).

According to McKay (2011, p. 6), urban gardens emerge as a form of protest, and are therefore connected to notions of utopia, community, activism, peace and environmental care. They can also be seen as efforts to materially transform public space in alliance with non-human agents (plants and animals), reconceptualizing in the process the understanding of the "natural" through unconventional political means and processes (Certoma & Tornaghi, 2015, p. 1125). Barthel et al. (2015) analyze urban gardens in different countries in Europe and understand them as a social movement and as instances of building senses of community. However, Certoma and Tornaghi (2015, p. 1123) argue that not all urban agricultural practices have a countercultural spirit.

Research should confirm whether the enunciation of objectives of committed ecology, landscaping from below, counter-neoliberal and counter-developmental anarchism, food sovereignty, community empowerment, reconstruction of the urban commons and the right to the city are verified in reality.

Some Anglo-Saxon authors find in urban gardens spaces for activities arising from dissimilar motivations, not necessarily countercultural and sometimes not necessarily worthy of applause (Adams & Hardman, 2014). They could be recreational activities and spaces that do not confront any order, quiet pastimes that allow their practitioners to relax and recover to continue their usual activities with renewed energy and promote productivity. In this case, urban gardens would be spaces of resignation to the constraints and mandates of neoliberal agendas in which loosely interconnected citizen groups attempt to precariously provide themselves with food in a logic of self-help disregarding the complex dynamics of food production (Biazoti & Sorrentino, 2022; Certoma & Tornaghi, 2015). The cooptation of urban agriculture initiatives and collectives by governments in cities around the world for political gain, electoral patronage and efficiency metrics is a sign that not all of these practices have a progressive or countercultural character (Certoma & Tornaghi, 2015, p. 1124).

In Latin America, the academic literature on urban agriculture is extensive and much of it has been related to the livelihood efforts of the marginalized population (Schwab et al., 2018, p. 17). Undoubtedly, one of the most influential authors is Altieri (Altieri & Nicholls, 2013, 2020; Altieri & Toledo, 2011), who has addressed many facets and experiences. Some literature focuses on the productivity potential offered by urban agriculture (Clavijo & Cuví, 2017). That is the case of the work of Leandro (2013), which analyzes production processes in the city of Bogota and finds that most of the urban farmers he contacted produce only for self-consumption. Izquierdo (2017) explored other cases of urban agriculture implementation in Bogota. De Aguino and De Assis (2007) conducted similar work in the context of Brazil. Although it is perhaps unrealistic to think that cities can "quickly return to the level of food self-sufficiency they had before the 20th century, the benefits urban and peri-urban agriculture bring to cities are indisputable" (Matarán et al., 2019, p. 27).

Another part of the regional literature focuses on the dialogues about knowledge around urban agriculture, in which citizens, migrants from the countryside and experts meet. Bonillo (2005) and Jiménez (2017) consider vegetable gardens as places of intergenerational learning. In a similar vein, Cantor (2010) described how Colombian peasants displaced by violence arrive in Bogota anxiously searching for ways of subsistence and turn to their agricultural know-how.

For his part, Gortaire (2016, p. 13) considers that agroecology constitutes a way for the recovery of food sovereignty in Ecuador, connected to the historical demands of the indigenous peasant movement. In Colombia, Prada et al. (2021) emphasize that community agroecology strengthens the sense of territorial belonging and generates sensitivity for life. Alvarado et al. (2015, p. 84) highlight the growing alliances and dialogues between producers and the gastronomic sector in Peru. Hoinle (2022) confirmed an intuition held by practitioners and experts in urban agroecology: urban gardens are places for women's empowerment. Along the same lines, Martin (2019) assures that the process of agriculture is based on care, intersectionality and community, something associated with "feminized" actions and historically abundant in female efforts.

Acevedo (2013) explored how agricultural knowledge in environments where migrant farmers and urban citizens coexist is transmitted generationally and how learning not only aims to transmit technical knowledge, but also to strengthen the self-esteem of the participants, build social fabric and recover or reaffirm traditions. Nieto (2009) carried out participatory research that sought to encourage agroecological practices in Bogota and to promote spaces for dialogue among neighbors. Thus, the creative workshops he carried out made it possible for young children and adults to meet. Altieri and Nicholls (2013) concluded that peasants and indigenous people practice the resilience through their knowledge and develop tactics to face climate change that don't clash with Western science, but are not those promoted by governmental institutions. Comassetto et al. (2013) found in Brazil that urban agriculture could be understood as a resistance to the consumer society.

This brief review of academic literature shows an abundance of works and approaches in different disciplines of the social sciences, but also a scarcity of research from the field of communication. According to Moreira (2022), the existing literature on agri-food systems from a communication perspective "mainly emphasizes external communication strategies, namely through the lens of (social) marketing... often revealing critical views on the pitfalls of greenwashing" (p. 2).

URBAN AGROECOLOGY AS A SOCIAL MOVEMENT AND COMMUNICATION

The academic literature on social movements and collective actions is extensive both in hegemonic countries and in the Global South. This is not the space to discuss this topic in depth, but we would like to highlight certain nuances that Latin American scholars have developed, since our context is different. Here, families, rural migrants, neighborhood ties and daily life are decisive for mobilization (Zibechi, 2015, p. 27), and for this reason there is a crucial role for women. Rivera (1996) confirms this: "politics is not so much defined in the streets as in the more intimate realm of markets and domestic units" (p. 132). The social movements behind many urban agroecology practices are largely made up of women, boys and girls, and operate according to principles of reciprocity and mutual aid (Zibechi, 2015, p. 30).

According to Scott (2000, p. 147), the practices of social movements cannot occur without communication, which is what allows for organization, coordination, convening, maintenance of enthusiasm, negotiation of internal dissent, dialogue with other social actors, dissemination of ideas, proposals and results to the citizenry and renewal of ideologies. Communication allows the passage from individual and episodic actions of isolated subjects to group practices of dissidence. Collectives are constituted in and through communication, explains Kavada (2016, p. 9), but despite the importance of this internal communication, research has not delved as much "into the concrete (micro)dynamics of comunication that take place within groups" (Moreira, 2022, p. 3), a topic we explore in our research.

In addition to daily face-to-face interaction that reinforces sociality, communication in contemporary social movements also flows through digital media, which are very useful for sustaining rituality and fostering innovation (Martín-Barbero, 1990). Daily face-to-face communication and the use of digital social networks give sustenance to organizational forms, facilitate decentralized political action, generate communitarianism (Juárez, 2010) and allow what Gerbaudo (2012) describes as "soft leaders", more important for tactical decisions and sustaining motivation than the vertical leaderships of the past, to convene participation and facilitate action in ensemble choreographies. While not replacing face-to-face interaction in family gardens and neighborhood parks, digital platforms link "separate individuals without the need for a coherent collective identity or formal organization" (Kavada, 2016, p. 8).

The filial and affective base in territories inhabited on the basis of belonging (Haesbaert, 2013) gives these movements a particularly strong resilience capacity. Therefore, "they are capable of minimizing and overcoming the harmful effects of adversities and disadvantaged and socio-culturally deprived contexts, capable of recovering after having undergone notably traumatic experiences" (Uriarte, 2013, p. 8).

METHODOLOGY

The basis of the research was the application of a questionnaire with 65 questions, both quantitative and qualitative, and georeferencing in

more than 80 urban gardens in Medellin and seven in Bogota. We used open access data collection tools (KoboToolbox and OpenStreet Map).

The seven orchards in Bogota were chosen using a maximum variation sample, with the idea of configuring a heterogeneous sample as diverse as possible: four orchards were communal, two familial and one private, spread over the four cardinal points of Bogota and covering areas of upper class, middle class and popular sectors (Garcia, 2019).

One vegetable garden is located in the Roma neighborhood. It is called Huerta Iguaque, an initiative of the neighborhood's residents. They started in 2018 and their main interest is the recovery of ancestral seeds and the construction of the social fabric. In second place, there is the Compostela collaborative vegetable garden, managed by a couple of young people and women heads of households; in addition to planting, they want to recover deteriorated public spaces. In third place, there is the Huerta Santa Elena, which has been operating for 17 years in the La Perseverancia neighborhood. It belongs to María Elena Villamil, who became interested in agroecology along with other residents and the parish priest of the area. Villamil took a certificate program, adapted the patio of her house to convert it into a vegetable garden and, over time, became a reference point for the vegetable garden movement in Bogota. She teaches courses, receives interns and has worked with young artists. The fourth garden studied is very small, created by three young people who share a house in an upper-middle-class neighborhood: La Esmeralda. They have developed home planting and vermiculture processes. The fifth garden is located in an apartment in Teusaquillo and belongs to a young university student; it is vertical and has produced aromatic and medicinal plants. The sixth is Jardín 82, a community project financed by the Goethe Institute of Germany. It has been operating since 2015, has learning spaces, artistic collaborations and events funded by the institution. Finally, the seventh vegetable garden belongs to the Chipacuy collective. This is a community space that seeks to build a social fabric in the area. This garden has allowed the recovery of a public space that was abandoned and overtaken by criminal activity, and it is also a pedagogical space based on planting and caring for plants.

In addition to applying the questionnaire, we visited the orchards to carry out participatory ethnography. For the latter, we used a field diary. Additionally, we wanted to inquire about the state of interest in urban agroecology during the Covid-19 pandemic and for this we resorted to the metrics (Group Insights) offered by Facebook to the administrators of the garden groups in Bogota and Medellin.

FINDINGS

We identified two types of gardens: collective and private. Private gardens include family gardens, small groups of cohabitants, or individual plots. A garden is considered communal when participants do not live together and organize to work in open spaces. Private gardens are closed to the general public and belong to only a few people, while public gardens are open spaces where any neighbor can participate. Family gardens are located in homes where the inhabitants are described as a family. Gardens closed to the public may have more flexible working hours, whereas open gardens tend to follow a more systematic schedule.

We found individuals and collectives from highly diverse economic backgrounds, suggesting that urban agroecology is no longer a practice exclusively associated with low-income and rural-origin populations, as concluded by Schwab et al. (2018, p. 20). For example, in one of the community gardens, the founders come from various occupations and professions: biology students, different branches of engineering, social sciences, and psychology. Other urban gardens included participants of widely varying age groups. These findings align with Kavada's (2016, p. 8) description of contemporary collectives as heterogeneous, composed of individuals who may not even share the same ideology but are connected through familial, neighborhood, or friendship ties, as emphasized by Zibechi (2015).

The average number of people working in the orchards studied in Bogota is four, most of them between 19 and 24 years old. There are more women than men. On average, people who work in these gardens dedicate 7.2 hours of their time per week to them. The sample gardens have an average age of 33 months.

There are more than 40 varieties of cultivated vegetables, mainly cilantro, but also garlic, corn, chard, and lettuce. As for aromatic and medicinal plants, the most frequent is rosemary, followed by marigold and mint. Regarding fruits, most of the orchards have strawberries, cape gooseberries, pineapple and papayuela (Garcia, 2019).

The experiences we met transcend the field of urban agriculture to approach that of agroecology. To support this finding, we used the stories of the origins of each garden and the evolution of their interests. Those located in homes began with the purpose of having vegetables for their own consumption and, over time, this purpose was complemented by the interest in food sovereignty. It was evident that community gardens are committed to building the social fabric by reconnecting with the territory and the land, teaching environmental care and recovering ancestral plants. They are interested in recovering crops native to the Andean region, discriminated against in recent centuries by Eurocentric gastronomy; sharing their experiences with other neighbors and reconnecting with nature. Thus, the vegetable gardens studied in Bogota go beyond planting for survival (Schwab et al., 2018) and approach the countercultural perspectives of urban agroecology described by McKay (2011).

Some gardens, such as Santa Elena, Teusaquillo, and La Esmeralda, were initially created with the goal of growing food for personal consumption -these three share the trait of being located in private residences. However, this has evolved over time, and today, other objectives have emerged, including environmental care and food sovereignty. María Elena Villamil, the owner of Huerta Santa Elena, described her journey as a "consciousness awakening". Similarly, Sabrina, from La Esmeralda garden, mentioned that her garden has deepened her interest in food sovereignty. She concluded that if she wanted access to organic food, the best option was to produce it herself: "I thought it was really cool to have food that wasn't full of chemicals because organic markets are usually extremely expensive. It's something that has become highly elitist" (personal communication, March 2019). And yet, in a surprising finding, we discovered that middle-class sectors have also shown interest in these gardening initiatives. It is not only marginalized populations of rural origin or citizens mobilized

by institutional efforts, as Carranza et al. (2021, p. 25) argue, but also middle and even upper-middle class groups that have developed greater environmental awareness and interest in agroecological practices.

The other gardens in the sample are community-based. La Chipahuerta, managed by the popular education collective Chipacuy, has emphasized its pedagogical dimension. In the words of Pablo, one of the collective's members: "Without a doubt, environmental education is at the core of this project; popular education aims to blend ancestral knowledge and validate it in the present, supported by its environmental impact" (personal communication, March 2019). Huerta Iguaque and the Compostela gardens were founded with the goal of cleansing transgenic seeds, providing access to food free of agrochemicals, building food sovereignty, and, most importantly, fostering connections among neighbors and strengthening social bonds. "Food prices keep rising, and its quality is getting worse –full of agrochemicals, all of that. So we need a space to cleanse these kinds of seeds, produce all sorts of food, organize communal work (minga), share meals, and connect with one another", adds Piña from Huerta Iguaque (personal communication, March 2019). Jardín 82 shares this approach. It is located in an inner garden at the Goethe Institute in northern Bogota. Inspired by agroecological initiatives in Germany, the organizers decided to fund this project (García, 2019), and it has since attracted residents from middle and upper-middle class backgrounds in the area.

On the other hand, regarding communication, it is important to high-light the integration of people within gardening spaces. This not only facilitates the physical act of planting but also fosters dialogue among individuals who recognize and engage with one another. These spaces become hubs for exchange, learning, and discussion on topics related to agroecology. We found that Bogota's urban gardens reflect a pattern previously observed in Medellin: "Knowledge seems to be the most valued asset among all gardeners, and it is through it that many relationships are woven" (Restrepo et al., 2020, p. 111).

For gardens to function effectively, communication must be continuous and essential. As Kavada (2016) suggests, communication is what allows collectives to endure –thanks to what Martín-Barbero

(1990) refers to as rituality. Most community gardens hold *mingas*³ and/ or weekly workshops to care for the plants.

As a communication tool, all the gardeners –including those in family and private gardens– use WhatsApp to keep in touch with other members. All community gardens have Facebook pages through which they call meetings and some also have a presence on Instagram. It is common for urban gardeners to take notes of new things they learn and record, take photos of the place, make videos and draw. The constant recording of activities in the gardens makes it possible to disseminate the work done and the achievements obtained with other members through WhatsApp groups, and social networks are used to attract new interested people.

Many of the vegetable gardens emerged or were consolidated with the support of social networks, but also through word-of-mouth: La Chipahuerta was created by a group of friends from the area, who had initially formed the Chipacuy collective and, through digital networks, brought together more neighbors. In the case of the Iguaque garden, friends from the neighborhood started the garden and, through wordof-mouth, managed to attract more neighbors. Jardín 82 mainly used social networks to get started, but also made itself known to neighbors in the area at events at the Goethe Institute. The Compostela huerta initially used word-of-mouth, but social networks were essential to attract the majority of its members. Huerta Santa Elena, although not maintained by a formal group, has managed to generate support networks and establish contacts with institutions such as artists' collectives and universities thanks to interviews in the media and the use of social networks. The orchards of La Esmeralda and Teusaquillo were formed thanks to the residential cohabitation of their members; so interactions already existed. All the gardens claim to have influenced others to multiply agroecology initiatives in the city (García, 2019).

Communication facilitates the flow and combination of ideas for the creation of new methods applied in the gardens; the technicality mentioned by Martín-Barbero (1990). Most of the gardens investigated

³ A term used in Colombia to refer to a gathering where community work is done.

have engaged with networks or collectives of gardens in Bogota through meetings, events or the Internet. Some examples of innovation arising from these knowledge exchanges are the construction of ingenious irrigation systems, different ways of fertilizing the soil or eye-catching structures for gardens.

Although most gardens operate as essentially horizontal organizations without rigid hierarchies, the reality is that each garden has at least one leader who organizes its functioning, and in some cases, this leadership is strong. However, we also found gardens with what Gerbaudo (2012) defines as "soft leaders": those who "do not want to be seen as leaders in the first place, but whose work in setting the atmosphere and creating scripts has been decisive in achieving a certain degree of coherence" (p. 13). Without some form of leadership, the long-term survival of urban gardening initiatives would be highly challenging.

Responsibilities must be distributed, which may vary depending on the physical needs of the gardens (whether they are vertical, in pots, or directly in the soil). Activity schedules must be established, whether for public access or maintenance, and, undoubtedly, funding sources must be secured. On this last point, it is worth noting that one of the gardens in the Bogota sample is sponsored by an educational institution, while the other six sustain themselves through their own financial means. Some participate in district competitions to obtain funds, sell some of their products, create goods from their harvests, or have their collaborators allocate part of their personal savings.

Finally, we must highlight the resilience demonstrated by the individuals and collectives involved in these gardens. In Colombia, free seeds are not permitted –they are illegal– making it a challenge to obtain, preserve, exchange, and use them. Additionally, economic factors affect the livelihood of urban gardeners and their ability to keep their gardens alive amidst precarious labor conditions. Environmental factors also pose challenges to the proper functioning of these gardens: climate change, frost, droughts, air pollution, and new constructions that block sunlight. Furthermore, there are risks of pests or the uncontrolled growth of certain plants. In every garden, we found testimonies of how urban gardeners find ways to overcome difficulties and sustain or renew their projects.

This resilience of urban gardeners was put to the test during the completion of the research that informed this article. The Covid-19 pandemic, the associated quarantines, the difficulty in meeting and the scarcity of certain agricultural inputs endangered the continuity of many gardens. But, at the same time, the economic crisis, the difficulties in the supply chain, the abundant time available in households under confinement and the reflexivity that the pandemic generated in some social sectors about the limited autonomy of urban life and the impoverished relationship that we as city dwellers have with the land, prompted renewed interest in agroecology (Tarhuni et al., 2020).

Although this information is not exhaustive, the number of members and the metrics (Group Insights) offered by Facebook to the administrators of large groups dedicated to urban agroecology in Medellin and Bogota show significant increases in members, published content and general activity from the first months of the pandemic to the present.

TABLE 1
MEMBERS OF FACEBOOK GROUPS RELATED TO URBAN AGROECOLOGY
IN BOGOTA AND MEDELLIN, COLOMBIA

Name of the collective on	Followers	Followers	Increase
Facebook	June,	February,	%
	2020	2025	
Agroecology in Bogota Region	2850	4496	157.7
Urban Agriculture Bogota	910	2251	247.3
Network of Gardens and Urban	4073	14722	361.4
Gardeners Bacatá-Region			
Urban Gardeners Network	8 5 6 7	12717	48.4
Medellin			
Total	19612	34 186	74.3

Source: The authors.

It is also significant that several home-delivered fruit and vegetable suppliers in Bogota added seeds, seedlings and potting soil to their supply during the pandemic, and the Botanical Garden of Bogota intensified its offerings of virtual courses in urban agriculture.

FINAL REMARKS

The field work of this research allowed us to identify that the gardening groups and collectives we contacted in Bogota operate along the lines of urban agroecology. Their gardens constitute integral processes that, in addition to promoting healthy eating, are committed to caring for the environment, building community with other people, generating environmental and social resistance, experimenting (Manosalva, 2020, p. 91) and building utopias in a communitarian way (Biazoti & Sorrentino, 2022, p. 2).

The exchange of knowledge enables individuals and communities to recognize themselves and takes place through a wide variety of communicative practices: direct contact and active listening; dialogues in the gardens or at related events; conversations among neighbors, friends, acquaintances, or family members; debates on agroecology in Facebook groups or WhatsApp chats dedicated to the gardens; the use of digital manuals or specialized videos found online, among others. Urban gardens exist and endure thanks to communication: through it, they organize, meet, learn, reach agreements, and resist (García, 2019). All the gardens studied explore ways to sustain themselves over time, attract volunteers, secure funding, and build community through communicative practices. They organize and persist thanks to both "soft leaders" (Gerbaudo, 2012) and strong leaders, though their hierarchies remain relatively flat.

Gardens serve as spaces for promoting health, consuming organic food, and deepening love and knowledge of the land. However, beyond that, they also bring neighbors together, raise environmental awareness, encourage questioning of mass consumption, and rebuild the social fabric of the city. The gardening practices observed are carried out by marginalized sectors as well as by collectives from middle-class backgrounds, suggesting a growing interest in urban agroecology in Bogota. Some gardens include activists from different socioeconomic backgrounds, making them less rigidly defined spaces —more open to the diversity of Latin American cities.

Gardening collectives challenge the tendency to evaluate the effectiveness of social mobilization in terms of its impact on public policies

and measurable changes in public opinion perceptions (Kavada, 2016, p. 10). Instead, they lead us to consider other signs of effectiveness: the very formation of collectives in urban environments characterized by anomie, fragmentation or class distinctions; the creation of new codes of interaction in megacities; the opening of citizen communication spaces in areas that had been privatized or instrumentalized; and the promotion of innovative lifestyles or those connected to a less anthropocentric ancestral wisdom that may help us survive the environmental crisis.

Ultimately, we confirm that human connections based on communication are essential for these types of initiatives to exist and expand, allowing us to leave our green mark on the asphalt.

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