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GETTING TO KNOW LOCAL COMMUNITIES THROUGH BACKYARDS: AN ETHNOGRAPHIC REFLECTION

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INTRODUCTION

This paper departs from an on-the-ground pilot case titled “In My Backyard? A citizen science pilot project on home farming and gardening”,[1] led by Rio Neiva – Environmental NGO and its partner CEA – Municipal Centre for Environmental Education of Esposende, Portugal, aiming to support a long-term transition to sustainable backyards.[2] It focused on a semi-rural region of northern Portugal, between the cities of Esposende and Viana do Castelo, during 2020.

The premise was based on the need for more information on home farming and gardening practices on this geographical area, where backyards are a common feature and part of a local family's cultural heritage. it's a region where living in houses is more common than in buildings and most of them have a backyard or an area for growing vegetables, plants and raising animals on a small scale – for consumption by the family that owns the land or for distribution among neighbours. Considering the unavailability of information and knowledge regarding backyards and the need to capture this reality, the project has taken an open definition of backyards as long as they are privately owned and managed within a domestic context, thus excluding any professional farming and gardening. Backyards can play an essential role in the well-being and health of those who deal directly with them. It's a physical outdoor activity, close to nature, and can contribute to a balanced diet free of harmful chemicals. Although the backyards studied in this project are private spaces, they can also significantly impact (positive or negative) far beyond the boundaries of a house or private land, playing a crucial role in local environmental sustainability and human health. Considering this scenario, our work focused on 1) collecting and analysing quantitative and qualitative data and 2) promoting knowledge transfer workshops on sustainable home farming and gardening practices. In short, citizens' participation was essential to meet the project's objectives, whether by answering our questions and welcoming us into their homes or participating in workshops and training courses. In this paper, we will highlight two outputs produced to process this data and reflect on the knowledge transfer activities: the care breviary with tips and knowledge we collected from people in their homes; and the documentary "In My Backyard", which tells the story of the project and its participants.

In addition to describing and reflecting on the process, mainly the fieldwork carried out with a multidisciplinary team between February and September 2020, we aim to contribute to discussing citizen science models in the context of semi-rural communities, going beyond its traditional hard-

data methodologies and adding an ethnographic, design-led approach. To articulate this discussion, this paper will be divided into the following parts: Leadership and local community, describing the particularities of the organisations involved and the work team; Fieldwork and approach, presenting the methodological approach strategies in the field; Results and feedback for the community; and Conclusions.

LEADERSHIP AND LOCAL COMMUNITY

The project was promoted by Rio Neiva Environmental NGO and its partner CEA - Municipal Centre for Environmental Education, as a way to ground the project in the local community where the NGO is located and to empower it with a public authority reach and feedback.

Since 1989, when Rio Neiva was founded by members from the local community concerned about the region's environmental challenges – as the arrival of new industries close to the Neiva River – the NGO has been an active agent of local transformation towards a sustainable, inclusive, and participatory territory.[3] Having more than 30 years of action in the territory, focused on the local scale, contributes to the relationship of trust and recognition of the local community, in addition to the location of its building on the banks of the Neiva River, in a very popular region with residents of the cities of Esposende and Viana do Castelo for outdoor walks and activities.

These factors contribute to a project of this nature, which deals with private space and the necessary trust of the participants to welcome the team into their homes and feel comfortable sharing information about their daily lives and their relationships with their backyards. The NGO's leadership favoured our ethnographic work and participant observation, which could have been a much slower and less successful initial phase of rapprochement.

On the other hand, CEA is a municipal infrastructure of Esposende that aims to promote environmental sustainability awareness, training and education, focusing on the local community. This partnership facilitated the collection of already existing information through the municipality or, as it turned out, the recognition that there was a lack of information on backyards in the region and the need for a project closer to and focused on the population.

This collaboration between a local NGO and the municipality was a two-way street: Rio Neiva would help to gather quality, hard-to-reach data on the region's backyards, and from this contact on the ground it would be able to convey people's main needs about sustainable practices in their backyards, and CEA helped with dissemination and free training courses inspired by the collected data.

FIELDWORK AND APPROACH

One of the most crucial aspects of a citizen-science project is how to reach and engage participants, which, as Rajul Pandya emphasised, is often a problem due to the lack of alignment between the actual demands of the population and the themes addressed by projects and researchers. While looking for people with a backyard, we had to attain two different sub-sets of this target group: local backyard owners for on-site visits and backyard owners for the online survey located anywhere in Portugal. Locals were targeted mainly through our newsletter, social media, partner contact list, local events and personal direct contacts. For the online survey, media outreach was key, as well as direct mailing to relevant organisations, fellow environmental NGOs and projects, and social media discussion groups. Between March and August 2020, we had 110 online responses; between February and September, we made 25 on-site visits.

An important moment for the project was the first event, where we had several members of the local community for a dinner made together with them, with the products that each one brought to represent their backyard (Figure 1). It was essential to engage citizens and to present the team, in addition to

stimulating networking between backyard owners in the region and recruiting potential volunteers for our field visits.

Figure 1. The project's first event with products brought by backyard owners. Photo: Ana Clara Roberti, 2020.

Online data solutions – COVID-19

Data collection is usually crucial for a citizen science project as Sherbinin et al. mentioned; ours was no different. The initial strategy was based on collecting data through a survey when doing on-site visits to backyards but still having the online version of the same survey available.[4] With the COVID-19 lockdown in the early stages of the project, the online survey jumped to our priority list.[5] We had to look into an online survey with the best interface possible and where we had control of the collected data.

Although our central goal was not aimed at a national scale or online data collection, the need to invest in this solution due to a situation beyond our control brought positive surprises. We observed that backyards played an important role in people's well-being during the pandemic. They were available to fill out forms and actively participate in online training provided by the project. It was possible to reach places far beyond the area where the NGO or the municipality have direct influence (Figures 2 and 3).

Figure 2. Citizen's location, online survey.

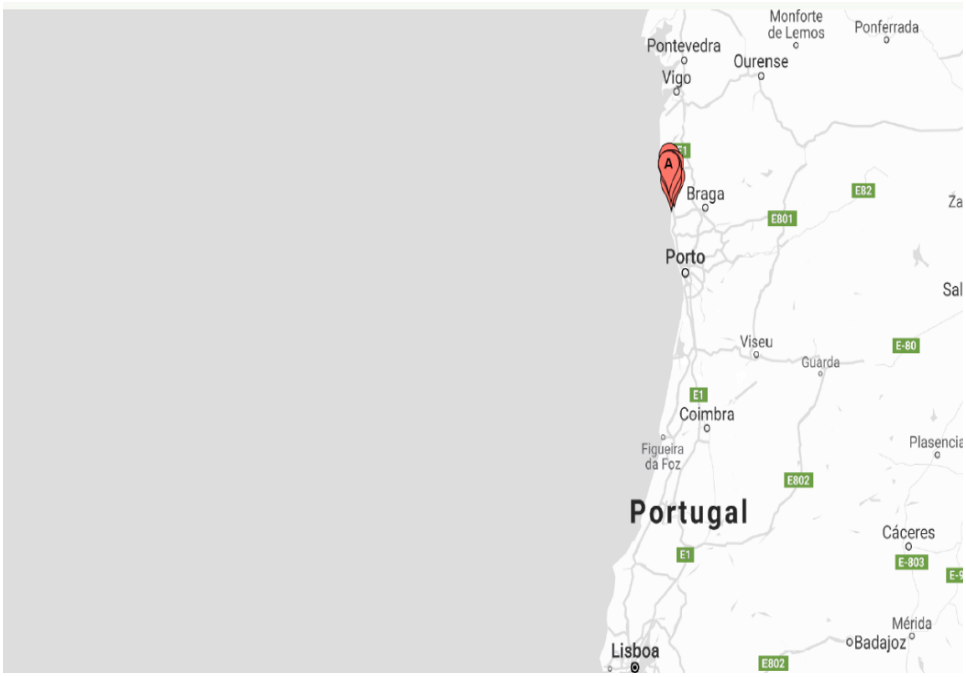

Figure 3. Citizen's location, on-site visits.

On-site visits – an ethnographic approach

Besides the online survey's interesting results and reach, the project aimed to go beyond the hard-data methodologies commonly used in citizen science. It incorporates tools from design and adopts an ethnographic approach where our engagement with participants and the interaction among participants were crucial to the process and final results.

One of the reasons justifying the importance of this approach was precisely the object of study: backyards are more than private; they are familiar spaces. This boundary is not just physical or

bureaucratic but strictly personal. In an ethnographic work, as pointed out by Allison Hurst, to access the places we intend to explore, we need to understand their rules and customs.
So, these spaces can play a crucial role in local environmental sustainability, human health, soil and water quality, the spread of invasive species, the use of pesticides, etc., but there is little to no information about them. They are difficult to access, and this absence of information is one of the reasons for the project's existence.
The idea was to understand the use of fertilisers and similar substances in the soil and, especially, to learn from the ecologically sustainable and beneficial techniques people practised. This generational and valuable knowledge is often unrecorded. Throughout the process, this focus stood out, proving the existence of much more significant and varied information than we initially anticipated, so we constantly emphasised to the participants in the field that our stance was much more to learn than to monitor them (Figure 4).

Figure 4. Fieldwork visits. Photo: Ana Clara Roberti, 2020.

We had to think carefully about our attitude in the fieldwork so that we didn't act like “inspectors”, checking whether they were using the land well or not. We listened and learnt. Otherwise, we wouldn't have even crossed these front doors.
Having a diverse and multidisciplinary team was crucial in shaping our strategies and actions in this direction. We have environmental science, ethnography, audiovisual, design, and community engagement experts. This collective expertise ensures a holistic approach to data collection and helps to enrich our understanding of the diverse facets of local life in a semi-rural community.
One crucial strategy was to invest in pilot visits right at the beginning of the project – before the COVID-19 pandemic in Portugal – with the people closest to the Rio Neiva NGO to understand how it would work. We carried out three pilot visits in very different backyards – number of family members, gender of backyard owners, type of animals raised, and food grown – and we realised that adjusting the initial plan and adapting it to the local reality would be necessary.
Initially, we had thought about making 50 visits, considering scheduling a maximum of 4 per day. With the pilot visits, we realised that we would need much more time for each visit, regardless of the size of the yards. Establishing dialogue and trust required a close relationship with people and time.

Even the time to taste the fruits and vegetables, or small meals made with products planted on site, was important for this rapprochement between the team and the citizens, but mainly for us to understand closely the relationship between people and their backyards. As a result, we reduced the number of participants (22 between June and September 2020) and adapted our questions.[6] We had fewer participants, more qualitative information, and more proximity to the local population.

We also realised that we would need at least two team members per visit, ideally three. As we filled out a questionnaire throughout the conversation and filmed and photographed the visits, it was necessary to ensure good interaction with the people who showed us their backyards. [7] We ensured that someone was always paying attention to what was said or shown and available to talk while other team members took notes or recorded the visit.

With this proximity and the appropriate time dedicated to each backyard – normally, each visit lasted an entire morning or afternoon, around three hours, so we never did more than two a day – we were often able to leave a house with an indication to visit another one, from a neighbour, friend or family member of the person we were with.

Over the 25 visits carried out, we found techniques passed down between generations; older adults who had backyard work as their main physical activity; health professionals at the time of the COVID-19 pandemic who believed that the time they spent taking care of their backyards was what kept them sane and made them get through the days and the emotional burden of hospitals; young people who learned from their parents and grandparents the importance of cultivating the land with care and treating animals with respect. The ethnographic work allowed us to see these situations up close, with time, patience, and availability, providing much more qualitative than quantitative knowledge but of great importance for validating the importance of studying backyards more closely (Figure 5).

Figure 5. Fieldwork visits. Photo: Ana Clara Roberti, 2020.

RESULTS AND FEEDBACK FROM THE COMMUNITY

The essence of this project was ethnographic work and getting to know the local community. Accordingly, and as Castañeda mentioned, this is what provides meaning and value to those who participated. Being a citizen science project, the population's participation was therefore essential,

from agreeing to open the doors of their homes for the team to sharing data from their backyards and filling in forms. So, we drew up a plan of activities and results to respond to and valorise this participation (Figure 6).

Figure 6. Overall project results. Image: Rui Monteiro.

Answering questions and fostering participation

To reciprocate this citizen's involvement and keep it active, part of our strategy was to organise training events and workshops directly related to the questions and needs we collected from house to house (Figure 7).

Figure 7. Example of a project workshop. Photo: Ana Clara Roberti, 2020.

These events were open and free of charge, held either in a place that was easily accessible and close to the local community or online – because of the lockdown periods and to enable people involved in the project via the online questionnaire in other parts of the country. CEA helped find the most suitable professionals to give these training courses, ranging from people active in the local community to trainers from other regions.

As well as being feedback for the citizens involved in the project, these events had two essential functions: to support and accelerate the transition to using sustainable and environmentally friendly practices in home farming and gardening and to put backyard owners in touch with each other and stimulate the exchange of knowledge, products, and sustainable practices.

Celebrating backyards and inscribing knowledge

The quantitative data collected was processed using graphs and tables that allowed us to understand a series of more objective information about the backyards studied in person and online at a national level – size in square metres, types of produce grown, number and species of animals, forms of irrigation, use of pesticides and fertilisers, etc., as illustrated in Figure 8.

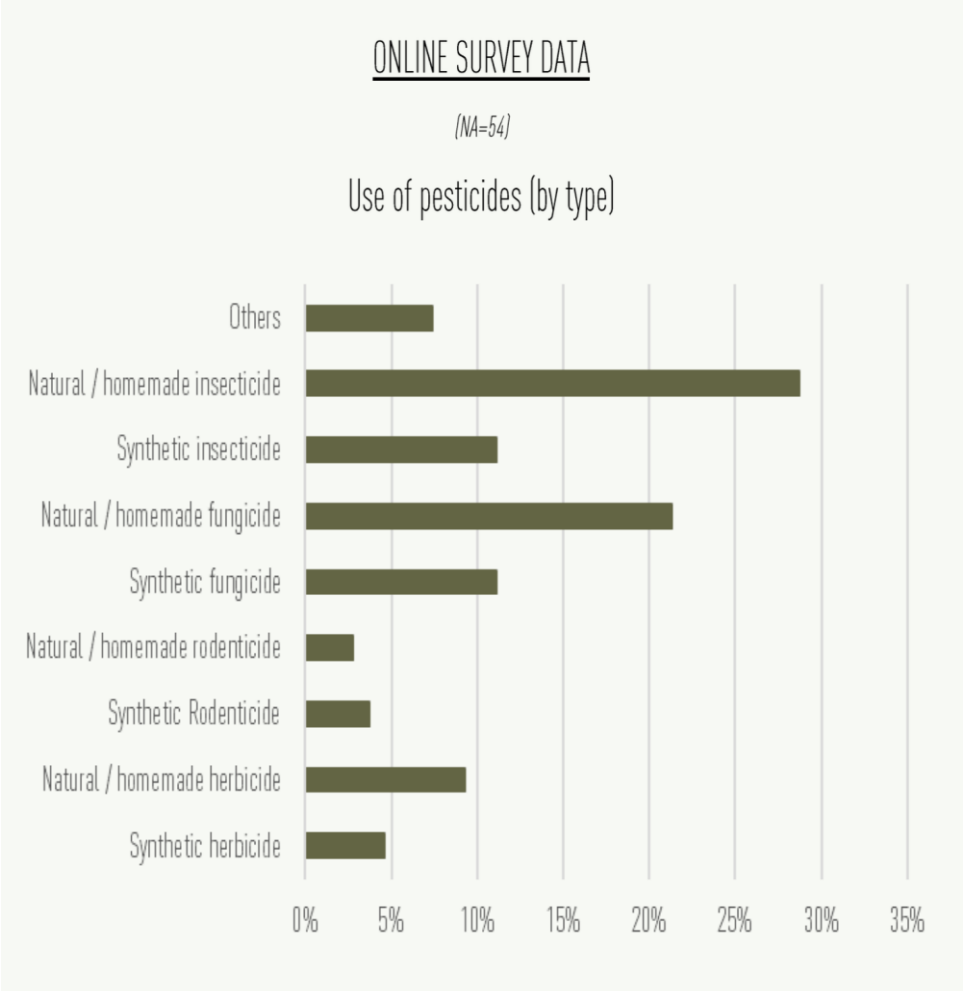

Figure 8. Example of a table produced with quantitative data collected. Image: Rui Monteiro.

To work and process the qualitative data, we used other strategies that contributed to both things: celebrating and valuing people's relationship with their backyards, which we know more deeply through the project's ethnographic work; and contributing to recording the valuable knowledge passed down among families who have taken care of their backyards for generations. In this sense, we highlight two outputs: the care breviary,[8] with tips and knowledge we collected from people in their homes, and the documentary "In My Backyard",[9] which tells the story of the project, these people, and their backyards.

A video documentary on a citizen science project might seem odd at first sight. Still, we sensed we required a tool to capture the personal and intimate space of a backyard, which a survey by itself would not be able to. The documentary was about the people we were engaging with, making sure they feel proud and how opening up deserves respect and empathy.

Writing a booklet on sustainable farming and gardening practices can also be intimidating. Either because it can be a never-ending job but also due to the already available vast diversity of books, blogs, videos, and so on the topic, which would make this redundant. So, the process of clarifying what this would be was challenged by what was emerging from field data. We opted to include a set of sustainable tips solely based on the shared knowledge of the backyard owners we have visited. We, therefore, believe it to be essential to inscribe and share on the ground savoir-faire and how this is also meaningful for those who have opened up.

Being a citizen science project and considering the importance of disseminating the knowledge acquired and processed during the project, these outputs are online and accessible to anyone interested in the topic.[10] Before becoming public, they were presented to citizens involved in the project in an event that brought together participants and partners to watch the documentary and see the booklet.

CONCLUSION

We concluded that backyards are an untapped area that can offer a wide range of environmental, economic, or even well-being benefits, and how ethnographic and design-led qualitative data can provide critical insights into such reality. Indeed, quantitative data allowed us to understand the diversity of pesticides and fertilisers used or of existing biodiversity, and qualitative data allowed us to contextualise these findings from a citizen perspective, valuing and disseminating this rich and unwritten knowledge.

Despite being spaces that have influence far beyond their domains, backyards are private and familiar spaces, which makes immersion and access to in-depth knowledge of them difficult. In this sense, the ethnographic, patient, and participatory approach was fundamental to entering this universe with respect and trust between the team and the citizens.

COVID-19 worsened this project's essence, precisely its proximity to the field and people, forcing the team to rethink its strategies and diversify its tools. An adversity that, despite delaying field visits, made us invest online and reach more people when backyards played a special role in a difficult time for humanity.

To deal with the qualitative data and all this proximity to the local population, we opted for outputs beyond graphs and tables that usually work more objectively. We processed the knowledge collected in conversations and walks with backyard owners through two narratives that resulted in a book and an ethnographic video documentary.

Along the way, we developed the project vision: valorising backyards as an integral element in territory development due to their social, environmental, and economic importance.

NOTES

[1] Project official website: https://rioneiva.com/nomeuquintal/
[2] The project was funded by ACTION - Participatory science toolkit against pollution, in the scope of Horizon 2020.
[3] Rio Neiva Environmental NGO mission, goals, and projects: https://rioneiva.com/
[4] We opted for the European Commission free and open EC Survey for the In My Backyard online survey.
[5] In Portugal, the COVID-19 pandemic officially began on 2 March 2020, and the In My Backyard project started in February of the same year.
[6] All the on-site visits throughout the project were conducted within the safety standards indicated by the Portuguese Government and the World Health Organisation in the context of the COVID-19 pandemic. For this reason, the field visits were suspended in March and restarted in June 2020.
[7] Photo gallery of the project: https://rioneiva.com/nomeuquintal/press-kit/
[8] Project's booklet available at:
https://rioneiva.com/wp-content/uploads/2024/02/BOOKLET_NO_MEU_QUINTAL_v2_small.pdf
[9] Projects documentary available at: https://vimeo.com/manage/videos/462032245
[10] We opted for a Creative Commons open license, which is straightforward in implementation and has legal standing across most countries. We chose the CC-BY-SA 4.0 license, which allows for open sharing and adaptation as long as credit is provided and is for non-profit uses.

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