

# ENCOUNTERS, COFFEES AND CONFLICTS:

REFLECTIONS FROM ACTION-RESEARCH  
ON A FEMINIST AUTONOMOUS NETWORK



# Acknowledgements

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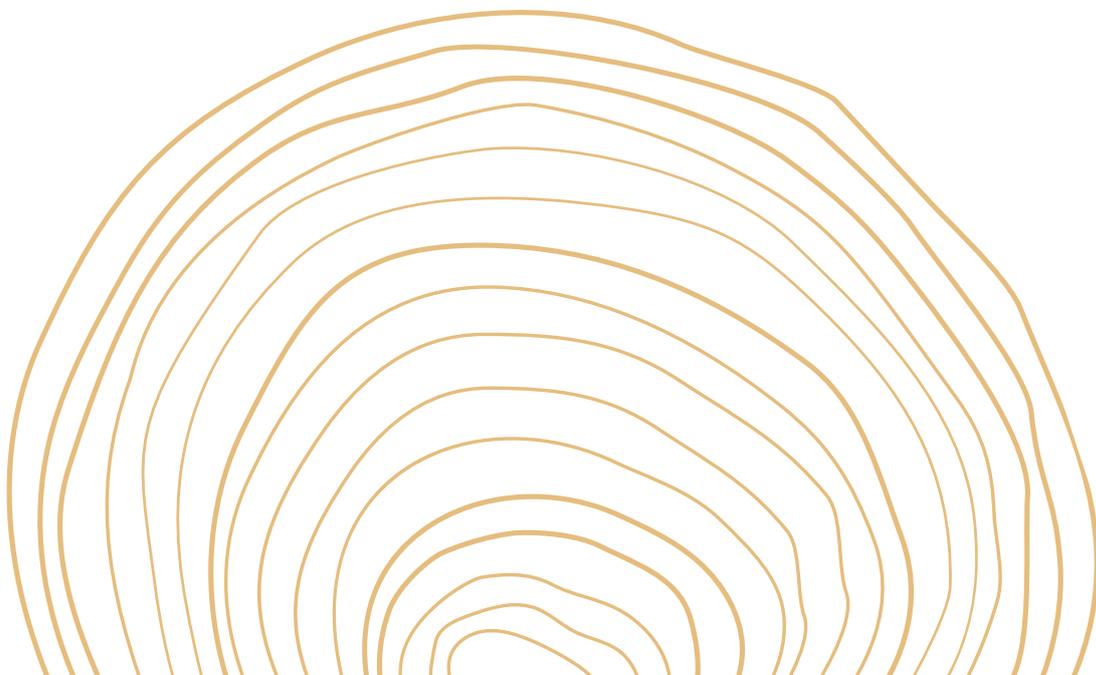
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# 1 | Introduction

This article summarises reflections of the action-research project developed between 2019 and 2021 by a group composed exclusively of women,<sup>1</sup> who set up a community network in an area without internet connectivity in Brazil – the quilombo Terra Seca. The community network was set up while conducting a participatory research process on information and communication technologies, more specifically community networks, through an intersectional feminist lens.

This action-research project envisages the implementation of a Wi-Fi community network in quilombo Terra Seca, pursuing the involvement of the entire region in multiple workshops and knowledge exchanges about networks, feminist infrastructures, popular education, agroecology, gender and race relations, traditional and digital technologies, technology and communication autonomy. The project

<sup>1</sup> Our facilitation and research group was composed of six women with a multidisciplinary background. Bruna Zanolli is an activist in the area of autonomous communications and human rights with interest in intersectional feminist and popular education principles as tools to narrow the gaps of access.

Carla Jancz is an Information Security Specialist, who works with digital security for third sector organisations and with free technologies and autonomous networks from a feminist and holistic perspective. Member of MariaLab, a feminist hacker collective that explores the intersection between gender and technology based in São Paulo, Brazil.

Daiane Araujo dos Santos is a Brazilian activist in human rights and in the Information and Communication Technologies field who contributes to the implementation of community networks in Brazil, bringing discussions about critical appropriation of technology and its impact on people's social and community life. Living in the periphery of the south of São Paulo (Brazil), she graduated in Geography in 2018 and since 2010, works in social movements.

Débora Prado is a journalist and activist with a background in social communications, feminism and human rights. Since 2017, she has been involved in researching feminist technologies and knowledge to challenge androcentric and colonial norms.

Glauca Marques is an agronomist and is part of the SOF (Sempreviva Feminist Organization) technical team that operates in the Vale do Ribeira region, contributing with the solidarity commercialisation and with agroecological and feminist technical assistance for the Agroecological Network of Women Farmers (RAMA, in the acronym in Portuguese).

Natália Santos Lobo is an agroecologist and part of SOF's technical team in Vale do Ribeira, working with the RAMA network.



encourages contemplation on the production of knowledge in this field based on two initial research questions that would guide our reflections from the experiences with the local community. How can the reach of community network technologies among women and traditional populations, considering the power relations that transverse the prospect of autonomous connectivity and communication, be expanded? What are the main shifts when a technological infrastructure is thought of and developed through an intersectional feminist perspective? Considering the intersectional lens, we also add a structural question to ourselves throughout the development of the project; how is race connected to unequal power and systemic structures in this experience, considering that this project was carried by our group,<sup>2</sup> which composed mostly of white women, in a territory of Black women?

Rather than finding answers, these questions have helped us to expand a set of reflections between different ways of living and of producing knowledge and techniques that escape, to some extent, normative models in the field of digital technologies,<sup>3</sup> (for example, the predominance of white males in this field and the concentration of power on the internet by large corporations that use manipulative and non-transparent models of relations with these technologies). The

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<sup>2</sup> In this article, when we use “us” and refer to “our group”, we are referring to the group of feminist activists from the field of technology and popular education who became engaged in different ways throughout the execution of the action-research project and contributed to the preparation of methodologies and each trip to the Ribeira Valley. Although in an attempt to break with hierarchical practices in the field of research, we have adopted participatory processes and a lens of encounter between different subjects – our group and the residents of the Vale do Ribeira region – it seemed artificial to not differentiate the group that led this project from the local community. This could sound like an attempt on our part to “speak for the community” and not with the community. In that sense, identifying our group seemed important to explain that the intention here is really to explore the power of the encounters that this project has provided, positioning the different parts involved.

<sup>3</sup> Zanolli, B., Jancz, C., Gonzalez, C., Araujo dos Santos, D., & Prado, D. (2018). Feminist infrastructure and community networks: An opportunity to rethink our connections from the bottom up, seeking diversity and autonomy. In A. Finlay (Ed.), *Global Information Society Watch 2018: Community Networks*. APC & IDRC.  
<https://www.giswatch.org/en/infrastructure/feminist-infrastructures-and-community-networks>

aim of this article is to share a portion of the reflections that have emerged from our experience, with the expectation of contributing to research and initiatives for technological appropriation that also devote themselves to strengthening diversity in these two fields.

It is worth sharing that we understand community networks as a connectivity solution to reduce the lack of access<sup>4</sup> through the collective installation of a local-level infrastructure and shared management of the technical and human aspects of a network. Recently, community networks have been perceived as an alternative to the search for greater autonomy in relation to communication and connectivity and to promote local social interactions – in distinct territories – with digital infrastructures.<sup>5</sup> As a result, the debate on community networks has been gaining new perspectives, going beyond the field of connectivity solutions for places and populations without internet access and becoming linked to other political agendas, such as critical perspectives on the internet and engagement in human rights struggles. Among the multiplicity of agendas that can permeate the process of installation and maintenance of a community network, is the intersectional feminist<sup>6</sup> perspective, which seeks to make this field welcoming to different groups and bodies, including different women.

<sup>4</sup> Zanolli, B. (2020, 9 January). Why Do People in Communities Need Connectivity? *Mozilla Foundation*. <https://foundation.mozilla.org/en/blog/why-do-people-communities-need-connectivity>

<sup>5</sup> Prado, D. (2019, 4 November). Community networks and feminist infrastructure: Reclaiming local knowledge and technologies beyond connectivity solutions. *GenderIT.org*. <https://www.genderit.org/es/node/5348>

<sup>6</sup> Kimberlé Williams Crenshaw conceptualised intersectionality to denote the various ways in which race and gender interact to shape the multiple dimensions of Black women's employment experiences. Although her theory has aroused controversy, Crenshaw helped to make visible some of the dynamics of structural intersectionality and pointed out that people and groups experience the overlapping of discriminatory systems. She also pointed out the limits in identity politics, affirming that its problem "is not that it fails to transcend difference, as some critics charge, but rather the opposite – that it frequently conflates or ignores intra group differences." For more information, see: Crenshaw, K. (1991). Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Review*, 43(6), 1241-1299. <https://www.racialequitytools.org/resourcefiles/mapping-margins.pdf>

The article will initially present the elements from this encounter with a brief presentation of the quilombo Terra Seca and references of the women who met in our group. Then we will share an overview of the methodological approach we have adopted along this journey and the project's trajectory over the course of two years. We conclude by bringing together our reflections around three topics that have emerged as fundamental in our process: 1) the meaning of feminist infrastructures<sup>7</sup> for this community network, 2) the importance of the perspective on race and 3) our learning in the process of attempting to translate intersectional principles and intentions into practice while facing the constant presence of the unforeseen.

We want to highlight that one unforeseen event that we could not have been imagined at the beginning of this journey was the emergence of a global pandemic and its profound negative impacts in Brazil. Aggravating things further, we are going through a global health emergency under a far-right government that denies science and public health measures, violates human rights and adopts an anti-feminist stance and aggressive authoritarian inclination towards traditional communities, such as quilombolas.<sup>8</sup> In this article, we will not delve into these developments, but we consider it is important to point out briefly how this difficult context frames our reflections when sharing the project's findings.

<sup>7</sup> More about feminist infrastructures: Toupin, S., & Hache, A. (2015). Feminist autonomous infrastructures. In A. Finlay (Ed.), *Global Information Society Watch 2015: Sexual rights and the internet*. APC and Hivos. [www.giswatch.org/sites/default/files/gw2015-hache.pdf](http://www.giswatch.org/sites/default/files/gw2015-hache.pdf); Zanolli, B., Jancz, C., Gonzalez, C., Araujo dos Santos, D., & Prado, D. (2018). Op. cit.

<sup>8</sup> According to Daiane dos Santos Araújo, quilombos emerged as refuges for Black people who escaped repression during the entire period of slavery in Brazil, between the 16th and 19th centuries. The inhabitants of these communities are called quilombolas. After the abolition, most of them preferred to continue in the villages they formed. With the 1988 Constitution, they gained the right to own and use the land they were on. Today Brazil has more than fifteen thousand quilombola communities. For more information, see: Araujo, D. (2021, 30 March). The contribution of bell hooks and Paulo Freire to the construction of community networks. *GenderIT.org*. <https://www.genderit.org/feminist-talk/contribution-bell-hooks-and-paulo-freire-construction-community-networks>

## 5 | The elements of our encounter

Beginning with the widespread notion of community networks presented above, we land this project in Latin America, Brazil, in the Vale do Ribeira (Ribeira Valley in a free translation) region in the state of São Paulo, in the city of Barra do Turvo, and more specifically, in the quilombo Terra Seca.

The Ribeira Valley is a region in Brazil comprising 25 cities, including Barra do Turvo, where seven quilombos are located, recognised by the Brazilian authorities. One of them is the quilombo Terra Seca, where our community network has emerged through this action-research project.

In the second half of the 20th century, so-called “development” projects, such as the construction of roads, dams and mining, arrived in this region. It is not difficult to imagine how the history of this region is affected by land conflicts and struggles for better living conditions.<sup>9</sup> However, the region also carries memories of resistance:

Ribeira Valley, located in the extreme south of the state of São Paulo, is the largest area of continuous Atlantic Forest remnants in Brazil. The presence of countless traditional communities made it possible to conserve these areas. In the region there are 24 Indigenous Guarani villages, 66 quilombola communities and 7,037 family farming establishments that involve traditional peasants (the “caipiras”), traditional fishermen (“caiçaras”) and migrants from the Brazilian metropolises, in general, children of farming parents expelled from the land in the past and pushed into urban areas and now returning to rural activity.<sup>10</sup>

<sup>9</sup> Jancz, C., Marques, G., Nobre, M., Moreno, R., Miranda, R., Saori, S., & Franco, V. (2018). *Práticas feministas de transformação da economia Autonomia das mulheres e agroecologia no Vale do Ribeira*. SOF. <http://www.sof.org.br/wp-content/uploads/2018/03/Praticas-feministas-portugu%C3%AAs-web1.pdf>

<sup>10</sup> Ibid.

Considering how different realities are impacted in specific ways by socio-technical networks, locating this project in a country and in a territory crossed by structural inequalities helps us to put into perspective how community networks are especially necessary for places where many rights are not guaranteed. Technical problems are often the simplest to solve. Connectivity often becomes another missing piece within a large puzzle of absences and endurances, where many non-digital technologies,<sup>11</sup> such as analogue and ancestral technologies, are mobilised every day.

In this context, since 2015, the Brazilian feminist organisation Sempre Viva Organização Feminista in Portuguese (SOF) has been working with women farmers in the quilombola regions with a feminist and agroecological perspective, which is based on an understanding of economics centred around the reproduction of all the resources necessary for life. In this sense, food production and consumption are taken as a starting point in seeking the democratisation of all power relations involved in social reproduction.<sup>12</sup>

SOF has been working with the local Agroecological Network of Women Farmers (RAMA), which is composed of groups of women from eight communities<sup>13</sup> in Barra

<sup>11</sup> Throughout our encounter with the community, in this project we jointly defined technology, in one of the immersions, as everything that involves a particular wisdom and ability to be materialised – not just digital paraphernalia.

<sup>12</sup> Jancz, C., Marques, G., Nobre, M., Moreno, R., Miranda, R., Saori, S., & Franco, V. (2018). Op. cit.

<sup>13</sup> These are the groups articulated at RAMA: As Margaridas (Bairro Indaiatuba), Rosas do Vale (Bairro Córrego da Onça e do Franco), As Perobas (quilombo Terra Seca), Mulheres do quilombo Ribeirão Grande, Mulheres do quilombo Cedro, Mulheres do Bairro Rio Vermelho, Grupo Esperança (Bairro Bela Vista), Mulheres do Conchas. The women's group called Perobas is the RAMA subgroup that brings together women from the Terra Seca quilombo. They are quilombola agroecological farmers who gather together to organise the women of the neighbourhood in their insertion mixed types of organisations (in cooperatives and associations for example). They also do their own actions for the group of women in the neighbourhood and get together to market their products to responsible consumers in the cities of Registro and São Paulo. For more information, see: SOF. (2020, 17 January). 2020 começou com mais um encontro de redes de comercialização solidária em Barra do Turvo. SOF. <https://www.sof.org.br/2020-comecou-com-mais-um-encontro-de-redes-de-comercializacao-solidaria-em-barra-do-turvo/>

do Turvo. According to SOF, the transition to feminist agroecology in Barra do Turvo is an ongoing process that seeks to value women's work, promote economic autonomy and renegotiate gender roles between women and men in the region.

This previous work carried out by SOF and the relationship of trust they built with the networks of local women farmers was fundamental for this action-research project. Seeking to realise communication autonomy in the territory, SOF, together with RAMA and feminist organisation, MariaLab,<sup>14</sup> began to imagine a community network in the Ribeira Valley region, back in 2017:

In the Ribeira Valley, we took the first steps to seek communication autonomy with the realisation of the project's information technology workshops "Capacity building and sharing experiences for an inclusive economy", with the support of the British Council's Newton Fund. In this initial visit, a network technician made a first general analysis of the territory and talked to the women about the possibility of installing an autonomous network to distribute internet on-site in the future.<sup>15</sup>

The proposal of the community network begins with the goal of potentialising the sale of agroecological products through the solidarity economy networks carried by the women farmers of the Ribeira Valley. Furthermore, there was an underlying affinity between the idea of seeking political autonomy, which feminist and quilombola movements already incorporated, with the objective of pursuing communication and technological autonomy

<sup>14</sup> <https://www.marialab.org>

<sup>15</sup> Jancz, C., Marques, G., Nobre, M., Moreno, R., Miranda, R., Saori, S., & Franco, V. (2018). Op. cit.

that is usually integrated into community networks and feminist infrastructure projects.<sup>16</sup> However, at the time this first workshop was held in the region, there were no resources for the community network's implementation nor resources to perform the necessary knowledge building for its sustainability.<sup>17</sup> Thus, the possibility of an alliance with our action-research project emerged in 2019.

With this partnership between the women of SOF and the RAMA network, our project arrived in the territory not only with a desire for a community network already expressed, but also endorsed by an active and respected feminist group, where alliances between the women were shared. This meant we could start the construction of a socio-technical network in a situation where social ties and political articulation already existed and was already open to an inclusive approach. It also meant having a human network already made up of a group of articulated women as a starting point. Even as an overview, the elements of this meeting are fundamental. The reflections we have built would not have been possible without these links between bodies and backgrounds of diverse social groups and knowledge fields. All share historical and structural inequalities in different ways and are, at the same time, places of resistance and cultivation of other ways of living and weaving technologies.

<sup>16</sup> The feminist activist Loreto Bravo (2017), writing about mobile in Oaxaca (México), proposes an ethical-political bridge between the hacker community and local communities to advance a conception of sovereignty technological for concepts of autonomy and self-determination. There is a rupture here in terms of not using a sovereignty approach that could be associated with development of nation-states, considering their role in the colonisation process, nor thinking in terms of individual freedoms, in a more liberal tradition, but leaving the flow open for local meaning and for more collective approaches. In this sense, in addition to collectivity and interdependence, the territorialisation and local contextualisation are also constitutive of the notion of autonomy. For more information, see: Haché, A., Cadon, B., COATI, Carolina, Kaneko, K., Bravo, L., Maxigas, & Padilla, M. (2017). *Technological Sovereignty Vol. 2*. Descontrol. <https://www.ritimo.org/IMG/pdf/sobtech2-en-with-covers-web-150dpi-2018-01-10.pdf>

<sup>17</sup> Jancz, C., Marques, G., Nobre, M., Moreno, R., Miranda, R., Saori, S., & Franco, V. (2018). Op. cit.

## 9 | Notes on methodology and an overview of the project's trajectory

At this point, it is important to highlight that for us the encounter works as an important methodology. We consider that the encounter this project allowed was central for the knowledge that emerged from it. It was a fundamental step to build relationships through consensus and conflict, agreement and disagreements, similarities and differences. It began with the encounter between the SOF and the quilombola women farmers in the region, and then between the Brazilian women involved in this action-research project, and finally between the group of people articulated in the feminist internet research network (FIRN)<sup>18</sup> from APC, who supported the realisation of this project between 2019 and 2021. They provided support not only with grants, but through constant feedback on our reflections and by providing exchanges with other researchers from the global South. The articulations between different social groups and established bodies weaved our reflections in this action research and emerged as fundamental to make the intersectional approach concrete.

As researchers who carry references of intersectional feminism<sup>19</sup> and from the field of popular education,<sup>20</sup> we are guided by a commitment to break hierarchies as much as possible among researchers, articulators, technicians and the community members. It is worth mentioning that one of our methodological choices is seeking to disrupt colonial

<sup>18</sup> <https://www.apc.org/en/project/firn-feminist-internet-research-network>

<sup>19</sup> Collins, P. H. (2017). Se perdeu na tradução? Feminismo negro, interseccionalidade e política emancipatória. *Parágrafo*, 5(1). <http://revistaseletronicas.fiamfaam.br/index.php/recicofi/article/view/559>; Crenshaw, K. (2002). *A Interseccionalidade na Discriminação de Raça e Gênero*. *Revista Estudos Feministas*. Universidade Católica de Salvador. <http://www.acaoeducativa.org.br/fdh/wpcontent/uploads/2012/09/Kimberle-Crenshaw.pdf>; Piscitelli, A. (2009). Gênero: A História de um Conceito. In *Diferenças, Igualdade*. São Paulo: Berlendis & Vertecchia..

<sup>20</sup> hooks, b. (1994). *Teaching to Transgress: Education as the Practice of Freedom*. Routledge; Freire, P. (1996). *Pedagogia da Autonomia: Saberes Necessárias à Prática Educativa*. São Paulo: Paz e Terra.

legacies in research production and escape from pretensions of research neutrality or schemes that hierarchise multiple subjects and knowledge.<sup>21</sup>

Similarly, when thinking about technology, based on our experiences in the field and our activism, we wanted to avoid reproducing the notion that only experts and technicians are people who have the best solutions to problems in local communities, or that digital technologies and internet connectivity can bring magical solutions to local, historical and complex problems. Under such a perspective, many times there is often an assumption that communities facing inequalities and discrimination are in definitive need of “magical”, top-down solutions, which can lead to the reproduction of hegemonic narratives, and presenting some social-technological choices as universal to the detriment of already existing experiences, local knowledge and multiple forms of communication and bond.<sup>22</sup>

In this context, we bring our experience around the field of feminist infrastructures – which includes servers, networks, cables, antennas, software, hardware and the use of the electromagnetic spectrum, protocols and algorithms. They are also made of spaces, temporalities, priorities, relations between humans and machines and agreements that can be (but not always are) established, verbalised, visible and renegotiated when necessary.<sup>23</sup> Feminist infrastructures, therefore, are not only electronic materiality

<sup>21</sup> In this sense, throughout the article, the reflections of the local community, the women of our group and the bibliographic references in which we rely on are presented in this same perspective and intertwined. It seems trivial and basic to point this out in the field of feminist research, but in the face of hierarchical practices that remain in research, we find it important to record. See also: Haraway, D. (1988). *Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective*. *Feminist Studies*, 14(3). 575–99. <https://doi.org/10.2307/317806>; Ribeiro, D. (2017). *O Que é Lugar de Fala?* Letramento.

<sup>22</sup> Zanolli, B., Jancz, C., Gonzalez, C., Araujo dos Santos, D., & Prado, D. (2018). Op. cit.

<sup>23</sup> Prado, D. (2019, 4 November). Op. cit.



produced by women and non-binary people, but have also inherently made a commitment to rethinking through other perspectives: priorities, organisation of space and time, agreements, relationships between people and groups, and even between humans and machines. We also bring our experience with popular education, believing that it could bring synergy with community networks and enhance social justice processes<sup>24</sup> by proposing a collective and shared approach to learning experiences and knowledge building. Considering these backgrounds and perspectives helps us to put the encounter in the methodological spotlight once it emerges as a key element to the research.

Guided by these references and recognising that the practice would bring new challenges, we have sought to outline a methodology that could provide the realisation of collective reflections throughout the project. We agreed that we would always do a preparation stage prior to each field visit, a period of immersive workshops in the community, and a reflection on the immersion on our return from each visit, which would inform the preparation of the next visit and so on.

The option for immersion for longer periods and the realisation of a need for more visits to quilombo Terra Seca arose from the conversation with a local leader, Nilce de Pontes Pereira dos Santos,<sup>25</sup> during the preparation of the installation process of the community network. Nilce indicated to us that the community faced a challenge related to temporality in this type of partnership with research projects before. Specifically, Nilce found an issue with the lack of time researchers tended to stay in the territory to establish collaboration in rural communities, where

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<sup>24</sup> Araujo, D. (2021, 30 March). Op. cit.

<sup>25</sup> Nilce de Pontes Pereira dos Santos is the founder of the Association of Quilombos Remnants of Riberão Grande and neighbourhoods of the city of Barra do Turvo, and representative of the National Coordination of Quilombola Communities (CONAQ) within the National Agroecological Articulation.



the relationship with time is different from that of large cities. In a preparatory conversation for our first trip to the quilombo, Nilce expressed enthusiasm with the idea of the community network in the region, but also expressed some concerns about the process: 1) she complained about some researchers from Brazilian universities who went to the territory, collected data and never returned; 2) she expressed concern with the appropriation of local knowledge by people associated with research institutions; 3) she pointed out the issues with different temporalities between the field and the city; and 4) she also expressed her concern about security issues in the use of the new network, especially in relation to young people using digital networks.

After the initial talk with community members and SOF partners, we considered that we should maintain a mixed methodological perspective, combining qualitative and quantitative approaches. Agreeing that we should prioritise collective activities and participatory processes rather than individual approaches for data collection, such as interviews. Additionally, we did research, seeking other academic references about the quilombos in this region to avoid repeating questions that other research projects might have already asked before. Between the beginning of the project and March 2020, we followed this methodology and went to the quilombo Terra Seca five times. We stayed for between three and five days in each visit, performing immersive processes of knowledge exchange towards the collective installation of the community network.

In these immersions,<sup>26</sup> we held several workshops on technopolitics and communication. We also facilitated moments where community residents were able to collectively dream about the future of the community

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<sup>26</sup> For reasons of format and scope of this article, we will not describe in detail the methodology of each immersion performed, but this is a point that can still be better explored and shared in future developments of this project.

network. Their expectations around the development of the community network returned as follows:

- To help young people with schoolwork.
- Be a tool for the network of women farmers to communicate better and organise their economic activities.
- Assist in the organisation and scheduling of multiple meetings that take place in the community.
- Establish a server with a collection of cultural and artistic materials such as movies, books, games and other media downloaded from the internet.
- Share educational materials and videos on agroecology (e.g. how to manage pests).
- Reflect on how secure the internet platforms they mostly use are, including what risks they are most vulnerable to and how to better navigate the internet.
- Promote discussions and knowledge exchanges on social, political and economic issues that transverse the territory and affect their population.

Together with the community, we installed a bamboo tower, a wooden tower and three nodes from a mesh network using LibreMesh<sup>27</sup> installed on accessible CPE antennas and standard routers. So far, they collectively share the signal of a satellite connection between around 15 families. It is not the fastest connectivity, nor perfect for their needs, but it is an important start. In addition, there is a Raspberry Pi<sup>28</sup> with a feminist version of Pirate Box,<sup>29</sup> a Fuxico,<sup>30</sup> which performs the function of a small local server, operating as a repository for documents and media exchanges, forums and a local chat service.<sup>31</sup>

<sup>27</sup> <https://libremesh.org>

<sup>28</sup> <https://www.raspberrypi.org>

<sup>29</sup> <https://piratebox.cc/faq>

<sup>30</sup> <https://web.archive.org/web/20200913031449/http://redeautonomafeminista.org/fuxico/>

<sup>31</sup> There is a desire to install a more robust server to have more services available on the local network, operational without going through the meter of data packages provided via satellite, but it was not possible to reach this stage with the delays caused by the pandemic.



In an effort to contextualise our work from a feminist infrastructures perspective, it is important to underline that for us, the network's infrastructure is just one of its aspects. With each meeting, gathering and exchange of affection and knowledge between people, the human infrastructure became even more important than routers and wires. This was heavily affected by the pandemic.

Due to the health crisis of COVID-19, we had to refrain from going to the community for many months. We managed to go once again in January 2021, completing six visits in total.<sup>32</sup> In the last trip, we had to adapt our methodology. Instead of the processes of collective conversations and reflections from five previous visits, we ended up carrying out semi-structured interviews with people who participated in the process, aiming to gather elements for a joint evaluation of the trajectory.<sup>33</sup> The situation in Brazil, however, soon worsened again and we were unable to complete all planned visits.

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<sup>32</sup> In this visit, during the pandemic, we developed a safety protocol based on the guidelines from health authorities – which allowed for a smaller group of people to go, provided that all people who would be sharing accommodation wore N95 masks and were tested for COVID-19. We were no longer able to have collective meals, and we suspended immersions to avoid many people gathering. We also avoided entering the residents' homes, limiting our close contact with the people living in the territory.

<sup>33</sup> We agreed that these interviews for evaluation would be anonymised and brought forward over the following topics and summaries. In general terms, the community praised the aspect of building the community network together. People said they felt comfortable participating in the immersions and did not report problems that would have kept them away from the spaces created in this project. However, the pandemic itself and the long periods of suspended activities was pointed to as a negative aspect. In our perspective, working with feminist infrastructures remains a challenge for community networks.

## Intersectional practices and women's participation

Although we kept to our commitment of gender balance among the group mobilised through the immersions,<sup>34</sup> this was a challenging goal for several reasons, which we sought to discuss with the people of the community in the evaluation interviews.<sup>35</sup>

The following table summarises the participation of women, men and children in the workshops:

	Sept/19	Nov/19	Dec/19	Feb/20	Mar/20
Women	28	7	11	10	14
Men	8	6	9	13	7
Children	10	2	3	5	0

What was most pointed out by community members was the great out flow of young women (between 15 and 25 years old) from the territory, who search for work and more opportunities in the nearby cities where there is greater demand for domestic work. They also leave the countryside for the city to study and/or to discover how life could be outside their community. Among those who remain, women

<sup>34</sup> If on the one hand, women are more often removed from places of technical knowledge and interaction with such infrastructures, a task force becomes explicitly necessary to break with the norms that reinforce this distancing. On the other hand, we must not understand feminist as synonymous with "made by women". Therefore, in this action-research we have considered an effort in both directions: creating an experience that is both welcoming to women, and at the same time brings the feminist perspective into mixed groups that involves all those in the community who want to participate.

<sup>35</sup> Our initial idea was to share our research reflections with the community at the end of the process of installing the network and discuss issues like these dynamically, following the model of immersions we performed. However, because of the COVID-19 pandemic, completion of the installation of the community network was delayed, and to safeguard all those involved, we had to cancel the collective meetings. Having to change our strategy, we then carried out semi-structured interviews with people in the community to capture their reflections in March 2021. As an additional research outcome, we are producing a zine with the reflections of gender and race to send to the community. We hope that we can talk about these reflections with the community as soon as sanitary health conditions in Brazil allow, even if this is done after the closure of this action-research project.

tend to have more responsibilities in their homes with caregiving and housework. There are, in some cases, gender stigmas where parents and husbands do not like women being out of the house and with people they do not know.

It is necessary to remember that, as in other spheres of social life, we are faced with unequal gender roles even in territorialised communities,<sup>36</sup> and this unbalance will have specific impacts in each territory. Having recognised some of these challenges from the beginning of the project and by learning more from the community members, throughout development we have tried specific actions to face them such as:

- We performed the immersions at a time compatible with the school and welcomed children's attendance, so that the people responsible for their care could be present too.
- We offered collective meals during the meetings, so that a family's food preparation would not become an activity that clashed with our workshops (and instead collective meals could generate income for the women in the community who could provide their organic products and services to our project).
- We prioritised being a group of women facilitating the project, hoping that our bodies could help to break any possible idea that the community networks might be an exclusively male activity.
- We also adopted what we call the "coffee" method, taking the time to go from house to house in the community on the day we arrived, so that everyone got to know us better and we could speak to the women leaders and ensure everyone is invited to join us.
- We arrived in the territory through the partnership with SOF and the women of RAMA, which helped to locate decisions

<sup>36</sup> Bidwell, N. J., & Jensen, M. (2019). Bottom-up connectivity strategies: Community-led small-scale telecommunication infrastructure networks in the global South. APC. [https://www.apc.org/sites/default/files/bottom-up-connectivity-strategies\\_0.pdf](https://www.apc.org/sites/default/files/bottom-up-connectivity-strategies_0.pdf)



about the future of the community network in the group of women from the beginning. Because of the link to SOF, they were always involved in decision-making processes – even though they were not all present in every socio-technical workshop. During the project, they assumed the position of guardians of their community network by knowing where the antennas are installed, where their signal reaches, how to communicate where maintenance is needed and do simple troubleshooting. They are also responsible for sharing the network password with families and preventing outsiders from going there just to use their internet.

Although they did not guarantee the majority of women in attendance we were hoping for, these actions seemed to have worked to some extent once we managed to keep the proportion of women and men more balanced than in previous processes of community network installations we follow in Brazil. We were also able to get the women from the farmers' network to assume the position of guardians of their community network. They were always involved in decision-making processes – even though they were not all present in every socio-technical workshop. An understanding of the multiple roles needed to keep a community network up and running became essential to engage people with different interests and skills in the process. Our aim was to make everyone feel part of the results achieved – not just those who had learnt in depth how to set up the routers, for example.

We can conclude from our experience that the feminist process is a constant effort that involves men and women and diverse bodies. Keeping in mind that being a feminist is neither a physical condition nor a permanent state, being a feminist is a constant search for more balanced relationships and ethical practices. It is a journey full of tensions and conflicts. It is important to highlight, however, that more than reaching a bulletproof process or final result, we were looking at building safe and welcoming processes and spaces for

different people, avoiding the naturalisation of inequality. We wanted to be active when differences are, instead of being respected and valued, mobilised to produce discrimination and remove certain social groups from a place of producing technologies and knowledge.

This has meant looking at conflict as an opportunity to break silence or invisibility around certain norms. Based on this encounter, our own experiences, feminist references<sup>37</sup> and popular education,<sup>38</sup> we consider contradictions and conflicts not as something that needs to be “resolved” or “stabilised”, but as potential for collective reflection of different places of speech<sup>39</sup> that can produce relevant community network projects and research. A specific tension that became a trigger for important discussions in our project was the racial issue, which we will address in the following section.

Another concrete example from this experience happened on one occasion where a teenager expressed that we should not invite young women, in particular, to work on electrical connections, because “they would be clumsy”. This led us to have a group conversation about gender and technology, where as facilitators, we shared our own experiences of gender and technology-related biases

<sup>37</sup> Our main references come from feminist studies in science and technology and intersectional and Black feminism, especially from the following authors: Collins, P.H. (2017). Op. cit.; Crenshaw, K. (2002). Op. cit.; Haraway, D. (1988). Op. cit.; Haraway, D. (2000). *Manifiesto Ciborgue. Ciência, tecnologia e feminismo-socialista no final do século XX*. In *Antropologia do Ciborgue: As Vertigens do Pós-humano*. Belo Horizonte, Autêntica Editora. <http://vidaboa.redelivre.org.br/files/2018/03/ANTROPOLOGIA-DO-CIBORGUE.pdf>; Harding, S. (1998). ¿Existe un Método Feminista? In *Debates en Torno a una Metodología Feminista*. Universidad Autónoma Metropolitana-Unidad Xochimilco; hooks, b. (1994). Op. cit.; Ribeiro, D. (2017). Op. cit.

<sup>38</sup> hooks, b. (1994). *Teaching to Transgress: Education as the Practice of Freedom*. Routledge.

<sup>39</sup> In dialogue with the theoretical legacy of Black women and bringing the perspective of the place of speech, the Brazilian philosopher Djamila Ribeiro emphasises the importance of locating components that are understood as a universal condition. for example, and in particular, discussion around race and racism, which cannot only be done by Black people. See: Ribeiro, D. (2017). Op. cit.



and how it can undermine women's self-confidence. In addition, we specifically called women to do all the electrical connections from that day on, to be sure that we were applying in practice what we were speaking in theory. What could have been regarded as a problem became instead an important conversation, rooted in facts and local experience. For this to be possible, it was necessary to reconcile aspects of preparing the immersive processes with an ability to stay open to the unexpected and what emerges from encounters with community members when we adopt a process of collective learning.

In other words, it was necessary to listen and keep plans open to unforeseen developments, which are only revealed in the territory. Even the initial dialogue with Nilce de Pontes Pereira dos Santos had deeply transformed this project process, and without her background and knowledge, this journey would not have been the same.

On another occasion in our last trip to the quilombo before the pandemic, we invited a cisgender man to hold a workshop on bamboo treatment. This wood is available in the territory, and it was a potential alternative for building the towers necessary for the installation of antennas in a region with a challenging topography for this type of infrastructure. On one hand, the bamboo workshop was a huge gain for the project, as it raised a lot of interest among the people of the community and represented a link between local resources and technologies and new digital technologies. On the other hand, we noticed by the mere fact of appointing a cisgender man as a temporary facilitator changed the dynamics with some of the older men in the workshops. Almost immediately, they began to regard him as their main interlocutor for the entire project during that workshop – even though his contribution was specific to the bamboo tower. This particular episode reinforced between us the importance of having more women in places of facilitation, including technical. It also flagged the importance of reflection around masculinities in spaces of facilitation.



Finally, although our research employed an intersection approach at the core of gender and race relations, it seems important to register that there is a generational aspect that also stood out which can be addressed in more depth in future projects. In the process of this network, we noticed that some of the most assiduous and interested participants were young people between 18 and 25 years of age. These were people who had already left the community to work outside, but who returned intermittently (due to the need to work and earn money for their families). Even though they do not plan to live in the community, they are really invested in the network working, so that they can talk to their families and make their lives more comfortable. Almost no women of the same age group lived in the community, and the adolescents did not have much interest in the workshops. The women who were most involved with the project were under 15 years of age or elders.

It is also important to consider that we have generally had to deal with a high turnaround of people participating in each workshop. Although from the very start we had the issue of having to go back to the beginning and repeat activities in consideration to new members, this actually turned out to be positive. By repetition, those who had already participated spent time helping newcomers and sharing their growing knowledge. In general, the involvement of as many people as possible – even at different levels of attendance and depth of participation – seemed important towards creating a sense of collective appropriation of the network by the people of the territory – something that may become important to their continuity and resilience beyond this project.

## 21 | Race and racism

Another important aspect of our process to consider through an intersectional lens is the necessity of not ignoring or erasing the differences between women. Here it seems crucial for us to highlight that working with women in community networks must not become a shortcut to ignoring the differences between women, especially with regards to race, ethnicity, class and skills.

Once we arrived in the territory, the only Black woman in our group, Daiane dos Santos Araújo, questioned how we felt about being a group composed mostly of white women, who travelled from the city to the quilombo and approached a territory that is mostly a Black population. From this questioning, our group rethought how the issue of race should be addressed in our project. We recognised the need for it to be thought of in more depth with multiple layers. In this sense, we considered two levels of reflection. On one hand, Daiane dos Santos Araújo built a reflection on race relations from the condition of being the only Black woman in our initial group, as would be common in many spaces of free technologies in Brazil. On the other hand, white women of our group also needed to recognise themselves as racialised and to act in the face of the privileges on which their race is structured – and here the discussions of whiteness emerged as fundamental. At this point, we separate the “we” voice adopted so far in the article to bring these reflections from these two different places.

In her reflection on race,<sup>40</sup> Daiane points out that, generally, the places that receive proposals for community networks are racialised territories, such as quilombos, Indigenous communities and urban peripheries. The construction of community networks is tied to the technological formation that already exists there. Yet the presence in the production of digital technologies today is mostly white and male.

<sup>40</sup> This reflection was materialised through a consultancy on racial issues provided by Daiane dos Santos Araújo for this project.



Not only the presence, but the whole thought process of digital technologies and techniques are represented from a Eurocentric and North-American perspective. However, discussions about race are not yet seen as central to most projects on community networks – and this silence on such a latent issue in this field may represent an echo of structural racism in Brazil. This scenario was indicated by Daiane as one of the key factors that made her rethink her involvement in the field of community networks even before we started this action-research project.

Furthermore, she indicates that being in the quilombo – symbolically and precisely a territory associated with the history of Black resistance in Brazil – made her reflect and want to remain in the community networks' spaces. She saw in them opportunities to build social justice, considering that through inconclusive and disputed processes, there is the possibility of intervention and the practical exercise of freedom. According to Daiane, the willingness to act in the construction of an egalitarian society presupposes putting ourselves in constant review, making it possible to interfere, decide, compare and break through. That indicates the need to transform our human and digital connections in a way that is in fact welcoming to non-white people.

If we think, like Daiane, that many Black people can feel silenced and distanced from spaces of interaction with digital infrastructures and technologies, how collective can the installation and management of autonomous and community networks actually be? And why aren't white people, who represent the majority in this field in Brazil, thinking about racism from their own position?

It was then that we mobilised the concept of whiteness<sup>41</sup> as a fundamental pillar of our process, being a mostly white

<sup>41</sup> Schucman, L. V. (2014). Sim, nós somos racistas: estudo psicossocial da branquitude paulistana. *Psicol. Soc.*, 26(1), 83-94. <http://dx.doi.org/10.1590/S0102-71822014000100010>



group. The notion of whiteness helped us to understand this position where the subjects who occupy it are systematically privileged with regard to access to material and symbolic resources and as part of a process initiated through colonialism and imperialism, which has remain sustained and preserved. We believe that reflections on whiteness can and should be mobilised to challenge a general perception among white people that the only ones belonging to a race are non-whites. This concept pointed us to the need for white people to further to raise awareness of their race by promoting changes in their micro positions of power and activity. In addition, there was a need for white people to act in the general framework and to engage with the structural change of cultural values so that whiteness, as a normative place of power, could become ethnic-racial identities where racism is not a prop that supports them.

We then asked ourselves what this might mean for the people involved in building and strengthening community networks? In Brazil, most projects that address connectivity through a search for autonomy are mainly driven by white men, although they are implemented and occur in territories composed mostly of Black and Indigenous people. It seems to us that just as we had not been incorporating the notion of whiteness as a fundamental discussion, other groups may not be doing so either. This made us understand that practising intersectionality means looking at local experiences and not reproducing structural silences of society, even though this is not a linear process, but full of twists and turns. Therefore, from our experience, whiteness becomes a necessary and important concept to explore in order to shake up those engaged with building a community network.

## The constancy of the unforeseen

At the beginning of this project, we were aware that we would need to remain open to developments that we would only know once we were working together with the community. However, we could not have imagined that dealing with the unforeseen would have been such a challenge and that our methodologies would be completely rethought in the face of the global COVID-19 pandemic, which was aggravated in Brazil by the erratic actions of a far-right government.

If in one sense the pandemic prevented us from continuing the immersive and collective processes in the territory, in another sense, it stressed the need to connect the quilombo Terra Seca community network to the internet. During the COVID-19 pandemic, essential activities, such as school and access to emergency financial assistance, moved to an online environment as a consequence of distancing measures and social isolation. The health emergency scenario made it more difficult to plan because we did not know whether health conditions would allow our plans to be implemented. We also experienced the emotional impact of the situation on top of a context of uncertainty that paralysed the project activities for some months.

In the end, we made some adjustments in order to proceed. We changed the collective dynamic to occasional trips to the quilombo in reduced teams and added a sanitary protocol, with the aim of finishing the installation of the network and ensuring their internet connection. We did semi-structured interviews to evaluate the process. We considered other ways to share outcomes of the action-research with the community, such as the production of three zines (a small technical tutorial recapping the process, an online safety guide and one on gender and race reflections gathered in this article) and a video of the community members' reflections about the process in their own words.<sup>42</sup> Through

<sup>42</sup> The video is still pending and should be finalised as soon as it is possible to return to the territory.



local communication and virtual spaces, we sought new ways to promote meetings and knowledge exchanges, while we were further impacted by a growing tension caused by the pandemic worsening in our country. This period made us incorporate new questions into our reflections: how can we think about territorialised networks that flourish from encounters with different people, such as in the experience of this project, in times where being together can be a health risk? How will the pandemic impact the future of community networks? We are being reshaped by a new context and responding by finding different ways of dealing with specific contexts. Multiple answers for emerging challenges can arise.

As people living in big urban centres, our presence in the quilombo could represent a risk for the community members, who live in less densely populated areas and also – fortunately – had priority access to the vaccine in our state. Our bodies and movements should be observed and regulated considering the emerging health issues and their social impacts. The pandemic brought practical implications for the project. We had to redesign the project's activities, which impacted its timeline and budget. The flexibility and support from the FIRN network were fundamental here, as it allowed us to navigate in challenging times. Although this reflection will not be explored further in this article, we found that flexibility in facing the unforeseen and responding to local developments is also vital from the granting and funding perspective.

In the evaluation interviews we made at the end of the project, we asked about the best and the worst aspects of this process. The most prevalent answer we received was that the pandemic was the worst thing. The social isolation measures meant we could not access the spaces we used for engaging in in-depth dialogue as well as carrying out participatory processes.

We also encountered rewarding unforeseen points during this challenging moment. Almost immediately after we had connected the mesh network with an internet link, we



received so much positive feedback from the community that we were able to reestablish more robust communications with them. Women in their forties who were used to going to the highway surrounds to fish 3G or 4G signals to be able to do their commerce activities related to agriculture (such as receiving orders and specifics of the delivery process), could now do that from the comfort of their couches. They even sent us audio notes expressing happiness about it. In addition, internet connectivity has enabled agricultural women to participate in online political events and webinars regarding the protection of their way of living and the nature that surrounds them, which was not possible previously. This connection also allowed us to hear from them in online events, which connected around 15 families. This could have an impact on broadening community interaction and increasing relationships between families. These nodes support the ability to insist on existing and share achievements and joys even when we are struggling in so many ways.

At her final evaluation interview, one woman from the community said that because of the community network, she felt that they “have the right to speak as well because until that moment we were only listeners. And with the inclusion in digital media, which are being built, we hope to have more opportunities to put our needs and demands beyond the community.”

We also received positive feedback about the knowledge gained from the community network. Those women know where the antennas are installed and where their signal reaches as well as how to do simple troubleshooting and identify where maintenance is needed. They are also the ones responsible for the password management. Because of their role, the community, including the men, tend to see and value these women as being responsible for bringing connectivity to their territory and keeping the decision making around it.

## Some final considerations to not conclude

In order to share some final considerations from the field of feminist infrastructure, we would like to go back to a question that moved us from the beginning: if “feminist” does not mean made by women, what does it mean?

For us, it means working by using listening skills and keeping ourselves open to what only the localised experience and specific encounters can offer. The intersectional lens and references of popular education have also helped us to look at tensions and conflicts not as something that needs to be stabilised, but as an opportunity to open important dialogues between ourselves and with the community members. It has also meant seeking to build physical and digital environments that consider multiple interests and needs from an intersectional perspective that, when collectively constructed by different groups and bodies, is in fact capable of bringing together different groups and bodies in a welcoming way.<sup>43</sup>

In countries marked by inequality, like Brazil, it is very common in communities where the internet and other forms of connectivity are absent, for there to be a lack of women’s rights, which can be further aggravated by a combination of inequalities, such as class, race and age, among others. This leads us to the need to address the intersectionalities of access, because otherwise connectivity can, as a result, become a tool that mainly benefits white cisgender men and/or reinforces patriarchal and colonialist values and inequalities. Community networks carry with them the potential to recognise, value and strengthen other ways of living, learning and other models of development. It seems fitting that discussions in this field add to the accumulation of other fields that, long before the internet, already focused on

<sup>43</sup> After all, the fact that these communities strive for better living conditions cannot mean an expectation of purity in relation to them or of romanticising expectations. As feminist researchers and activists, we need to remain critical and reflexive regarding our own as well as others’ practices of domination and the unequal parts of privilege and oppression that make up all positions.

ways of breaking with imperialism and colonial legacies. In our process, intersectional feminism, popular education and race discussions, including whiteness, have been key.

Finally, the pandemic brought new implications for community networks and for our experience. It highlighted that reducing connectivity inequality with an intersectional perspective and promoting autonomous access is even more urgent now, despite the emerging challenges. Furthermore, the field of feminist infrastructures helped us keep in mind that technologies are not neutral, but are also not limited to the uses and interests of those in power – there will always be escapes, hacks and multiple ways of living and doing things. We are therefore invited to act in a field marked by disputes where the encounters, the dialogues and the multiplicity of voices will be decisive to challenge norms and seek for collective strategies to overcome historical and new barriers.

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Find out more about this project at [bit.ly/feminist\\_infrastructure\\_cn](https://bit.ly/feminist_infrastructure_cn)

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