

# Cooking up changes: the act of cooking as a tool for facing the challenges of the Anthropocene

## Cozinhando mudanças: o ato de cozinhar como ferramenta de enfrentamento aos desafios do Antropoceno

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## Abstract

Cooking encompasses cultural, environmental, social, economic, and political dimensions, as well as composes the activities contained in a food system and promoting dialogues and transformations. This study aims to describe and to analyze everyday elements related to cooking and its relationship with the food system based on the experience of a group of female urban farmers in the east side of the city of São Paulo. Body-map storytelling was used, a creative visual research method, in which, by drawing the participant's body contours, visual and oral data were produced on the meanings of cooking. Seven women participated in this study, who develop actions related to agriculture and cooking. The generated data were analyzed using thematic analysis. Cooking proved to be a connector from the field to the table, strengthening and being strengthened by the practices of urban and peri-urban farming, and is an interesting tool to promote health, contemplating biopsychosocial well-being in line with issues of social, economic, and environmental sustainability. Understanding this connection enables to support public policies to promote sustainable food systems and facing the challenges of the Anthropocene.

**Keywords:** Sustainability; Food Systems; Cooking; Environment; Public Health.

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## Resumo

O ato de cozinhar engloba dimensões culturais, ambientais, sociais, econômicas e políticas, bem como compõe as atividades contidas em um sistema alimentar, sendo uma ação promotora de diálogos e transformações. Este estudo objetiva descrever e analisar elementos cotidianos relacionados ao cozinhar e suas relações com o sistema alimentar, a partir da experiência de um grupo de mulheres agricultoras urbanas da zona leste da cidade de São Paulo. Foram utilizados os mapas corporais narrados, método de pesquisa visual criativo no qual, por meio da realização do desenho dos contornos corporais dos participantes, foram produzidos dados visuais e orais sobre os significados do ato de cozinhar. Participaram do estudo sete mulheres, que desenvolvem ações relacionadas à agricultura e ao cozinhar. Os dados gerados foram analisados por meio de análise temática. O ato de cozinhar se mostrou como um conector do campo à mesa, fortalecendo e sendo fortalecido pelas práticas da agricultura urbana e periurbana, sendo uma interessante ferramenta para promover saúde, contemplando o bem-estar biopsicossocial em consonância com questões de sustentabilidade social, econômica e ambiental. Compreender tal conexão possibilita apoiar políticas públicas para a promoção de sistemas alimentares sustentáveis e o enfrentamento aos desafios do antropoceno.

Palavras-chaves: Sustentabilidade; Sistemas Alimentares; Cozinhar; Meio Ambiente; Saúde Pública

## Introduction

Assuming that humanity is experiencing the Anthropocene epoch, in which humanity's actions globally affect the Earth, resulting in changes and degradations of natural resources. The great population growth, associated with industrialization and technological advancement, exerts significant global pressures on the environment, including extreme weather events and changes in land use and the integrity of the biosphere, which are associated with the loss of biodiversity (Artaxo, 2014). The Anthropocene context is impacted by and impacts the Food Systems and, consequently, the elements that compose it (environment, people, infrastructure) and the activities related to them, such as the means of production, distribution and consumption of food.

Food is aliment transformed not only by physical changes, but also by social and cultural representations (Lima; Robinson; Farias, 2015). For the French anthropologist Claude Lévi-Strauss (2004), being able to cook food and modify it from raw to cooked was part of the process of the human's transition from the biological to the social condition. The author establishes, in his study, the difference between aliment and food: the first satisfies humans, supplying their physiological needs, while the second is the transformed aliment, which can carry several meanings.

This difference is also established by the Brazilian anthropologist Roberto Damatta (1987), who studied Brazilian food and created the idea that not all aliment is food, since aliment is what nourishes and keeps people alive, while food is a form of expression of identity. Thus, cooking is a form of communication, in which societies can express their structure, characterizing and differentiating peoples (Lévi-Strauss, 2004).

Cooking involves several symbols and meanings, which include, other than techniques and skills, self-donation (Ferreira; Wayne, 2018). It is a legitimate social practice, which can function as a creative space of everyday life and enables creation by infinite possibilities of combination and preparation methods. Cooking is also an action by which one can preserve the past or innovate

(Diez-Garcia; Castro, 2011). In this way, cooking becomes a way of expressing immaterial culture. The ways of making and consuming food work as a field of production and verbalization of knowledge and flavors (Meneses, 2013). The exchange and multiplication of knowledge that permeates cooking can enable more autonomy and empowerment for people (Diez-Garcia; Castro, 2011). The process of sharing this information is a mean to preserve the traditional and local peoples knowledge, which is a process that has been weakened throughout generations (Brasil, 2014).

Recommendations related to cooking can be found in Brazilian official documents, such as *Marco de Referência de Educação Alimentar e Nutricional para as Políticas Públicas* (Brasil, 2012) (Reference Guide of Food and Nutritional Education for Public Policies) and *Guia alimentar para a população brasileira* (Dietary Guidelines for the Brazilian Population) (Brasil, 2014). These documents contribute to the implementation of the guideline for the *Promoção da Alimentação Adequada e Saudável* (Promotion of Adequate and Healthy Eating) (PAAS), which is part of the *Política Nacional de Alimentação e Nutrição* (National Policy for Food and Nutrition) (PNAN) (Brasil, 2013). The PNAN (Brasil, 2013) aims to improve the conditions of food, nutrition, and health of the Brazilian population and has, among its principles, respect for diversity and food culture, as well as the strengthening of the autonomy of individuals. The PAAS guideline, which composes this policy, is a set of strategies that enable individuals and groups to carry out dietary practices that are appropriate to biological and sociocultural aspects and addresses the environmental sustainability (Brasil, 2013). In its practice, cooking can encompass cultural, environmental, social, economic, and political dimensions. It is a promising space to promote dialogues, reflections, learning, and transformations.

In this process, cooking provides individuals and communities with diverse and meaningful connections, for example with whom and how makings are shared, assuming an essential role as a link between the field—where the aliments came from—and the table—where the food is served. In this way, cooking is part of a broad path of

the aliment, from field to table, which has several interfaces with sustainability.

Therefore, this study aims to describe and to analyze everyday elements related to the act of cooking and its relations with the food system, from the experience of a group of female urban farmers in the east side of the city of São Paulo.

## Methodology

In this study, a qualitative approach was used, so that several elements were observed simultaneously in a small group of people, allowing for the production of knowledge on the experience of cooking (Victoria; Kanauth; Hassem, 2000) from a group of female urban farmers. The work was carried out with the *Mulheres do GAU* (Women of GAU—Urban Agriculture Group), who are mostly northeastern migrants who develop their activities in a plant nursery, the Viveiro Escola União de Vila Nova. Located in the east side of the city of São Paulo, the Viveiro, 2500m<sup>2</sup> space, was founded in 2009 and is a space coordinated by the Companhia de Desenvolvimento Habitacional e Urbano (Housing and Urban Development Company). The participation and daily coexistence of women in the maintenance of the Viveiro led to the creation of Women of GAU, who find a potential resource to contribute to their history that of the neighborhood in this place.

These women are responsible for the maintenance of the Viveiro, by actions such as planting, cultivation, harvesting, and agroforestry management. The crops are free of pesticides and chemical compounds, and fruits, vegetables, flowers, and unconventional food plants (UFP) are grown in the space. To make the Viveiro an income-generating facility, the Women of GAU launch the initiative to produce food for breakfasts and lunches, using ingredients harvested on site. In this way, they started a new activity. Other than taking care of the market garden, they included the act of cooking as one of their activities. They propose to provide, by their makings, health, care, and some of their stories to people.

Currently, the Women of GAU are divided into two groups: market garden and kitchen. The market garden group is responsible for growing and selling the food they plant. In their practices, the women

of this group use agroecology and permaculture techniques, growing vegetables, medicinal herbs, fruit trees, and UFP. After harvesting, these aliments are used by the members in their food preparations, as well as sold to the local community, in agroecological fairs, events, among others.

The kitchen group works in an environment with a pantry to store food and equipped with a refrigerator and microwave, as well as conventional and industrial stoves. These women use the products of the market garden to make different recipes, such as breads, juices, and jams, which are later marketed in the community, at farmers markets, events, or made-to-order. Other than the sale of these products, they also offer, as a service, lunches at the Viveiro and coffee breaks at events. During the COVID-19 pandemic, the kitchen group began selling packed lunches, which were purchased by surrounding non-governmental organizations and distributed to socially vulnerable people. However, even with a division, women from different groups help each other when needed. Furthermore, as a collective, they jointly carry out activities, such as experiences, workshops, and meetings related to themes of the market garden and the kitchen, creating a space to learn and to exchange with the local community and with visitors from elsewhere.

Seven women, who were actively engaged in the activities of the collective during the period of fieldwork (October and November 2020), agreed to participate in the study. They were aged from 43 to 69 years, all mothers who live in the east side of the city of São Paulo and migrated from the Northeast region, six from Bahia and one from Pernambuco. In accordance with ethical precepts, which aim to preserve participants' identity, their real names were replaced by PANC names. Thus, the participants are indicated as Capuchinha, Feijão-guandu, Hibisco, Mandacaru, Ora-pro-nóbis, Peixinho-da-horta, and Tomate-melão. This project was registered and approved in the CEP, under opinion No. 4,285,942, on September 18, 2020.

To generate the data analyzed in this study on the meanings of cooking, body-maps storytelling were used. The body-maps are a method of creative visual research, in which, by the drawing of the body contours of the participants, visual (body-map) and oral (storytelling) data are produced (Conceição; Magalhães; Gastaldo, 2021). In other words, this method use drawings, paintings, and other art-based techniques to visually represent aspects of people's lives and the world they live in (Gastaldo et al., 2012). This method enables the expression of feelings, experiences, and meanings, which stimulates reflection, promoting the production of good-quality data (Gastaldo et al., 2012). Thus, the methodology involves the participants as co-producers of knowledge, presenting a potential to decolonize the production of knowledge in the health sciences (Gastaldo; Rivas-Quarneti; Magalhães, 2018).

The script of this study was elaborated based on the model available in the *Pesquisa através de mapas corporais narrados* manual by Gastaldo et al. (2012). The original structure, including the number and length of the meetings, was maintained, and the themes of each meeting and its guiding questions were adapted to meet the study aim. The script was structured to contemplate three individual, one-hour long meetings for each participant, held weekly, with the presence of the researcher.

To create the map, rolls of white plotter paper 914cm × 50m, crayons, colored pencils, graphite pencils, eraser, scissors, and glue were used. Participants could ask the researcher to print an image to be taken to the subsequent meetings, which occurred in the creation of some maps. The meetings' audios were recorded via smartphone, with the consent of the participants, for later analysis with the map.

The meetings were held at the Viveiro Escola União de Vila Nova. The body tracing was made on the dirt floor of the facility, using paper rolls and other available materials. After drawing the body, maps were arranged on a large table and build according to the semi-structured questions from the script, showed in Chart 1 (for the detailed version of the script see Rigote (2022)).

## Chart 1 – Script summary

1 <sup>st</sup> Meeting
Exercise 1: Draw the body. Exercise 2: Path to join the GAU. Homework: To create a personal symbol and slogan.
2 <sup>nd</sup> Meeting
Exercise 1: Personal symbol and slogan. Exercise 2: The activities at GAU and the act of cooking. Exercise 3: Self-portrait. Homework: To prepare a message for the others.
3 <sup>rd</sup> Meeting
Exercise 1: Message to the others. Exercise 2: Body scanning. Exercise 3: Support structures. Exercise 4: Drawing the future. Exercise 5: Participant's storytelling. Final exercise: Decorating/finalization of the map.

Fieldwork was conducted during the pandemic, in October and November 2020. The meetings were held after the city of São Paulo reached the phase of partial “opening” (with fewer restrictions) of the São Paulo Plan, which was the State Government’s strategy for coping with COVID-19 (São Paulo, 2020). The research took place in an open and airy place and, in the meetings, only the researcher and the interviewee were present, following health authorities’ recommendations, such as distancing, using hand sanitizer, face masks, and face shield (provided by the researcher). Notably, all people involved in this phase (participants and researcher) felt safe and comfortable to participate in the research. After each meeting, all materials were sanitized with alcohol sanitizer.

According to Gastaldo et al. (2012), the final product of the body-mapping process is a mapped history that bares three elements: (I) testimony, that is, a brief story narrated in the first person; (II) body map; and (III) legend to describe the visual elements of the map. The analysis of the body-map must be integrally done, including not only the newly created map, but also the process of creation, along with the testimony and the legends. The analysis did

not aim to psychologically evaluate participants, but to obtain an insight into certain aspects (Gastaldo et al., 2012). In this study, the themes and categories of analysis were elaborated based on the transcription of the meetings’ recordings, which were transcribed and analyzed in an inductive and data-driven way, without trying to fit them into a pre-existing coding (Braun; Clarke, 2006).

Thematic analysis is a useful and flexible method for qualitative research. For this study, the six phases of thematic analysis proposed by Braun and Clarke (2006) were followed.

1. **Familiarizing with data** (transcription, reading and rereading of data, pointing out initial ideas);
2. **Generating initial codes** (coding of interesting and relevant aspects);
3. **Searching for themes** (gathering the codes into potential themes);
4. **Reviewing themes** (check if the themes work);
5. **Defining and naming themes** (clarify the details, clearly define and name each theme);
6. **Producing the report** (analysis report, selection of vivid and convincing examples of the extract, final analysis of the selected

extracts, relationship between analysis, research question and literature, producing an academic report of the analysis).

## Results and discussion

Based on the data analysis, it was observed, by the experience of the group of urban farmers, the repercussions of their work for society and the planet, as well as their relations with sustainability and food systems.

### The work of the Women of GAU and its repercussions for society and the planet

The perception of Women of GAU have about the importance and impact of their work is not limited to the community in which they are inserted or to the people who participate directly in the activities they develop. In these women's view, their tasks benefit society and the planet. The participant Feijão-guandu mentions urban farming as a practice related to feeding people and caring for the environment.

*I feel happy, fulfilled for developing an activity that we know is important for people, it's overall important, important for people, for our community, we've a very close work with the community. Before the pandemic we're always welcoming students in the facility, from kindergartens, from schools, the teachers; it's a very important [experience], I feel like a person who's doing a small favor for our planet, we hear that every day, nobody respects the environment, the environment is getting degraded more and more, every day, here we just do our part. We've a garden not only to feed ourselves but also to take care of our planet, improve our air, reduce pollution, we perform various activities, as our composting that we store waste, it already does the composting, the waste doesn't go to dumps or landfills, so I think I feel happy here, and I feel that I'm doing something right, some good for people and for the planet. (Feijão-guandu, 2020).*

The participant Hibisco also relates her work to broader issues, as she speaks of the insights she has had over the years working with farming.

In this way, it shows the potential that farm work can provide to the connection and reflection on aspects involving the improvement of the environment in which one lives (Ribeiro et al., 2011). Hibisco mentions, for example, the impact of consumerism on environmental issues and its consequences, which are evident in everyday life, such as the unstable and the unpredictable climate that affects the crops. She complements by saying that, with all knowledge she has acquired, she realized she could collaborate with the change of this situation and be an example for other people to contribute.

*[...] I'm working here for almost three years, I saw the meaning of working with love, with the crops, working with nature. I saw the development of Mother Earth, the care that we must have, because what is happening today, this global warming, the world ending, why? Because we don't have conscious consumption, you know? [...] The destruction of everything, the planting has one expectation and another happens, as has happened to us here several times, and the land can't take it, it loses control. Then when we have a swarm of insects in the market gardens, even in the urban environment that people are scared, you don't know why, it's the imbalance, you know? [...] so all of this is a learning experience and we go deeper and deeper, our mind is expanding seeing different things and seeing that there is another way, a possibility having a change and also getting people to see in us the change and be able to change as well. We can't change another person, but the person can see change in us, because we can change, but the person seeing their change might say: well if that person did and it worked, I'll do just like them, you know? (Hibisco, 2020).*

### Interfaces with sustainability and food systems

These actions carried out by the Women of GAU, undergo the path of the aliment from soil to table, which is broad, diverse, and complex, having interfaces with sustainability and composing important parts of the food system (FS). The definition of FS is a system formed by a set of elements (environment, people, infrastructures, etc.) and activities related

to several stages, such as production, distribution, preparation, and consumption of aliments, also comprising their socioeconomic and environmental results (HLPE, 2014). A sustainable FS can provide food and nutritional security for all, not compromising economic, social, and environmental structures, to generate food security and nutrition for future generations (HLPE, 2014). In the debates regarding the sustainability of the FS, it is important to consider the environmental aspects together with cultural, social, and economic aspects (Ribeiro; Jaime; Ventura, 2017).

Currently, the global FS is unsustainable and face several problems, such as climate change, local armed conflicts, difficulties in accessing food and resources, among others (Marchioni; Carvalho; Villar, 2021). Such problems are complex and have a great impact on the health of people and the planet, making this a theme based on discussions of global scope, as it was present in the 2030 Agenda of the United Nations (UN), for sustainable development, which aims to end poverty and promote a dignified life for all, respecting the limits of the planet (UN, 2015).

Since all decisions, such as what and how one eats, are social and political, the participation and involvement of the population in facing the issues related to FS is also essential. Food consumption practices are an essential part of mitigating issues related to climate change and the food system, which extend to what and how people eat in their daily lives (Mäkelä; Niva, 2015). The essential aspects of a sustainable eating routine are the moderate consumption of meat products, vegetable oils, and sugar; the change of the pattern of current diets to versions that have higher consumption of vegetables; the reduction of the consumption of ultra-processed foods and food waste (Lawrence et al., 2019). Moreover, sustainable eating patterns consider the cultural heritage, food quality, and culinary skills of the population (Lairon, 2012).

The Women of GAU's activities, related to farming and cooking, converge with the aforementioned aspects, contributing to the promotion of a sustainable FS, which impacts on the health of people and the planet. In the context of the Women of GAU, the application of the four fundamental aspects of a sustainable diet (Lawrence et al., 2019) can be observed below:

- **Moderate consumption** is exemplified by Ora-pro-nóbis as reducing red meat intake, which is associated with a positive impact on health and the environment (Carvalho et al., 2016).

*[...] today we can survive without needing meat, you know? "Oh I'm not going to lunch because there's no meat" no, there are so many possible recipes that you can make and eat, with no meat at all, especially red meat, that people say it's not good for us to eat too much, you know? Eating more chicken, you know? So there's a lot of good things you can make. (Ora-pro-nóbis, 2020).*

- The **higher consumption of vegetables** is illustrated, in the context of the participants, by the consumption of the foods they plant, among them the PANC, which promotes a cultural rescue and the expression of Brazilian biodiversity, contributing to a sustainable consumption (Kinupp, 2007; Martinelli; Cavalli, 2019).

*It changed regarding spices, here we go and get the fresh seasoning, just put in the food. Then, I was not very interested in lettuce, endive, or any PANC. But I changed my mind, today if I make my lunch with no greens on my plate, for me, it's like something is missing. (Feijão-guandu, 2020).*

- The **reduction in the consumption of ultra-processed foods** is exemplified by Hibisco (2020), when she says that she chooses homemade juices, instead of powdered ones that undergo excessive processing, which is unsustainable (Martinelli; Cavalli, 2019): *"And so, I've made changes, I used to drink powdered juice, [...] [now] I rather buy a passion fruit, a lime, an orange and make my own juice."*
- The **reduction of food waste** is mentioned by Ora-pro-nóbis, by using all parts of food. She learned how to make the

banana peel, reducing waste, which is an important element in decreasing the impacts of food cycles on the environment (Reynolds et al., 2019).

*Oh! I learned tons of things [...] The carne maluca [shredded beef sandwich; in this case, a vegan version of the recipe] that's made from the banana peel, you know?. It is an exploitation that we make with everything, because in the old days you took the banana peel, you threw it away, you did not make good use of anything. Nowadays, you can make the banana peel in two ways, making the carne maluca and also bread the banana peel (Ora-pro-nóbis, 2020).*

These four aspects are present in the makings that the participants cook, such as the vegetarian *moqueca* of green papaya and the breaded *peixinho-da-horta* that Ora-pro-nóbis put on her map. This is an option that encourages moderate consumption, higher vegetable intake, and reduced consumption of ultra-processed foods and food waste.

Hibisco addresses the importance of the work they do and raise perceptions of points that are significant for a sustainable FS, such as the importance of the work of the farmer, unconventional agriculture, and the connection between healthy eating, environment, and global health (Martinelli; Cavalli, 2019).

*A huge challenge that, besides being a challenge, many people do not recognize the labor of a farmer, and do not know what is a farmer's job, both in the inland and in the city, it is a work that is done with love, worried about people's health, you know? I'm going to name it "farmer," farmer not like in agribusiness. There is a huge difference between agribusiness and farmer, an urban farmer and a rural farmer, because urban farmers work thinking about nature, it is a very big challenge to work thinking about the well-being of our world that screams for help, right? You feel the temperature, climate change, all of this involves what we do unconsciously, you know?, which is the overuse of chemicals, consumption of many things without having a proper disposal, it's just thrown in the environment, and today we suffer from it [...]. So all*

*of this, I think it's a set of everything, healthy eating, both people and the environment, global health, all of that, so I don't even have words to express all of that, you know? (Hibisco, 2020).*

Finally, Hibisco emotionally talks about the dream she has, in which projects like the Women of GAU that include both farming and cooking, will expand and be acknowledged by the government:

*Look, I dream that family farming, urban farming, don't be restricted, how do I say? To a municipality, but that it expand throughout the world and thus, be acknowledged by the government, you know? [she gets emotional, asks for some time to calm down, since talking about this topic is deeply moving for her]. So, just as I regained my health, I retrieved my childhood, here in São Paulo, in this great metropolis, that people come here looking for a better future, who migrate from their hometowns, from their homeplaces and here [São Paulo] embraces everyone with open arms and welcomes everyone and here we need to have this culture of healthy eating, because the rush of daily living, work, stress, make us forget a little about our health. And as São Paulo has so many things to offer to us, why not farming and a healthy diet for all, you know? Especially for people from poor neighborhoods who do not have good living conditions and access to healthy food, and I have the dream that this work of ours will be acknowledged and encompasses people who do not have access to healthy food (Hibisco, 2020).*

The participant's speech stresses the importance of public policies in strengthening and reproducing this type of initiative. For her, a city like São Paulo, which has so much to offer, can also promote farming and a healthy diet for all, especially for socially vulnerable people, such as those from poor neighborhoods. This is related to the importance of the role of urban regions in facing these challenges locally, since the organization of cities enables the creation, strengthening, and fulfillment of actions and public policies, which are associated with the promotion of a sustainable FS (Costa, 2016).

Municipalities can contribute to this FS by implementing, locally, strategies that ensure the democratization of access to healthy food, combat food waste in distribution and consumption, as well as promoting discussions on the impacts of eating on biodiversity and the cultures of traditional peoples (Tângari, 2019). To overcome this challenge of creating a sustainable FS, it is essential to involve multiple actors in the discussions, covering production systems, supply chains, food environments, and consumption (Marchioni; Carvalho; Villar, 2021). Therefore, structural actions are necessary together with actions that understand the eating ways of individuals and collectivities.

## Final considerations

Data were generated based on the experience of female urban farmers, who experience the act of cooking as a daily work. These data enabled a better understanding of how their work impact society and the planet, as well as their interfaces with sustainability and food systems.

The Viveiro Escola União de Vila Nova is an educational space, where activities and meetings promoted by the Women of GAU, also has partnerships with other people, groups, and organizations, which contributes to the improvement and development of the actions carried out by them. The development of the act of cooking, together with urban farming, in a context such as that of the Viveiro, which provides an educational space, can be a tool for health promotion at the local level. This raises discussions on aliment and food and provides the transformation of a certain reality, which generates a positive impact on people's health and the creation of healthy environments.

The act of cooking proved to be a connector between the field and the table, strengthening and being strengthened by the practices of urban and peri-urban farming. Furthermore, this act can be an interesting tool to promote health in its broadest sense, contemplating biopsychosocial well-being regarding issues of social, economic, and environmental sustainability, to promote more sustainable food systems, showing that it is an essential tool to face the challenges of the Anthropocene. Notably, to be able to cook and to

have this transformative potential, basic resources are needed, such as access to food, drinking water, electricity, and bottled gas. However, in the Brazilian reality, marked by socioeconomic inequalities and returning to the UN's Hunger Map, the population has no access to these basic resources. Therefore, it is essential to strengthen public policies.

## References

- ARTAXO, P. Uma nova era geológica em nosso planeta: o Antropoceno?. *Revista USP*, São Paulo, n. 103, p. 13-24, 2014. DOI: 10.11606/issn.2316-9036.voi103p13-24
- BRASIL. Ministério do Desenvolvimento Social e Combate à Fome. *Marco de Referência de Educação Alimentar e Nutricional para as Políticas Públicas*. Brasília, DF, 2012.
- BRASIL. Ministério da Saúde. *Política Nacional de Alimentação e Nutrição*. Brasília, DF, 2013.
- BRASIL. Ministério da Saúde. *Guia alimentar para a população brasileira*. 2. ed. Brasília, DF, 2014.
- BRAUN, V.; CLARKE, V. Using thematic analysis in psychology. *Qualitative Research in Psychology*, Abingdon, v. 3, n. 2, p. 77-101, 2006. DOI: 10.1191/1478088706qp0630a
- CARVALHO, A.M. de et al. Excessive red and processed meat intake: relations with health and environment in Brazil. *British Journal Of Nutrition*, Cambridge, v. 115, n. 11, p. 2011-2016, 2016. DOI: 10.1017/S0007114516000969
- CONCEIÇÃO, M.I.G.; MAGALHÃES, L.; GASTALDO, D. Introdução aos mapas corporais narrados: uma metodologia qualitativa para estudar saúde coletiva. In: MENDONÇA, A. V. M.; SOUSA, M. F. (Org.). *Métodos e técnicas de pesquisa qualitativa em saúde*. Brasília, DF: ECoS, 2021. v. 1, p. 119-135.
- COSTA, M. A. (Org.). *O Estatuto da Cidade e a Habitat III: um balanço de quinze anos da política urbana no Brasil e a nova agenda urbana*. Brasília, DF: Ipea, 2016.
- DAMATTA, R. Sobre o simbolismo da comida no Brasil. *O correio da Unesco*, Rio de Janeiro, v. 15, n. 7, 1987.

- DIEZ-GARCIA, R. W.; CASTRO, I. R. A culinária como objeto de estudo e de intervenção no campo da Alimentação e Nutrição. *Ciência e Saúde Coletiva*, Rio de Janeiro, v. 16, n. 1, p. 91-98, 2011. DOI: 10.1590/S1413-81232011000100013
- FERREIRA, J. W.; WAYNE, L. S. A cozinha das mulheres. *Revista Espacialidades*, Natal, v. 13, n. 1, p. 107-126, 2018. DOI: 10.21680/1984-817X.2018v13n01ID17598
- GASTALDO, D. et al. Body-Map Storytelling as Research: Methodological considerations for telling the stories of undocumented workers through body mapping. Toronto: University of Toronto, 2012.
- GASTALDO, D.; RIVAS-QUARNETI, N.; MAGALHÃES, L. Body-Map Storytelling as a Health Research Methodology: Blurred Lines Creating Clear Pictures. *Forum: Qualitative Social Research*, Berlin, v. 19, n. 2, 2018. DOI: 10.17169/fqs-19.2.2858
- HLPE - The High Level Panel of Experts. *Food losses and waste in the context of sustainable food systems*. A report by the High Level Panel of Experts on Food Security and Nutrition. Rome: FAO, 2014.
- KINUPP, V. F. Plantas alimentícias não-convencionais da região metropolitana de Porto Alegre, RS. 2007. 562 f. Tese (Doutorado em Fitotecnia) - Universidade Federal do Rio Grande do Sul, Faculdade de Agronomia, Porto Alegre, 2007.
- LAIRO, D. Biodiversity and sustainable nutrition with a food-based approach. In: BURLINGAME, B.; DERNINI, S. (Ed.). *Sustainable Diets and Biodiversity: directions and solutions for policy, research and action*. Rome: FAO; 2012. p. 30-35.
- LAWRENCE, M. et al. Sustainable diets: the public health perspective. In: BURLINGAME, B.; DERNINI, S. (Ed.). *Sustainable diets: linking nutrition and food systems*. Boston: CABI, 2019. p. 13-22.
- LÉVI-STRAUSS, C. *O cru e o cozido*. São Paulo: Cosac & Naify, 2004.
- LIMA, R. S.; FERREIRA NETO, J. A.; FARIAS, R.C.P. Alimentação, comida e cultura: o exercício da comensalidade. *Demetra: Alimentação, Nutrição & Saúde*, Rio de Janeiro, v. 10, n. 3, p. 507-522, 2015. DOI: 10.12957/demetra.2015.16072
- MÄKELÄ, J.; NIVA, M. Citizens and sustainable culinary cultures. In: MÄKELÄ, J.; NIVA, M. *Climate Change Adaptation and Food Supply Chain Management*. Abingdon: Routledge, 2015. p. 172-182.
- MARCHIONI, D. M.; CARVALHO, A. M. de; VILLAR, B. S. Dietas sustentáveis e sistemas alimentares: novos desafios da nutrição em saúde pública. *Revista USP*, São Paulo, v. 1, n. 128, p. 61-76, 2021. DOI: 10.11606/issn.2316-9036.i128p61-76
- MARTINELLI, S.S.; CAVALLI, S.B. Alimentação saudável e sustentável: uma revisão narrativa sobre desafios e perspectivas. *Ciência & Saúde Coletiva*, Rio de Janeiro, v. 24, n. 11, p. 4251-4262, 2019. DOI: 10.1590/1413-812320182411.30572017
- MENESES, M. P. Para ampliar as Epistemologias do Sul: verbalizando sabores e revelando lutas. *Configurações*, Braga, n. 12, p. 13-27, 2013. DOI: 10.4000/configuracoes.1948
- ONU - Organização das Nações Unidas. *Transformando nosso mundo: a agenda 2030 para o desenvolvimento sustentável*. Brasília, DF, 2015.
- REYNOLDS, C. et al. Review: consumption-stage food waste reduction interventions: what works and how to design better interventions. *Food Policy*, Amsterdam, v. 83, p. 7-27, 2019. DOI: 10.1016/j.foodpol.2019.01.009
- RIBEIRO, S. M. et al. Agricultura Urbana Agroecológica - Estratégia de promoção da saúde e segurança alimentar e nutricional. *Revista Brasileira em Promoção da Saúde*, Fortaleza, v. 25, n. 3, p. 381-388, 2012. DOI: 10.5020/2269
- RIBEIRO, H.; JAIME, P. C.; VENTURA, D. Alimentação e sustentabilidade. *Estudos Avançados*, São Paulo, v. 31, n. 89, p. 185-198, 2017. DOI: 10.1590/s0103-40142017.31890016

RIGOTE, G. *Cozinhando mudanças: os significados do ato de cozinhar para mulheres de um Grupo de Agricultura Urbana da zona leste da cidade de São Paulo*. 2022. 152 f. Dissertação (Mestrado em Saúde Pública) - Faculdade de Saúde Pública, Universidade de São Paulo, São Paulo, 2021. DOI: 10.11606/D.6.2021.tde-07022022-205337

SÃO PAULO. Decreto no 64.994, de 28 de maio de 2020. Dispõe sobre a medida de quarentena de que trata o Decreto no 64.881, de 22 de março de 2020, institui o Plano São Paulo e dá providências complementares. *Diário Oficial, Poder Executivo*, São Paulo, 29 maio 2020. p. 1.

TÂNGARI, J. M. et al. Construindo políticas alimentares: o papel das cidades e dos cidadãos. In: ROCHA, M. G.; TÂNGARI, J.M.; XAVIER, F.T. (Org.). *Isto Não é (apenas) um Livro de Receitas: é um jeito de mudar o mundo*. 2. ed. Rio de Janeiro: Fundação Heinrich Böll, 2019. p. 22-25. Disponível em: <[https://74ca6b36-53be-4db5bbo7b19c95odec5e.filesusr.com/ugd/349c51\\_53b108352e37415bbaf5c05f52d93doo.pdf](https://74ca6b36-53be-4db5bbo7b19c95odec5e.filesusr.com/ugd/349c51_53b108352e37415bbaf5c05f52d93doo.pdf)>. Acesso em: 15 jul. 2021.

VICTORA, C.; KNAUTH, D.; HASSEM, M. N. *Pesquisa qualitativa em saúde: uma introdução ao tema*. Porto Alegre: Tomo Editorial, 2000.

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### Authors' contributions

Rigote: elaborated the first version of the text, participated in the development, finalization and review. Bueno: participated in the development, finalization, and review. Akerman: participated in the finalization and review of the manuscript.

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