

TITLE:

Valuing labor in a warming planet: a multi-sited ethnography of the bakery industry in the Americas

RESEARCHERS:

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ABSTRACT, INTELLECTUAL MERIT, BROAD IMPACT

Emerging literature on labor and climate change, evaluate the effects of rising temperatures on productivity. The discussion is centered around how a warmer environment might contribute to less productivity. Less productivity is tied to the projection of growing social and economic inequality. But is productivity the only way to value labor, and its relationship with inequality? This research draws on STS, economic anthropology, and political ecology, to analyze the different forms of labor that are affected by rising temperatures, and how expert knowledge about climate intervenes and informs labor valuation and understanding of social inequality.

To answer these questions, the research will focus on the labor involved in the value chain of the bakery industry in the Americas. The bakery industry is heavily reliant on agricultural commodities from different parts of the world. From wheat for flour to the palm oil used in margarine and cocoa for chocolate, the value chains of the bakery industry are an assemblage of plants that grow in distinct ecosystems and require different forms of labor to be reproduced. The research is divided into five case studies following different ingredients and nodes of production that are critical for the bakery industry: palm oil in Colombia, cocoa in Ecuador, sugar cane in Brazil, wheat in the United States, and the corporate offices of the largest bakery company in Mexico. The diversity of locations and ingredients allows us to compare the diversity, and inequality, in the work involved in one final product (e.g. chocolate cupcakes). The geographical differences allow us to consider the role of rising temperatures in the experience and valuation of work. The aim is to compare how work is lived, experienced, known, and valued in different regions and types of work - especially considering that they have different projections for temperature rise, as well as Key Performance Indicators of doing a "good job". Furthermore, the focus on the bakery sector allows us to see how food, especially agro-industrial production for mass consumption, is connected to climate change and different ways of making a living. In sum, the research hopes to explore how the production of "cheap food" relates to debates on inequality, labor, and climate change in light of the quest toward "just sustainable transitions".

OVERVIEW / RESEARCH QUESTIONS

Recent research indicates that climate change will have negative repercussions on the possibility of working in certain regions of the planet (Dasgupta et.al2021). According to this research, current temperatures are already negatively affecting "labor productivity" in some parts of the world, such as countries located near the equator. This projection of the future of labor considers the decrease of labor to be "negative" and with direct relation to the increase in poverty and inequality. It also directs attention to addressing the risk through interventions that facilitate work under the environmental conditions of

the future. The goal of productivity is not questioned. The valuation of work under the lens of productivity reduces inequality and climate change as something that can be solved through technical and managerial interventions. However, this doesn't imply that the research on labor productivity has nothing to say about the socioecological life of work. They point out that the rise in temperatures is transforming the way people work, and the production of crops that rely on specific ecological conditions. The present research takes up studies from STS, economic anthropology, and political ecology to ask:

- How are changes in temperature affecting human, and non-human labor involved in the studied agro-industrial supply chains?
- How is the experience of rising temperatures, and the expert knowledge about it, transforming and informing the different forms of labor valuation in the studied agro-industrial value chains?
- How do people working in the studied value chains perceive the relationship between temperature and work?

BACKGROUND AND SIGNIFICANCE

In the last decade, there has been a growing debate on rethinking planetary transformations with attention to their relationship with social and political histories, and presents. Concepts such as the Capitalocene and Plantationocene complicate the Anthropocene narrative by addressing the political and economic relationships that enabled certain forms of exploitation, extraction, and violence that drive climate change. These concepts recognize how climate change does not happen only by unmarked and universal "human action". The scholarship of the Plantationocene in particular draws on the specificity of the mode of production of the plantation as a key to the colonial expansion. The attention to labor in the plantation is critical to understand power relations, that are still embedded in much of the economic system, and agricultural supply chains in postcolonial countries. Working in the Americas, this research hopes to show how distinct modes of postcolonial realities are inscribed in the planetary transformation and connected to the production of "cheap food". Further, these recent discussions on the Plantationocene also recognized the liveliness and materiality of plants. Rising temperatures are not affecting just human labor, but the work that plants do to feed the world.

In such broad and complex value chains, it is urgent to consider how different forms of labor are related. Studies on productivity and rising temperature mention how working indoors and outdoors is a critical distinction. Working outdoors in an agricultural field without shadows has more risks, that working inside a factory, or an office with AC. It's critical to move beyond the location itself, but framing the division of labor concerning the infrastructure, and how within one sector, and even one company, coexist different levels of exposure to the temperature, and vulnerability of climate risk.

Discussions around the Plantationocene argue that plantations are a specific mode of production characterized by expansive and intensive human/non-human labor. For example, other forms of agricultural production, such as wheat, require less human labor force. By incorporating distinct ecosystems, and industrial and commercial labor into the methodological design, the research hopes to contribute to wider ethical discussions over the future of food.

LITERATURE REVIEW

- STS on management: Expert knowledge and labor as productivity
- Economic anthropology on labor: Substantivism, and way of "making a living: worldmaking.

- Political economy-ecology of food systems: Colonialism-capitalism, and agrifood supply chains as planetary transformations (Plantationocene)

METHODS AND DATA RESOURCES

The research is a multi-sited ethnography formed by five research teams working in different organizations and nodes of the bakery industry value chain. Each research group will follow the commodity from its agricultural production to its integration into the agro-industrial bakery chain and its commercialization as bread, cake, cookie, etc. The ethnographic work will be carried out with agricultural, industrial, and commercial workers.

The research is divided into five case studies. Four case studies will start in the agricultural production located in one country, and from there it will follow the agro-industrial and commercial labor involved in transforming the "raw material" into a commodity for the bakery industry. Sometimes this method will take the research group to another country, other times it will be part of the same location.

- 1) Palm oil production in Colombia.
- 2) Cacao production in Ecuador.
- 3) Wheat production in the United States.
- 4) Cane sugar production in Brazil.

The final case study starts in the corporate offices of one of the largest bakery companies in the world, and the largest in the Americas. Here the research team will follow the products to retail, and other places of consumption.

- 5) Bakery production in Mexico.

The main methods in each case study are:

- Participant observation
- Semi-structured interviews focused on their work, professional trajectory, environmental change, and the role of the industry.
- Climate and labor datasets

THEORETICAL FRAMES & DATA ANALYSIS

- Economic anthropology and labor -
- STS and expert knowledge of management and labor
- The Plantationocene – human/nonhuman labor and postcolonial planetary transformations

PLAN OF WORK

CHALLENGES AND ETHICAL CONSIDERATIONS

VALIDITY AND EVALUATION

PREPARATION AND WORK THUS FAR

REFERENCES

DATA MANAGEMENT

As part of a collaborative project, a database of the five research teams will be formed with the transcripts of the interviews, and an archive of relevant documents that can be reused by other researchers interested in labor and climate change. Interviews will be anonymized, data that would facilitate identification will be omitted (with a flag if appropriate) and consent will be requested to be part of the database to be shared. In case the participants do not want it, the data will be used exclusively for the project.

PLAN FURTHER

NOTES