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*Artigo | Dossiê História Oral: experiências, trajetórias e percursos de pesquisa*

# The sensory in the oral history of Diocina Lopes dos Reis: an invitation to environmental historians

Elizabeth Schwall, *Northern Arizona University*

**Keywords:**

environmental history;
senses;
babassu coconut breakers.

**Abstract.** This article encourages scholars to work at the intersection of oral history, environmental history, and sensory history to better understand how complex, three-dimensional individuals interacted with and experienced landscapes. To make this argument, the essay examines existing academic literature and then illustrates how focusing on sensory details in an oral history interview can provide fresh insights into environmental histories. The interview at the center of this essay was recorded in 2004 by the Museu da Pessoa, and the narrator is Diocina Lopes dos Reis, a *quebradeira de coco babaçu* - a woman who extracts babassu coconuts - from Lago do Junco, Maranhão. Lopes dos Reis and other fellow *quebradeiras* lived through bloody battles over land in the 1970s and 1980s and have successfully commercialized their soap and other coconut byproducts in subsequent decades. Her story is filled with sensory information that foregrounds the gender and class dynamics of environmental history.

**Palavras-chave:**

história ambiental;
sentidos;
quebradeiras de coco babaçu

**[PT] O sensorial na história oral de Diocina Lopes dos Reis: um convite aos historiadores ambientais**

**Resumo.** Este artigo incentiva pesquisadores a trabalhar na intersecção entre história oral, história ambiental e história sensorial visando compreender melhor como indivíduos complexos e tridimensionais vivenciaram e interagiram com paisagens. Para apoiar essa conclusão, o ensaio examina a pesquisa acadêmica existente e, em seguida, ilustra como o foco em detalhes sensoriais em uma entrevista de história oral pode fornecer novos insights sobre histórias ambientais. A entrevista central deste ensaio foi gravada em 2004 pelo Museu da Pessoa, e a narradora é Diocina Lopes dos Reis, uma quebradeira de coco babaçu — uma mulher que extrai cocos de babaçu — do Lago do Junco, Maranhão. Lopes dos Reis e outras quebradeiras viveram batalhas sangrentas por terras nas décadas de 1970 e 1980, comercializando, com sucesso, o seu sabão e outros subprodutos do coco nas décadas subsequentes. A sua história é repleta de informações sensoriais, que destacam as dinâmicas de gênero e classe da história ambiental.

**Palabras clave**

historia ambiental;

**[ES] Lo sensorial en la historia oral de Diocina Lopes dos Reis: una invitación a los historiadores ambientales**

sentidos; quebradeiras de coco de babasú

**Resumen.** Este artículo anima a los investigadores a trabajar en la intersección de la historia oral, la historia ambiental y la historia sensorial para comprender mejor cómo los individuos complejos y tridimensionales interactuaron con los paisajes y los experimentaron. Para argumentar esto, el ensayo examina la investigación existente y, luego, ilustra cómo el centrarse en los detalles sensoriales en una entrevista de historia oral puede brindar nuevas perspectivas sobre las historias ambientales. La entrevista central de este ensayo fue grabada en 2004 por el Museu da Pessoa y la narradora es de Diocina Lopes dos Reis, una quebradeira de coco babaçu (mujer que extrae cocos de babasú) del Lago do Junco, Maranhão. Lopes dos Reis y otras quebradeiras vivieron sangrientas batallas por la tierra en las décadas de 1970 y 1980 y comercializaron con éxito su jabón y otros derivados del coco en las décadas posteriores. Su historia está repleta de información sensorial que pone de relieve las dinámicas de género y clase de la historia ambiental.

## Introduction

In the final minutes of Diocina Lopes dos Reis's 2004 oral history interview for the Museu da Pessoa, the plant at the center of her story makes an appearance. Her emotive face moves out of view, replaced by a babassu coconut and samples of the products that Lopes dos Reis and her fellow *quebradeiras de coco babaçu* (babassu coconut breakers) derive from the plant. As Lopes dos Reis explains the coconut-derived tasty dough and pleasant-smelling soap, she runs her fingers over the smooth surfaces of the babassu coconut that had profoundly shaped her life of cultivation, struggle, and ingenuity. This seemingly simple moment evokes all the senses. The viewer hears about tastes and smells and sees Lopes dos Reis touch raw materials and finished products, gesturing to the tactile experiences part of her days in the forest. In the virtual encounter occasioned by a filmed oral history, the viewer and narrator engage the senses.

This article examines the sensory details that enrich Lopes dos Reis's interview during and before this culminating moment to share a simple message to environmental historians using oral history methodologies: remember the senses. Recorded oral histories invoke the senses, not just as a sonic and perhaps visual record, but also as a narrative filled with the tastes, smells, touches, sights, and sounds of the past. I argue that environmental historians utilizing oral history methods should ask questions about the senses and pay special attention

to sensory details to more fully understand the unique embodied, physical experiences that human narrators have with the more-than-human world. Sometimes, environmental histories can lose the trees for the forest, to flip the famous phrase. Focusing on the senses in an oral history interview rectifies this tendency by spotlighting how the environment affects, and is affected by, three-dimensional individuals with bodies that engage with landscapes through different senses.

To develop this argument, I first discuss recent scholarship from the fields of oral history, environmental history, and sensory history, noting the value of and need for bringing these three together. Then, I turn to Diocina Lopes dos Reis's oral history to show how sensory details shared therein help to connect larger environmental histories to her gendered and classed body. To conclude, I indicate future avenues for research and why sensory details in oral history interviews have become even more important in this era of anthropogenic climate change.

**Overlooked Intersection: Oral, Environmental, and Sensory Histories**

In the past two decades, there have been exciting developments in scholarship that brings together oral history and environmental history on the one hand and environmental history and sensory history on the other. Less attention has gone to the senses in oral history or to combining oral, environmental, and sensory histories. Below I tease out what ground has been covered and what remains to be explored, examining important texts and reflecting on what can be gained by more fully intermixing the three historical fields. First, I discuss the intersection of oral history and environmental history in Anglophone and Brazilian scholarship, teasing out resonances and some missed opportunities for direct engagement. Then, I delve into works at the intersection of environmental history and sensory history. Following the lead of environmental historians who have chosen a single sense to focus on, I move through literature on the environment and sound, taste, smell, sight, and touch

in turn. The selection of works provides an admittedly partial, but hopefully representative, sample of existing scholarship, especially in the United States and Brazil.

Starting with work at the intersection of oral and environmental history, it is worth reflecting on why this intersection is unsurprising. Both fields have activist bents that manifest in decentering traditional historical protagonists. That is, oral history aims to record and critically grapple with nonelite narrators that might be left out of traditional archives, and environmental history focuses on the agency of nature to shape human pasts and presents. Uniting the two fields allows scholars to show the significance of previously unheard voices—both human and more-than-human ones.

The entanglement of these voices and the urgency of listening to them came to the fore in the United States and Europe in the wake of natural and unnatural disasters in the late twentieth and early twenty first centuries. Oral and environmental historians aimed to examine and learn from tragedies like the Chernobyl nuclear accident in 1986 and flooding caused by Hurricane Katrina in 2005. This scholarship had activist underpinnings, exposing the people and places harmed by social and structural failures (Sloan, 2022, p. 2-6).

Arguably even more so in Brazil, broader struggles for social change fed into and shaped the intersection of oral and environmental history. In the late 1980s and early 1990s, activists fought for democracy and greater rights after over twenty years of dictatorship. Oral and environmental historians made their own contributions to the push for social change by turning to historically marginalized peoples and their landscapes. As early as 2000, articles in the journal *História Oral* began discussing rural lives and land struggles around the country (Maia; Montysuma, 2024, p. 95, 98-101). Democratizing history meant working from the bottom up, starting with non-elite peoples who worked and tread soils, raised and ate animals, and tended to and tapped trees.

Interest in utilizing oral history methodologies to understand changes to environments over time seemed to accelerate in the early 2010s. Take just one example from the United States. In 2010, US climate journalist Peter Friederici

published edited oral histories in the collection *What Has Passed and What Remains: Oral Histories of Northern Arizona's Changing Landscapes*. The book was the product of Northern Arizona University's Ecological Oral Histories Project, which collected interviews with long-time area residents who have observed local environmental changes since the 1930s. Each chapter features brief paragraphs by the editor, followed by a seamless, edited narrative drawn from the oral history interviews. This format allows the interviewee to carry the reader along, rather than relying on the analyst's voice. Also adding significantly to the text are more than fifty photographs. The verbal and visual storytelling spotlights the dramatic and mundane course of lives lived in changing Arizonan landscapes (Friederici, 2010).

In Brazil, an important two-part dossier of *História Oral* published just after *What Has Passed and What Remains*, at the end of 2011 and beginning of 2012, focused on "history, nature, culture and orality." It is hard to overstate the impressive range of topics and approaches in the twenty research articles, one interview, two essays about audiovisual materials, and one book review across parts one and two of the dossier. The authors deploy oral history methods to analyze environmental histories of both urban and rural places in Brazil, as well as one study on agricultural specialists in Angola (Schmidt; Funes; Montysuma, 2011; Schmidt; Funes; Montysuma, 2012).

As just one example of the content and conclusions generated by merging oral and environmental history, consider the article by Andréa Casa Nova Maia and Lise Sedrez, which examines memories of the 1966 floods in Rio de Janeiro, particularly in the neighborhood of Praça da Bandeira. The authors conducted oral history interviews and consulted press to understand collective memories of the natural disaster, especially how neighbors and local institutions (such as churches and schools) mobilized to help citizens weather the storm. The authors found that interviewees tended to reinforce their class identities and social relationships while narrating memories of the flood. For instance, some middle-class narrators remembered the situation being much worse for poorer citizens (regardless of whether that was actually the case), and some shared

details about their long-term connections with a church that helped flood victims. In many ways, the interviews became discussions of the "*quotidian*…[rather] than *disaster* or *catastrophe*" (Maia; Sedrez, 2011, p. 248)[1]. The article, then, uses oral history to consider how citizens face, remember, and narrate natural disasters and how these memories shape communities and class divides that in turn define city life.

Toward the end of the 2010s and into the 2020s, the effort to combine oral and environmental history matured enough to result in four important edited volumes. One of the first, *The Land Speaks: New Voices at the Intersection of Oral History and Environmental History*, was published in 2017 and focuses exclusively on the United States. It highlights the fact that, as the title puts it, "the land speaks" and certain human narrators have "land-language fluency", meaning intimate understanding of the land and what it can "tell" people, thanks to a lifetime of learning and working outside (Newfont; Lee, 2017, p. 3). Within *The Land Speaks*, land-language fluent individuals include people with diverse backgrounds within the United States, such as the Hopi elder Ferrell Secakuku, urban gardeners in west Philadelphia, forest service employees in the US west, and suburban women who fought to save the Indiana sand dunes. As human narrators share what they have heard from the land across their lifetimes, they often provide invaluable insights into climate changes and how humans have adapted to these subtle or drastic shifts over the decades (Lee; Newfont, 2017). The interviews in the collection, according to editors Kathryn Newfont and Debbie Lee (2017, p. 10), open "[…] new vistas for oral history so vast as to nearly defy the imagination" because the interviews transmute the "deeply humanist endeavor" of oral history into a tool for "ecological research, environmental problem solving, land management, and wilderness policy, to name only a few". In other words, partnering oral history and environmental history transforms individual life stories into jumping off points for tackling bigger environmental

[1] Italicized in the original Portuguese: "muito mais como *cotidiano*...do que como *desastre* ou *catástrofe*."

challenges, while also making overarching climate change more concrete and comprehensible with the help of human faces, emotions, and words.

Echoing many of the points in *The Land Speaks* and also published in 2017, the edited volume *Telling Environmental Histories: Intersections of Memory, Narrative, and Environment* expands the discussion beyond the United States and considers how oral histories from postcolonial countries might complicate environmental histories crafted from imperialist centers. Though sticking to the Anglophone world, scholars represented in the volume were based in and writing about the "UK, the 'settler colonies' of Australia, Canada and the USA, and … the tropical and formerly colonized India" (Holmes; Goodall, 2017, p. 7). This geographical diversity challenges environmental histories' declensionist narratives—with all humans acting as a homogeneous, destructive force. Oral histories show a wider range of human interactions with landscapes, capturing the unique memories and emotions of "[…] the economically and culturally marginalized, the colonized, the displaced and the excluded" (Holmes; Goodall, 2017, p. 8). Indeed, incorporating the voices of the geographically and socially marginalized provides a clearer sense of how gender, race, and class can impact a person's environmental engagement. With these diverse perspectives, the story goes from a tale of tragic decline and destroyed edens to one of inspiring innovation and adaptation in the face of climate challenges.

In 2019, an edited volume on oral history and the environment came out in Brazil. *História oral e natureza: resistência e cultura* (Oral history and nature: resistance and culture) focuses entirely on case studies in Brazil, similar to the 2017 *The Land Speaks* on the United States. The volume also resonates with the 2017 *Telling Environmental Histories* in that diverse protagonists, such as *quilombolas* in the Amazon and gold miners in Bahía, narrate relationships with the land that defy capitalist logics of exploitation and excessive accumulation even while these forces wreak havoc on the landscapes that narrators inhabit. In a chapter on the Jaguaribe River in Ceará state, for instance, locals have come to understand floods caused by dams through legends about a mythic beast serpent

("Bicho do Rio", river animal). Fear and reverence rather than ownership and control drive their stories about nature (Sindhu, 2019).

*História oral e natureza* is part of a series on "oral history and public dimensions", which includes other edited volumes with chapters that also bring together oral and environmental history. For instance, *História oral e movimento social* (Oral history and social movement) has a notable chapter on leaders of the environmental movement in Niterói (Almeida; Gusmão, 2016), and *História oral e conflitos rurais* (Oral history and rural conflicts) has several relevant chapters about violence and trauma in land struggles (Pinheiro Machado, 2020; Grynzpan, 2020; Guimarães Neto; Pereira, 2020). These edited volumes evidence the fact that Brazilian scholars are engaged in a vibrant conversation on how oral and environmental history can and should be brought together to address past and present violence, whether physical harm or painful silencing.

Three years after *História oral e natureza* came out in Brazil, another edited volume, *Oral History and the Environment: Global Perspectives on Climate, Connection, and Catastrophe* expanded the geographical discussion by including cases from Tanzania, Japan, China, along with those from the United States, Australia, New Zealand, India, and countries in Europe. Even though the 2022 volume acknowledged and built upon precedents, editor Stephen Sloan posited that a lot remains to be done. As he put it, "Despite a growing number of environmental studies incorporating oral history, there have been few reflective examinations of what it means for oral history to be used in environmental study" (Sloan, 2022, p. 7). Sloan concluded by contending that the studies in the volume should be taken as "[…] a proof of concept to do more" (Sloan, 2022, p. 10). With his words and the four edited volumes—two from 2017, one from 2019, and one from 2022—in mind, it is fair to say that efforts to bring oral and environmental history together have been relatively recent and that Latin America has been left out of the discussion of "global perspectives" spearheaded by editors from the United States, the UK, and Australia. Fortunately, Brazilian scholars have effectively addressed this lacuna through a rich, nationally focused conversation.

Two important articles published in Brazil have recently echoed Sloan in encouraging environmental historians to do more with oral material. In 2020, José Augusto Pádua and Alessandra Izabel de Carvalho concluded their sweeping historiographic overview of environmental histories of Brazil by encouraging environmental historians to make greater use of "oral sources". Based on recent monographs, the authors asserted: "it is a fact that oral history methodology still has a lot to contribute to environmental history research" (Pádua; Carvalho, 2020, p. 1335)[2]. Another article, published in 2023 by Fabíula Sevilha, added to the discussion by encouraging historians to bring together environmental history and public history through the use of oral history interviews. Sevilha noted that utilizing oral history methods could allow for the creation of environmental histories by and with the public. This would help to catalyze "shared action" (Sevilha, 2023, p. 319). Accessible narratives would in turn heighten everyday Brazilians' awareness of the challenges and responsibilities they face in this era of climate crisis. All in all, these historiographic articles in Brazil, like the scholarship surveyed in English, indicate the promise and need for more research at the intersection of oral and environmental history.

Moving now to scholarship that merges environmental history and sensory history, historians called for bringing these fields together in the early 2000s. Environmental historians have tended, however, to focus on a single sense rather than tackling several or all at once. Although the senses historically have been ranked hierarchically in the West with sight at the top, followed by sound, smell, taste, and touch at the bottom (Tullett, 2021, p. 819-820), environmental historians have been particularly innovative in their efforts to understand the role of sound, taste, and smell (in that order, based on the volume of work) in human interactions with landscapes across time and place.

Looking first at sound, silence and noise have famously signaled to those able to listen that humans have adversely affected the natural world. For

[2] Original Portuguese: "é fato que a metodologia da história oral ainda tem muito a contribuir nas pesquisas de história ambiental."

instance, Rachel Carson's landmark 1962 book of environmental consciousness, *Silent Spring*, flagged the absence of bird songs as indicative of the death and destruction caused by toxic chemicals. Meanwhile, noise from cars, boats, planes, and chainsaws remind individuals of a technologically saturated modernity that has particularly adverse effects on animal habitats. Canadian composer R. Murray Schafer coined the term "soundscape" when he spearheaded a project in the mid-1960s to study sound pollution and its effects (Coates, 2005, p. 369). Thus, the 1960s and 1970s environmental movement "[…] gave birth to one of sensory history's formative concepts: the soundscape" (Tullett, 2021, p. 814).

Following these confluences, scholars have produced particularly dynamic research on sound at the intersection of environmental and sensory history. In 2005, for instance, Peter Coates (2005, p. 637) published an article in *Environmental History*, wherein he explains why "pricking up our ears" can give environmental historians new understandings of more-than-human nature, environmental threats, and environmentalist causes. Historians have certainly listened and delivered. Alexandra Hui, for instance, examined how bird songs recorded for radio shows influenced the ways listeners understood nature and their place in it. Radio audiences became attuned to what Hui (2021, p. 1372-73) calls, "extinction listening", meaning their ability to give meaning to "a sound that one knows is disappearing or perhaps already gone". Ethnomusicologists have also contributed to the discussion, as illustrated by Michael Silver's (2018, p. 8-9) *Voices of Drought*, wherein he traces how drought has affected music (sparking migration, inspiring songwriters, shaping listening practices, and affecting resources) and how music has affected drought (acting as a vehicle for protest, upholding and challenging understandings of drought, and filling dry landscapes with sound). These interdisciplinary contributions point to how sound deepens understandings of environmental histories.

Taste has also attracted environmental historians' attentions, mainly by way of food. Arguably, no human endeavor has had a more profound impact on the land than collective efforts to hunt, grow, forage, and transport food over millennia. In a forum of essays published in *Environmental History* in 2009,

scholars encouraged environmental historians to not only examine agriculture and supply but also how food shapes identities, cultures, and everyday lives (Chester, 2009; Chester; Mink, 2009; Dusselier, 2009; Mink, 2009). This necessarily includes attention to physical sensations like taste and hunger. In a sweeping historiographic essay published in *The American Historical Review* in 2016, food historian Jeffrey Pilcher focuses on these corporeal interfaces with food, what he calls the "embodied imagination" and defines as "[…] a means for conceptualizing the connections between sensory perceptions of food such as flavor, warmth, and satiety; the material work of preparing and consuming food; and cultural and social abstractions" (Pilcher, 2016, p. 862). Although not considering environmental history in his essay, Pilcher provides insights into how historians have investigated the interface between humans and the land by way of the mouth and belly. As historians have shown, the seemingly straightforward act of consumption is charged with diverse and shifting meaning. That is, taste preferences, whether pleasure or disgust, have histories, and dwelling on taste can provide insights into ideas about class and race.

Hi'ilei Julia Kawehipuaakahaopulani Hobart's monograph *Cooling the Tropics: Ice, Indigeneity, and Hawaiian Refreshment* provides a vivid example of how taste factors into racial and environmental histories. The book traces how people understood ice and sensory coldness in Hawai'i under the shadow of settler colonialism. This means examining "[…] normative thermal relationships between bodies and environments" and teasing out "[…] how discourses about the cold encapsulate ideas about race, modernity, and the senses and in turn help rationalize Indigenous dispossession" (Hobart, 2023, p. 2). The book shows how representatives of US empire used the cooling capacity of ice to conquer the Hawaiian landscape, discipline laboring bodies, and shore up power, comfort, and leisure. Her interdisciplinary study provides a compelling example of how the senses—in this case the taste for coldness—catalyze human thought and action.

Smell often goes hand in hand with taste in a dining experience, but it can also resemble sound in picking up on pollution that endangers human lives.

Historian Melanie Kiechle focuses on the latter in her 2017 monograph, *Smell Detectives: An Olfactory History of Nineteenth-Century Urban America*, about how US urbanites used their sense of smell to detect bad air that they believed caused illness. A nasty "[…] olfactory geography, or smellscape, of a city", sparked efforts to divert industrial and human waste away from waterways that fed into cities in hopes of stopping the spread of cholera and typhus (Kiechle, 2017, p. 62). Bringing together sensory and environmental history, Kiechle argues, allows her to chart how the senses have changed over time, not only due to social and cultural shifts that sensory historians tend to focus on, but also because of environmental factors. The sensory perspective also highlights something environmental historians might overlook: how people experienced a place through the senses and what people did with that information. Resonant with Hobart, Kiechle underscores how sensorial input moves people.

I waited to address sight in environmental history given the legacy of Enlightenment philosophers privileging vision over all other senses. Environmental historians have done an excellent job examining how drawings, photographs, and visual culture more broadly shapes human understandings of and engagement with nature. For instance, historians of colonization in Latin America have shown how naturalists used technologies like painting and collecting flora and fauna to shore up state projects to know, and ultimately possess, new landscapes (Bleichmar, 2006). Historians of the more recent past have also charted how photography and visual culture fueled environmental politics in the twentieth-century United States (Dunaway 2005; Dunaway 2015). Even when environmental historians do not center the visual as a category of analysis, they might use images—such as aerial and satellite imagery—to evidence dramatic changes to landscapes over time (Freitas, 2021, p. 239-278). This incomplete sampling of environmental histories dwelling on sight hopefully, at the very least, indicates the generative outcomes of this approach.

Last, but not least, there is touch. Unlike, the other senses, which reside in the head, touch involves the entire body. As Elizabeth Harvey explains in a 2011 forum on the senses in history (though not focused on environmental

history): "The history of touch is shaped by this anomaly of its corporeal distribution, of being simultaneously everywhere and nowhere" (Harvey, 2011, p. 386). In an edited volume compiled by anthropologist Constance Classen, *The Book of Touch*, there is a short essay by anthropologist David Howes on "skinscapes" and how different cultures, from peoples of the precolonial Andes to those of the nineteenth-century United States, think of contact between humans and landscapes, or the "skin of the earth" (Howes, 2005, p. 30-31). As another example, environmental historian Shawn Miller (2018, p. 21-23) briefly wonders how enslaved peoples, who wore no shoes, may have felt the uneven, cobblestone streets under their feet in nineteenth-century Rio. In a fascinating chapter on "prophets of rain" in a community of Ceará, Karla Patricia Holanda Martins discusses how the local experts use their body to make predictions about the weather. Prophets' close working relationship with the land "[…] opens an encounter with the senses (smell, warmth of the skin, warmth of the termite's home, the vision of the night, the noise of animals moving)" (Martins, 2019, p. 162). Martins (2019, p. 163) aptly notes that "[…] reading the signals of nature is reading with the body" and this encompasses all the senses, including touch. Howes's brief think piece on "skinscapes", Miller's discussion of navigating streets barefoot, and Martin's mention of rain prophets using their skin to predict weather point to the compelling possibilities of integrating touch more fully in histories of landscapes changing over time.

While extensive scholarship exists at the intersection of oral and environmental history on the one hand and environmental and sensory history on the other, less work features oral history in the writing of sensory history, though scholars have pointed to the significance of the senses in remembering and communicating memories. In an essay published in 2016, Paula Hamilton notes the significance of sensory information and writes that this approach to the senses in oral history remains "in its infancy" and much "[…] remains to be worked out in terms of interpretive frameworks" (Hamilton, 2016, p. 114). However, Hamilton encourages the reader to do this work, since it will revise approaches to interviewing and to the conclusions drawn about memory.

While Hamilton has a point, important work has argued for the centrality of the body in daily life and oral history interviews, and in so doing, this corpus gestures to a narrator's embodied experience of the sensate world. For instance, Jeff Friedman, across several works bringing together oral history, performance studies, and dance studies, has argued that interviewees convey crucial information with their body in the course of the performative interview encounter (Friedman, 2005; Friedman, 2014). Thus, the text of an interview transcription fails to capture the meanings made with the body (Friedman, 2014). Centering the physicality of the narrator, Freidman aims to rehabilitate the "embodied experience in the construction and interpretation of history" (Friedman, 2005, p. 47). Resonantly, Richard Cándida Smith demonstrates how artists physically conjure and convey memories in an interview and how such symbolic acts, just like works of art those same narrators produced, can pique the senses by suggestion (Smith, 2002). Building on what Friedman and Cándida Smith argued decades ago, it is worth considering what the more-than-verbal can tell us about human interactions with the more-than-human, as articulated in oral history interviews.

One recent project has importantly centered sensory experiences with the urban environment as explained in oral history interviews. The five-year project, "Sensory Transformations and Transgenerational Environmental Relationships in Europe, 1950-2020" (SENSOTRA), aimed at teasing out generational shifts in "people's sensory environmental relationships" in Brighton (UK), Ljubljana (Slovenia), and Turku (Finland) (SENSOTRA, 2025). To do so, the project relied on the methodology of "sensobiography," which involved several interviewees of different generations walking the city and sharing their thoughts. What emerged in these sensobiographical interviews was the fact that the narrators attach meanings to sensorial information through dialogue (Aula; Silva, 2019). In other words, the senses do not operate in a vacuum. Interviewees used the senses to grapple with their own past and try to communicate those understandings with an audience.

As this overview of existing scholarship has tried to show, a great deal of exciting studies exist on how the land speaks with and through oral history interviewees and how the land sounds, smells, tastes, and looks (with less attention to how it feels) through environmental history. The SENSOTRA project attended to the senses in oral history interviews about the urban environment, opening a path that I seek to follow. Bringing the three fields of oral history, environmental history, and sensory history together spotlights individual bodies in their fullness and their multifaceted interactions with nature. In the next section, I attempt to show how this might work by ceding the stage to Diocina Lopes dos Reis and flagging what sensorial details signal about her engagement with the environment and about historical changes to the landscapes of her life. Rather than focus on a single sense as other environmental historians have tended to do, I examine examples of all five senses in her narrative, including touch, a largely overlooked sense that has much to offer in our efforts to see how landscapes land on bodies.

## Listening to Diocina Lopes dos Reis: A Sensory History of Environment and Activism

I am far from the first person to listen to Diocina Lopes dos Reis. An extensive and rich scholarship exists about *quebradeiras de coco babaçu* (babassu coconut breakers), who suffered under land laws that threatened their livelihoods, organized a social movement and political identity around their unique labor, and successfully helped to halt deforestation and commercialize their products for an international market (Andrade, 2005; Barbosa, 2008; Porro; Veiga; Mota, 2012; Porro, 2002; Santos, 2021). At least one article encountered mentions interviewing "Diocina...resident of Ludovico, Lago do Junco" (Andrade, 2005, p. 180). Although this particular Diocina's last name was not shared in the article, I suspect the scholar met the same compelling narrator as the Museu da Pessoa around the same time. Undoubtedly, the fact that Lopes dos Reis was interviewed by the Museu da Pessoa over twenty years ago evidences

her significance and the relatively rigorous attentions already paid to *quebradeiras* by anthropologists, political scientists, sociologists, and oral historians.

Building on their invaluable work, I revisit the *quebradeiras*, and Lopes dos Reis in particular, because her testimony holds vivid sensorial lessons for environmental historians utilizing oral history methods. As I was brainstorming ideas for this article, I found a collection on the Museu da Pessoa website called, "Filhas de Gaia: Histórias de Gênero e Sustentabilidade em Tempos de Crise Climática" (Daughters of Gaia: Histories of Gender and Sustainability in Times of Climate Crisis). Of the ten interviews in the collection, five had video footage. Lopes dos Reis's interview stood out due to my ongoing interest in 1980s social movements, gender and the environment, and the place of the body in activist struggles. The clicks and choices that led me to her interview could inspire an article itself—about digitalization of historical patrimony and how neoliberal ideologies influence the privileging of stories about social ascension, individualism, and entrepreneurship (Worcman; Rocha, 2024). Although this discussion falls outside the scope of this essay, I wanted to briefly pull back the curtain just before the main character finally makes her entrance.

Listening to Lopes dos Reis in her filmed testimony, you hear a great deal about the more-than-human world of her forested home in Ludovico, a municipality of Lago do Junco in Maranhão. This landscape provided work and sustenance for Lopes dos Reis's grandparents and parents, the only toys she knew as a child, a lifeline as a teenager supporting her sick mother recently abandoned by her father, a crucial household income as a wife, mother, and *quebradeira*, and then as a rallying cry after landowners, emboldened by state laws that sold previously public lands to the highest bidder, violently attacked people like Lopes dos Reis, who depended on babassu coconuts to survive.

Imbuing these natural surrounds with meaning involved the senses. These details bring the Maranhão babassu forests (*Attalea speciosa*) on the eastern edge of the Amazon Basin alive, but they go beyond good storytelling. By sharing her past through tastes, smells, sights, sounds, and feels, Lopes dos Reis points to how her gendered and classed body, her young and later mature body, her

victimized and resilient body experienced the landscape. Her story reminds us that human interactions with the environment necessarily involve (an often forgotten) body, sensing the elements and reacting in kind. As her story unfolds, the environmental history of her surrounds becomes personal and intimate. Changes in the natural world shaped her life lived with and through the senses.

The pleasant tastes and smells of fruit foraged daily operate as symbols of how the woods held beauty, nourishment, and happy childhood memories for Lopes dos Reis. As she recounted:

> I learned to like fruit in the forest, because I did not eat a lot of homemade food. I think that for this very reason, I roamed a lot in the forests. I ate a lot. I ate a lot of guava and *gopel*, which is a very delicious fruit, like an apple. Today we barely find it...but when I was small there were a lot... They have a very delicious smell that is different. I found *gopel* in the thickets because of the smell (Lopes Reis, 2004)[3].

Thanks to her "land-language fluency" (Newfont; Lee, 2017, p. 3), Lopes dos Reis's nose was able to sniff out *gopel*. The forest became her informal school—a place to hone expertise about flora and fauna—due to her class and gender. Elsewhere in the interview Lopes dos Reis relates how school was expensive, so families of her class background could only send some children. Prevailing sexist presumptions about daughters wasting any skills on "writing letters to a boyfriend" meant that Lopes dos Reis's brothers went to school while she stayed mostly with her mom, who worked each day to find babassu coconuts (Lopes dos Reis, 2004)[4]. Instead of books, she read nature with her body (Martins, 2019, p. 163). Lopes dos Reis's memories of taste and smell not only reveal how class and gender shaped her engagement with the land, but also how the land itself had changed. The fruits of her childhood had become scarce. Her intimate understandings of the forest, garnered due to the social codes that determined

[3] Original Portuguese: "Aprendi a gostar de fruta no mato, porque não comia muita comida caseira. Acho que era por isso mesmo que andava muito nos matos, eu me alimentava demais. Eu comia muita goiaba e gopel, que é uma fruta muito gostosa, parece uma maçã. Hoje nós quase não a encontramos, mas no nosso assentamento nós temos achado algumas. Mas quando eu era pequena tinha muita."

[4] Original Portuguese: "fazer carta para namorado"

where her gendered and classed body could go, tells us something about the environmental history of the area where *gopel* once thrived, and now, has mostly disappeared.

Happy early memories gave way to harder times, perhaps best encapsulated by memories of touch: Lopes dos Reis's small hand filled with coconut seeds. This was a distinctly classed memory of child labor common to rural families trying to make ends meet. She reminisced:

> I started to break coconuts at seven years old. My mom would part the coconut on the axe. She was scared for me to open the coconut because I could cut my fingers. And then I kept struggling, managing to get a little bit out, a hand full of seeds, but it was already a help. Then I started training and, at thirteen years old, I already managed to help more (Lopes dos Reis, 2004)[5].

Breaking babassu coconuts involved complex and taxing work with the hands. Little fingers could be hurt in parting the coconut and, so, were protected to help press, scratch, and peel out seeds. Hard won seeds likely felt firm and unyielding in a little fist, providing tactile confirmation of a job well done. These experiences of touch and struggle went on for days, months, and years, honing techniques until Lopes dos Reis could extract more of what the babassu coconut had to offer her family.

Indeed, deploying her little hands became necessary, as Lopes dos Reis and her family heard new, unfair claims that ultimately exploited their labor. With some bitterness, she explained:

> In the era of [José] Sarney [as governor of Maranhão (1966-1970)], he sold all the land of Maranhão. Some people showed up and said: 'Look, from now on you all cannot work in these lands anymore [or] set up farms without talking with me, because I am the owner of the land, I bought this entire region', even though it was not true.... And the poor farmer was left destitute, working

[5] Original Portuguese: "Eu comecei a quebrar coco com sete anos. Minha mãe partia coco no machado, ela tinha medo de eu abrir coco porque eu podia cortar meus dedos. E aí eu ficava lutando, conseguia tirar um pouquinho, uma mão cheinha de amendoa, mas já era uma ajuda... Depois fui treinando e, com 13 anos já conseguia ajudar mais."

> for half his wages. That was when my parents began to suffer (Lopes dos Reis, 2004)[6].

The precarity Lopes dos Reis and her family felt was a distinctly classed experience and the result of loaded land policies. In June 1969, Law 2,979 or "Sarney Land Law" (Lei Sarney de Terras) passed with the stated goal of "modernizing" agriculture by making underutilized land productive (Amaral Neto, 2021, p. 151-52). Common lands traditionally used by rural families for small scale subsistence agriculture, foraging, and extraction of babassu coconuts were sold to landowners, who used them for raising cattle or plantation agriculture. This led to the sudden claims that Lopes dos Reis heard in the 1970s, which then forced her, her family, and her community to give up half of what they extracted to supposed owners.

The burdensome reality of this law, as captured by the aggressive words Lopes dos Reis recalled hearing, contrasted sharply with what Sarney claimed his government would do for citizens. Famed Brazilian filmmaker Glauber Rocha made, *Maranhão 66 – posse do governador José Sarney* (Maranhão 66 – inauguration of governor José Sarney), featuring the newly elected Sarney's speech to crowds of supporters. With a populist tone, Sarney declared, "Maranhão can no longer bear... the contrast of its fertile lands, its humid valleys, its swaying babassu palms, its fabulous potential riches" and the poverty of its people (Rocha, 1966). While Sarney's disembodied words echo as a soundtrack, Rocha toggles between footage of the natural riches that Sarney cited and the desperately poor and sick people in unsanitary hospitals, on dilapidated streets, or wading through garbage heaps. As the speech draws to a close, the film ends with the sounds of samba on the streets, a performative reflection of the desperate hope that Sarney will differ from oligarchic governors of the past. The film has a profoundly ambivalent echo, however. As scholars have shown, Rocha was

[6] Original Portuguese: "Na época do Sarney, ele vendeu tudo quanto foi terra do Maranhão. Surgiram umas pessoas que diziam: "Olha, a partir de agora vocês não podem mais trabalhar nessas terras, colocar roça sem falar comigo, porque eu sou o dono da terra, eu comprei essa região toda", muito embora não fosse verdade. Eles chegavam, cercavam e dizia que eram donos. E o pobre do lavrador ficou deserdado, trabalhando pela meia. Foi quando meus pais entraram nesse sofrimento".

suspicious and critical of Brazilian populism. The shocking "hunger aesthetic" of the footage Rocha displayed ultimately undermines the promises Sarney articulated (Ferreira Junior; Gusmão; Mendes; Silva, 2021). As Lopes dos Reis's experience and those of many others like her show, dissonance between Sarney's promises and the dire circumstances on the ground would be the sonic order of the day.

Soon after hearing new bogus claims of ownership, Lopes dos Reis married and tried to have children, just as the landscape became catalyst and backdrop to painful experiences with violent touch. Landowners attacked people like Lopes dos Reis with tragic consequences:

> Our life was very difficult. We had nowhere else to plant our crops, and the owners wouldn't let us. So, I went to work in the woods, pregnant with my first daughter. There I was severely beaten by the foreman, the owner of the land, and I got sick. The girl was born sick and didn't survive. She died three days later. I was treated badly by the foreman because the owners of the land raised cattle on the land and didn't want us to break coconuts there. They said the babassu belonged to them and we were stealing them. But we had no other option.... The foreman said I shouldn't break open the coconuts...and he sent a cow to catch me. It ran after me a lot, but it couldn't catch me. So the foreman took a leather chord, which he used to beat the cattle, and tried to beat me. I had to run a lot. It's very bad for a pregnant woman to run so much in the woods. I got sick.... I became pregnant again with another girl. She was born sick, didn't survive and died (Lopes dos Reis, 2004)[7].

Although Lopes dos Reis skips the gory details, she articulates the devastating extremes her body went through during taxing physical labor,

[7] Original Portuguese: "A nossa vida era muito difícil. Não tínhamos mais onde colocar a roça, os donos não deixavam mais. Então eu fui trabalhar no mato, grávida da minha primeira menina. Lá eu fui muito agredida pelo capataz, do dono da terra, e fiquei adoentada e a menina nasceu doente e não sobreviveu, depois de três dias ela morreu. Fui mal tratada pelo capataz, porque os donos das terras criavam gado nelas e não queriam que nós quebrássemos o coco por lá. Eles diziam que o babaçu era deles e estávamos roubando. Mas nós não tínhamos outra opção. E lá tinha muito gado valente, as vacas até corriam atrás de nós. O capataz disse que não era para eu quebrar coco e ... ele colocou uma vaca para me pegar. Ela correu muito atrás de mim, mas não conseguiu me pegar. Então o capataz pegou uma pinhola, que ele usava para bater no gado, e queria me surrar. Tive que correr muito. Uma mulher grávida correr tanto dentro do mato é muito ruim, fiquei doente. Terminei o resguardo e logo fiquei grávida de novo de outra menina. Ela também nasceu doente, não resistiu e morreu.

beatings, running from cattle, and birthing and losing her babies. As her body was touched and responded in kind, Lopes do Reis felt acutely—whether sore muscles, physical pain, or emotional turmoil. Sadly, these were common experiences for rural workers of her class. The senses, and the feelings provoked, haunt her words, emotionally charging what might otherwise appear to be a straightforward story of class struggle as a result of ascendant ranching. Moreover, her narrative transforms environmental change into a story of gendered violence as a pregnant woman with much to lose found herself in the crosshairs of a veritable war.

Undoubtedly, Maranhão became a disturbing sight to see with dramatic scenes of felled palm trees and outrage provoked by their destruction. Women, who predominantly broke babassu coconuts, banded together. The landowners retaliated not only by attacking the women, but also the trees. What was worse, they paid men in the community to cut down the very trees that many wives depended on for babassu coconuts. As Lopes dos Reis put it:

> Then we started fighting with our husbands at home. And it was a tough battle... getting them to believe that... the money they earned cutting down the palm trees wasn't even enough to feed them for one day. Some obeyed. In my husband's case, he never did anything, saying that he preferred... mining. We tried to raise awareness among a good number of people to not cut [the babassu] down, but the landowners found another way. They used tractors. And we, a bunch of women... stood in front of the tractor. It was a disaster (Lopes dos Reis, 2004)[8].

Lopes dos Reis paints a vivid picture of men cutting down trees in public and clashing with their wives in private. Equally striking is her description of what eyes might have seen at a particular historical moment: "a bunch of women" standing in front of tractors to defend babassu palm trees. These visual

[8] Original Portuguese: "Aí a nós começamos a luta com os maridos em casa. E foi uma batalha pesada... fazer entrar na cabeça dele ... que o dinheiro que eles ganhavam para derrubar as palmeiras não dava nem para a alimentação de um dia. Uns obedeceram. No caso o meu marido, ele nunca fez nada, dizia que preferia ... esse negócio de garimpo. Nós tentamos conscientizar uma boa massa de gente para não derrubar, mas os fazendeiros arrumavam outra forma, colocavam o trator. E íamos, aquele monte de mulheres... ficávamos na frente de trator. Era uma calamidade."

images highlight the gendered valences of the struggle. As other scholars have confirmed, women were on the frontlines of the fight, contesting masculinist projects of land destruction (Andrade, 2005, p. 183-187; Barbosa, 2008, p. 267; Porro, 2002). This environmental history of Lago do Junco in Maranhão included dramatic confrontations over deforestation, including the gendered fault lines that divided a community already split by class.

Things deteriorated before they improved, and sensorial milestones appeared at every turn. Showing the impossibility of truly separating out the senses, Lopes dos Reis mentions, in quick succession, the sounds and touches of living through the landowner's terror-filled campaign against resistive peasants:

> [Bishop] Dom Pascazzi helped to denounce the situation, because at that time many rural workers were killed, and there were many gunmen in the region. There were also women who were killed at that time. He made a complaint once in Rio de Janeiro, to a radio station. It seems that it was Globo, which was Rádio Globo da Amazônia, something like that. But at that time, from 1986 onwards, it was very difficult. We slept a lot in the woods. And because of that, terrorism arose in our region; the landowners [*fazendeiros*] tore down and burned down the houses of the residents, expelled them, and kidnapped workers. We couldn't sleep. We spent six months sleeping on the ground, because it was the most monstrous shooting in the world [with] more than 500 shots fired per hour (Lopes dos Reis, 2004, grifo nosso)[9].

These sensory details point to classed experiences since progressive priests advocated for impoverished faithful in the 1980s and since sleeping on hard surfaces in dangerous conditions has not been uncommon for lower class rural and urban folks (Porro; Veiga; Mota, 2012, p. 130; Sedrez, 2014, p. 154-157; Ursin, 2017). The soundscape and "skinscape" of the period were shaped by

[9] Original Portuguese: "O Dom Pascazzi ajudou a denunciar, porque nessa época mataram muitos trabalhadores rurais, tinham muitos pistoleiros na região. Tiveram mulheres que foram mortas também nessa época. Ele fez uma denúncia uma vez no Rio de Janeiro, para uma emissora de rádio. Parece que era Globo, que chamava Rádio Globo da Amazônia, uma coisa assim. Mas essa época, a partir de 1986, era difícil demais. Nós dormimos muito no mato. E por conta disso, gerou um terrorismo na nossa região, os fazendeiros derrubaram e queimaram casa dos moradores, expulsavam, sequestravam trabalhadores. Nós não podíamos dormir, passamos seis meses dormindo todo mundo no chão, porque era o tiroteio mais monstruoso do mundo, saía mais de 500 tiros por hora."

Lopes dos Reis's class and gender—a mother depending on a supportive bishop and the hard ground to protect her children (eight months, three years, and four years at the time) from bullets flying overhead (Howes, 2005, p. 30-31).

In the late 1980s, the tide shifted thanks to local efforts and larger regional, national, and international changes. Regionally, rubber tappers in the western Brazilian state of Acre fought to halt deforestation linked to road building projects through the Amazon Rainforest. Chico Mendes became the face of this movement, speaking in Brazilian cities, and eventually in Washington DC, to politicians and bankers. Before his assassination in December 1988, he convinced powerholders to stop funding projects that threatened rubber tappers' livelihood (Sedrez, 2014). Nationally, Brazil transitioned from dictatorship to democracy with a new constitution completed in 1988. This democratizing process encouraged "participation and diversity", with the *quebradeiras*' movement as one of many social movements in the more open political climate (Porro; Veiga; Mota, 2012, p. 132). Internationally, the environmental movement moved mainstream as even the World Bank acknowledged the need to rethink development projects that destroyed ecosystems, albeit with ambivalent outcomes (Goldman, 2001).

In 1988, the same year as Mendes's death and the new national constitution, Lopes dos Reis noticed improvements in the babassu forests. And yet, the recent conflicts left a visual marker that Lopes dos Reis could see all around her:

> In 1988 things began to improve a bit. It appears that authorities listened a little and decided to expropriate some areas and hand them over to the workers.... So we sat down and discussed what we were going to do, because some areas were degraded and only had grass. We needed to decide what to do to make this land productive (Lopes dos Reis, 2004)[10].

[10] Original Portuguese: Parece que as autoridades ouviram um pouco e resolveram desapropriar umas áreas e entregar para os trabalhadores.... Aí nós mesmos fomos sentar e discutir o que íamos fazer, porque umas áreas estavam degradadas, só tinha capim. Precisávamos decidir o que faríamos para essa terra produzir.

When the dust settled, many babassu palm trees and considerable soil richness had been lost. Only grasses remained. Lopes dos Reis captures a distinct snapshot in the environmental history of the babassu forests by recording the barren visual landscape she saw in the late 1980s.

Though the worst bloodshed was behind them, the struggle continued; for instance, Lopes dos Reis decided to combat hunger, especially amongst children. She worked with the organization Pastoral da Criança to ensure mothers knew about sanitizing water and cooking nutrient-rich meals for their young ones:

> We would get our own plants: cassava leaves, manioc, rice husks, pumpkin seeds, peanuts... We would crush everything with eggshells and add a spoonful to the food. The children would become healthy just by looking at it. They would be free of worms. Even today, many women come for miles for the multi-mixture. Today in our region there are no cemeteries for children, only old people (Lopes dos Reis, 2004)[11].

The "embodied imagination", meaning the sensory perception of food, can be about hunger pangs as much as palate (Pilcher, 2016, p. 862, 880-886). Hunger is a classed experience that can be a catalyst for action. Memories of her inability to feed her hungry children moved Lopes dos Reis to tears during her interview; these strong emotions undoubtedly factored into her fight against the landowners in the 1980s and to combat malnourishment with the Pastoral da Criança. The classed experience of children's hunger and the gendered experience of a mothers' anguish, as well as the pleasure of consuming and providing the ultra-nourishing "multi-mixture" are also part of the environmental history of Maranhão's babassu forests.

In addition to her work with the Pastoral da Criança, Lopes dos Reis and other *quebradeiras* organized the collective, Associação de Mulheres Trabalhadoras Rurais (Association of Rural Worker Women, AMTR), to help sell

[11] Original Portuguese: Nós pegávamos as nossas plantas mesmo: folha de mandioca, macaxeira, o cuim do arroz, sementes de abóbora, amendoim... Nós pisávamos tudo com casca de ovo e colocava uma colherada na comida. A criança ficava saudável que só vendo. Elas ficavam livres de verminose. Ainda hoje, muita mulher corre léguas atrás de nós pedindo a multimistura. Hoje na nossa região não tem cemitério de criança, só de velho.

the products they derived from babassu coconuts, especially soap. Women had long produced soap from babassu coconuts, but the environmental and political context gave new meanings to what became known as Sabão Babaçu Livre. As Lopes dos Reis explained:

> My mother and grandmother also made soap with babassu, but it was a little different from the recipe we use today. Back then, they used ash residue and we added caustic soda. Now, our dream is to use some of the ingredients they used back then, which gave clothes a scent, which is another plant from the region, *oriza*. When my mother and grandmother washed clothes with soap, they would put indigo and *oriza* leaves in a cloth and dissolve them in water. The clothes on the clothesline would perfume the yard. It was a very nice smell. They would also put leaves inside the trunks, because at that time there were no wardrobes (Lopes dos Reis, 2004)[12].

Previous generations could use wood ash because there were more trees. "Because there was no more wood," they used caustic soda, Lopes dos Reis (2004) noted at another moment in the interview. Even though deforestation and land usage meant wood ash was no longer viable, Lopes dos Reis and her colleagues hoped to use some *oriza* of the past to recreate the latter day "smellscape" (Kiechle, 2017, p. 62). The fact that the sweet scent of *oriza* could permeate yards, clothes, trunks, and memories demonstrates the power of the plant and the soap containing it. It is only fitting that the makers of Sabão Babaçu Livre wanted to include *oriza*, a kind of olfactory testament to their resilience and ability to shape worlds.

Lopes dos Reis finishes the interview with the material culture of her life. Among the items on display, we see a babassu coconut, seeds like the ones

[12] Original Portuguese: "Minha mãe e minha avó também faziam sabonete com o babaçu, mas era um pouco diferente da receita que usamos hoje. Naquela época elas usavam rescaldo de cinza e nós colocamos soda cáustica. Agora, o nosso sonho mesmo é usar alguns ingredientes que usavam antigamente, que dava um aroma na roupa, que é outra planta da região, a oriza. Quando a minha mãe e a minha avó lavavam roupa com o sabão, elas colocavam anil e folhas de oriza num paninho e desmanchavam na água das roupas. As roupas no varal perfumavam o quintal, era um cheiro muito bom. Elas também colocavam folhas dentro do baú, porque nessa época não guarda-roupa."

her small hands first held decades earlier, and the soap that over a hundred women in AMTR successfully produced and sold to buyers nationally and internationally, including in the United States and the United Kingdom. Lopes dos Reis's hands and those of the interviewer handle the products, softly running their fingers over glossy packaging as they discuss.

The senses had been present throughout her interview, but this conclusion invites us to wonder what we miss, limited to only sight and sound and given the interviewer did not explicitly inquire about the senses. We heard that babassu oils were used in cooking, but what did the food taste like when prepared in this way? Did tastes change over time like the soap smells did? We can only wonder about the smells, sounds, and sights that were involved when standing in front of the tractor during the war over the trees. Did Lopes dos Reis see or hear how animals were affected by the battles? What does the babassu coconut shell and interior feel like?

This information helps both outsiders and insiders. For outsiders like me, attending to the senses accentuates how little I know while also providing useful common ground. As we move through our day, all humans take in environmental information through the senses. With that shared experience, historical encounters with nature might appear more familiar and feasible to analyze. For insiders, like brilliant scholars who have spent extended time with the *quebradeiras* due to family connections, shared origins, or extended ethnographic work, sensory information in oral history interviews might productively complement what they already know about the land and struggles of Maranhão (Porro, 2002; Andrade, 2005; Santos, 2021; Amaral Neto, 2021). I can only imagine what Lopes dos Reis's narrative might allow deeply embedded scholars to tease out about how and what the land divulges to receptive eyes, ears, noses, tastebuds, and skin surfaces.

Ultimately, a sensory focus reminds us that the people and places populating history have multiple and complex dimensions. Sensing, gendered, and classed bodies moved through and altered environmental histories. They shaped and were shaped by aromatic or stinky, stunning or banal places that

changed because of human activities. Oral histories are filled with such sensorially charged memories of the environment, if we would only listen.

## Concluding Thoughts

I close by reiterating the main take away and with a suggestion for future oral history interviewers examining environmental histories: ask questions about the senses. If dealing with existing interviews, pay attention to sensory histories already there. As illustrated in my analysis of Diocina Lopes dos Reis's 2004 interview with Museu da Pessoa, such insights often crop up naturally in the process of remembering places and experiences of a personal past. However, in terms of future interviews, sensorial details could be fleshed out with some prompting. Doing so will only enrich understandings of landscapes and the distinct ways people of different backgrounds interacted with them across time.

In this era of accelerating climate change, sensory information of place becomes even more urgent. Even in the half century that Lopes dos Reis charted in her interview, her home witnessed loss to babassu trees, *gopel* fruit, and *oriza* plants, for instance. From one generation to the next, the landscapes, soundscapes, smellscapes, skinscapes, and tastes of Lago do Junco, Maranhão changed. Sensory information in oral history interviews, then, might offer the only traces of forever altered environments. Indeed, I encountered Lopes dos Reis's home from afar by way of a recorded interview posted online; but even if I were writing these lines in Lago do Junco, I would not see the same landscape Lopes dos Reis knew and described. As historian Catherine Tatiana Dunlop (2021, p. 1153) writes, "In the Anthropocene, many of the world's diverse local landscapes are becoming relics of the past, no longer available for historians who want to visit, experience, and learn from them". With that reality, sensory rich oral history interviews might be the only way for historians to reach for and grasp a place.

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