

# Ahuehuete, Water Elder: Drought, Hope and 'Comunalidad' in Santa María del Tule, Oaxaca, Mexico



## ABSTRACT

Santa María del Tule, Oaxaca, Mexico faced a unique dilemma in 2022. An unprecedented drought forced the community to choose between providing water to its residents or to the Tule Tree, which makes Tule a touristic destination by virtue of being the stoutest tree in the world. Considering that over 75 per cent of the people in Tule depend on tourism for income, the drought highlighted the interdependence between Tule's human residents and the Tule tree. The drought announced the ecological precarity that Tule will be subjected to in coming years, making the future a rather uncertain horizon. Despite this, people in Santa María del Tule are willing to hope for better times. Tule residents find hope in 'comunalidad', a widespread value in the state of Oaxaca that is oriented towards autonomous governance and collective action.

## KEYWORDS

drought, precarity, Capitalocene, hope, comunalidad

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## INTRODUCTION

Nothing could have been as telling as the gradual shift in tone when I spoke with Touristic Policeman Héctor<sup>1</sup> during each of my visits to Santa María del Tule. In less than two months, the confidence and security that infused his perspective slowly transformed into doubt and worry. In the municipality of Tule, all sense of normality broke down during my fieldwork, which took place between March and June 2022. Simply put, we did not know when it was going to rain. Tule was going through an unprecedented period of drought. When I first arrived, there was a community consensus: *Tule is a place of water abundance*, and the fountains and gardens that thrive in its touristic plaza put this on display. After a month, in April 2022, that abundance was no longer a certain fact: 'We are a community that has never lacked water, but we are experiencing it now, we are running out of water and the times are tough', Policeman Héctor

1 For the purpose of protecting the research participants' anonymity, where possible their names have been kept confidential and pseudonyms have been assigned accordingly.

shared with me. For him, as for the rest of Tule's population, those were times of exception. Life was 'outside normality, for there [was] still no rain'. The drought in 2022 was exceptional. The average precipitation rates in Tule have plummeted in the last years due to climate change, but 2022 signalled an entirely new era. By late May, there had been only two days of rain at a time of the year when 44 or 45 days of rain were to be expected based on historical records.<sup>2</sup> It became impossible to escape the reality that the times we are living in – in Tule as much as anywhere else – are, indeed, outside 'normality'.

Water scarcity is a particularly sensitive topic in Tule. For its approximately 9,000 residents, life is highly dependent on tourism, which accounts for over 75 per cent of all economic activity.<sup>3</sup> The Tule Tree, locally also known as *Árbol de la Vida* (Tree of Life) or as *Yà Gits* in Zapotec, is the main attraction, a 1,500–2,000-year-old *ahuehuete* (or 'Montezuma Cypress', *Taxodium mucronatum*)<sup>4</sup> that enjoys the title of being 'the stoutest tree in the world' due to its 58-metre trunk circumference (Figure 1).<sup>5</sup> An estimated 500–600 people visit Tule each week to see the tree, and this number can climb to the thousands during peak tourism periods, such as the 'Guelaguetza' every July.<sup>6</sup> This creates a relationship of interdependence between Tule's human population and the Tule Tree. Keeping the tree alive entails keeping the community thriving and vice versa. The tree requires significant amounts of water to stay alive, which is typically not a problem during the wet season. During dry periods, however, the tree has to be manually watered for up to twelve hours each day, relying on the community's groundwater reserves. An estimated 2,000 litres of water are used daily on the tree,<sup>7</sup> for its age, in tandem with the progressive depletion of groundwater in

2 Weather Atlas. 2022. 'Previsión meteorológica y clima mensual Santa María de Tule, México'. *Weather Atlas*, 14 May: [https://www.weather-atlas.com/es/mexico/santa-maria-del-tule-clima#rainfall\\_days](https://www.weather-atlas.com/es/mexico/santa-maria-del-tule-clima#rainfall_days) (accessed 2 Aug. 2023).

3 Ayuntamiento Constitucional de San Santa María del Tule, 'Plan Municipal de Desarrollo de Santa María de Tule, Valles Centrales, Oaxaca' (2011).

4 In fact, this tree species is Mexico's national tree.

5 Ursul Thiemer-Sachse, 'El Árbol de Tule. Un monumento de importancia en el ideario de la gente indígena de Oaxaca', *Anthropos* 111 (1) (2016): 99–126.

6 Oaxaca Global, 'Busca El Tule ser Pueblo Mágico', *Oaxaca Global*, 3 Jan. 2019: <http://corporativonavarro.com.mx/3.1.19.html> (accessed 2 Aug. 2023).

7 Thiemer-Sachse, 'El Árbol de Tule'.



FIGURE 1.

The Tule Tree and the touristic plaza built around it on a sunny day, April 2022.

Source: Photo by author.

Tule, has fed concerns almost for two decades for those who believe that the tree might dry up and die if it is not watered on a daily basis.<sup>8</sup>

Thus, in a growing context of drought and overall water scarcity, Tule faces a complicated dilemma. The community depends on the tree, and the tree needs water, but so do the people, and there might not always be enough water available for all. Tension is slowly growing in Santa María del Tule amidst this crossroads. Due to global climate change, marked by temperatures that are expected to keep rising as droughts become longer,<sup>9</sup> the break in normality that Tule experienced in 2022 is

8 Aitor Pedrueza, 'Árbol del Tule de Oaxaca, el más grande y viejo de México', *El Giroscopo Viajero*, 5 Jan. 2022:

<https://elgiroscopo.es/arbore-del-tule-de-oaxaca-el-mas-grande-y-viejo-de-mexico/> (accessed 2 Aug. 2023).

9 IPCC, 'Climate Change 2022: Impacts, Adaptation, and Vulnerability (Summary For Policymakers)'. In H.O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Lösckke, V. Möller,

likely just a beginning. The community's response would set a precedent that might determine the ecological fate of Tule if nothing else were to change. Hence, I ask in this article: how did people in Tule respond to the drought in 2022 and what social factors influenced this? Where can hope be found? Is hope worth looking for?

I engage these questions through the lens of affect, 'an embodied intensity' 'occurring at the interface of all kinds of bodies',<sup>10</sup> for a couple of methodological reasons. Thinking through affect is attuned to the fact that, to the Tule community, the drought was embodied and emotional before anything else. But, more importantly, inquiring through the lens of affect, Juno Parreñas reminds us, is particularly useful 'when it comes to beings that do not speak, [for] feeling and touching are crucial forms of transspecific connection'.<sup>11</sup> In the case of the Tule Tree, affect is best suited to understand the community of Tule as a more-than-human interdependent network or, as Eduardo Kohn calls this, an 'ecology of selves'.<sup>12</sup> After all, looking at affect across transspecific relationships 'requires understanding how every body in relation to another is vulnerable to the other, and yet that mutual vulnerability entails risks and consequences that are unequally experienced'.<sup>13</sup> Affect allows us to notice the subtleties of the interdependent relationship between humans and the Tule Tree, attuning our eye to the multi-species ethical dilemmas that the drought triggered in 2022.

Likewise, I also engage with these questions using an anthropology 'of the future'. Understanding how people interpret the future – and how they feel about it – is key when looking at any form of social organisation in the present. This was particularly salient in the context of the 2022 drought. It brought upon a climate of uncertainty and precarity

A. Okem and B. Rama (eds), *Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, 2022).

- 10 Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham NC: Duke University Press, 2022); Juno Parreñas, 'Producing affect: Transnational volunteerism in a Malaysian orangutan rehabilitation center', *American Ethnologist* 39 (4) (2012): 673–87.
- 11 Parreñas, 'Producing affect'.
- 12 Eduardo Kohn, *How Forests Think: Toward an Anthropology beyond the Human* (Berkeley: University of California Press, 2013).
- 13 Parreñas, 'Producing affect'.



– ‘insecurity in life: material, existential, social’ – that made any notion of ‘the future’ in Tule unstable.<sup>14</sup> During my fieldwork, no-one knew when it would rain, how much water would eventually come, or when or *whether* to sow any seeds, in the case of Tule’s agricultural demographic. No one is sure about how much water remains underground, nor how much longer the tree can remain alive, much less how life would look if the tree ever dies. The drought in Tule made visible a condition of ecological precarity, rendering the uncertainties of the future a rather generative affective force. In that sense, I propose thinking about affect not only at the interface of material bodies, but also in its temporal iteration as well. I suggest looking at the future as an ‘affective temporality’, a time with social and emotional agency that, in the case of Tule, anchored how the community responded to the toughest drought they had ever experienced.

The responses I found to the drought in Tule varied. For the tourist eye, not much changed. The display of water abundance that was put on stage near the tree remained untouched, given that the fountains and gardens in the touristic plaza remained fully operational and normality was insistently performed. For residents, however, things were different. Vulnerability to the drought was simply inevitable. There was no single unitary experience among the residents of Tule. Sadness, hope, nostalgia, fear, powerlessness, indifference and optimism were all part of the mix. A common thread, however, was an acknowledgement that our climate is changing, and our survival is at stake. This accounts for the rationing system implemented in Tule in May 2022, before it eventually rained, by the Municipal Government. This system determined on a rotational basis which households would have access to water on specific days of the week and which would not. There simply was not enough water for all, and the way Tule presented itself to tourists intentionally sought to disguise this fact. Behind the scenes of normality that were curated in Santa María del Tule during this time, climate change was taking its toll.

‘Humans’, in the broadest sense of the word, can no longer ignore the consequences of our effect on the environment, for we are interdependent with it, and caring for ‘ourselves’ cannot be understood as

14 Anne Allison, ‘Ordinary refugees: Social precarity and soul in 21st century Japan’, *Anthropological Quarterly* 85 (2) (2012): 345–70.

merely a human act.<sup>15</sup> In Tule, for example, the Oaxacan cultural and political principle of *comunalidad* (communality) is needed now more than ever, which – I argue – can and must be extended to species other than humans as well. The Tule Tree is an embodiment of this, acting as a community hub that will continue to offer hope for as long as it stands. This hope is rooted in the belief that collective action has the power to change our ecological fate. In Tule, the tree offers an avenue to explore the possibilities for life in alignment with Haraway’s provocations:

How can we think in times of urgencies without the self-indulgent and self-fulfilling myths of apocalypse, when every fiber of our being is interlaced, even complicit, in the webs of processes that must somehow be engaged and repatterned?<sup>16</sup>

The future of Tule is complicated, but people have hope. And, as long as there is hope, there is possibility.

## METHODOLOGY AND POSITIONALITY

My fieldwork entailed ten visits to Santa María del Tule while residing in Oaxaca City over a period of four months, between February and June 2022, and two more visits in July 2023. I had ongoing conversations with twelve interlocutors, with four of whom I conducted long-form structured interviews. My interlocutors came from all walks of life, including a *tejate* vendor,<sup>17</sup> a tree caretaker, public servants in the municipal offices of Culture, Sports and Ecology, and even the Municipal President, Gregorio Peralta Vázquez, to name a few. During my visits to Tule, I sought to foreground relationships with the community – human and otherwise – to follow Navaro’s call for ‘relationality’

15 By ‘we’, the author generally refers to humans, though they do not presume to conflate all of humanity in a single ecological role, as discussed later in the paper. Accordingly, they acknowledge that this use of ‘we’ may feel especially inapplicable to those who have long sought to transform their role in ecological relations or among those who are exposed to ecological devastation beyond their control.

16 Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham & London: Duke University Press, 2016).

17 ‘Tejate’ is a traditional drink in the state of Oaxaca. It is made using a mixture of ground corn, cacao and the ‘mamey sapote’ fruit.



FIGURE 2.

'Río Salado' used to be a major water source and community hub in Santa María del Tule. Today it is essentially a dumpsite, completely dry except for the wastewater that is poured into it, mostly coming from the residential neighbourhood 'El Retiro'.

Source: Photo by author.

as a central and necessary aspect of conducting ethnographic research.<sup>18</sup> This not only involved establishing relationships with my interlocutors, but also becoming familiar with the community's ecological landscape and allowing myself to establish more-than-human emotional connections and be *affected* by these. For example, a crucial moment of my fieldwork entailed engaging with my own sadness and mourning upon encountering the Río Salado, a river that used to be a community hub in Tule but has now become virtually a dumpsite since wastewater began being poured in it just over fifteen years ago (Figure 2).

Foregrounding relationality in this research was crucial not only because of the depth that it allowed me to reach with some of my interlocutors, like *El Policía Turístico* Héctor (Policeman Héctor), but also

18 Yael Navaro, *The Make-Believe Space: Affective Geography in a Postwar Polity* (Durham & London: Duke University Press, 2012).



because it gave me access to the community in ways that balanced the risks involved with doing research. Rural Mexico can be a dangerous place to conduct research, and miscalculating the risks can be costly. The recent disheartening news of the murder of Gabriel Trujillo – a Mexican-American UC Berkeley Ph.D. candidate – for simply ‘being in the wrong place’ while researching native flora in Northern Mexico serves as a reminder that navigating our fieldsites with caution can be, rather literally, a matter of life or death.<sup>19</sup> After all, Mexico is one of the deadliest places in the world for journalists, ecologists and researchers, and Oaxaca is no exception.<sup>20</sup> Thus, having the support of my interlocutors while conducting my research and being guided as I learned more about Tule was a central pillar of my methodology, and acted as a pre-emptive safety measure while conducting my fieldwork in 2022.

And yet, my positionality in this research still entailed *both* vulnerability and privilege. Beyond the vulnerability involved in doing research in rural Mexico, I also understood vulnerability through the eco-feminist premise that there is a ‘common vulnerability to all living beings’, especially in the Global South, that is inherent to our current times of climate change.<sup>21</sup> This vulnerability, however, must be understood in a graduated manner. I did not reside in Tule during the drought but in Oaxaca City instead, and my institutional protection in being affiliated with a Global North university at the time meant that my access to water was far more secure, both short and long-term. Likewise, I grew up in Mexico City, a metropolitan urban hub that benefits from extractivist relationships and

19 CBS News, ‘California Ph.D. student’s research trip to Mexico ends in violent death: “He was in the wrong place”’. *CBS News*, 23 June 2023: <https://www.cbsnews.com/news/gabriel-trujillo-death-california-scholar-research-trip-mexico-ends-death-suv/> (accessed 2 Aug. 2023).

20 El País, ‘Acoso y violencia: la realidad de hacer periodismo en México’, *El País*, 14 Feb. 2023: <https://elpais.com/mexico/2023-02-14/acoso-y-violencia-la-realidad-de-hacer-periodismo-en-mexico.html> (accessed 2 Aug. 2023); Georgina Zerega, ‘México se convierte en el país más mortífero para los ambientalistas con 54 asesinados en 2021’, *El País*, 29 Sept. 2022: <https://elpais.com/america-futura/2022-09-29/mexico-se-convierte-en-el-pais-mas-mortifero-para-los-ambientalistas.html> (accessed 2 Aug. 2023); Arlene Pimentel, ‘Oaxaca, lugar 11 nacional en agresiones contra periodistas, revela Artículo 19’, *El Universal*, 3 May 2023: <https://www.eluniversal.com.mx/estados/oaxaca-lugar-11-nacional-en-agresiones-contra-periodistas-revela-articulo-19/> (accessed 11 Dec. 2023).

21 Alejandra Araiza-Díaz and Verónica Araiza-Díaz, ‘Hacia una revolución del oikos: repensar la familia y abrazar los parentescos raros de Haraway’, *Clivatge* 9 (2021).

‘internal colonialism’ within Mexico.<sup>22</sup> This asymmetrical power relationship between Mexico City and rural Mexico is *to a degree* responsible for the ecological precarity of our times, as it responds to the principles of cheap, exploitable, disposable and violable nature that brought us here.<sup>23</sup>

Having grown up under the state’s protection entailed a responsibility as a researcher not to reproduce the power relations designed by the state in my interactions with my interlocutors. To that end, I sought to centre the shared vulnerability that ecological precarity presents to us all, even if to different degrees, when interacting with my interlocutors. And above all, in alignment with Andrea Ballester’s rejection of deterministic and apocalyptic projections of our water futures, I found it necessary to sustain a ‘reluctance to close off the narrative’ of a futurity that is a mutual entanglement, seeking for glimpses of hope and possibility instead.<sup>24</sup> As my interlocutors deeply believe, ‘our future is *still* in our hands’, but we have to act now and, most importantly, ‘we have to be united’.

## ‘THE TREE BRINGS LIFE’: PERSONHOOD AND INTERDEPENDENCE IN SANTA MARÍA DEL TULE

Place, personhood, and community in Tule are understood in ways that go far beyond ‘the human’. Its cultural, economic, social and ecosystemic balance is intertwined across multiple species, all of which come together at the Tule Tree, the protagonist. Venancio, an artisan in the community market, explained the extent of this: ‘Without the tree, we would be a ghost town, a rural village like any other.’ The tree ‘puts Tule in the map’ and, as all my interlocutors attested, ‘it brings life to Tule’. Santa María del Tule is a site that inevitably puts an end to any of the

22 Pablo González Casanova, ‘Internal colonialism and national development’, *Studies in Comparative International Development* 1 (4) (1995): 27–37.

23 Andrés Barreda Marín, ‘Anatomía de la decadencia de la relación capitalista entre la sociedad y la naturaleza’, in A. Barreda Marín, L. Enríquez Valencia and R. Espinoza Hernández (eds), *Economía Política de la Devastación Ambiental y Conflictos Socioambientales en México*, pp. 23–143 (Ciudad de México: Itaca, 2019); Lorena Cabnal, *Feminismos diversos: feminismo comunitario* (España: ACSUR-Las Segovias, 2010); Jason W. Moore, ‘Anthropocene or Capitalocene? Nature, history, and the crisis of capitalism’, *Sociology Faculty Scholarship* 1 (2016).

24 Andrea Ballester, *A Future History of Water* (Durham & London: Duke University Press, 2019).

illusions of distinction between humans and nature that are endemic to modern existence.<sup>25</sup> Those illusions, Anna Tsing aptly condemns, rely on ‘assumptions of human constancy and autonomy to endorse the most autocratic and militaristic ideologies’.<sup>26</sup> It is a paradigm rooted in the Cartesian and binary logics of European enlightenment, making it historically and epistemologically colonial by default.<sup>27</sup> At its core, it holds as both premise and goal the separation, domination and control of humans over the so-called ‘natural’ environment.

While in Tule, it becomes impossible to forget that ‘human nature is an interspecies relationship’ in itself.<sup>28</sup> The history of Tule cannot be written without attention to the development of its interspecies entanglements. After all, ‘if the tree lives, we live’, Fernán, a tree caretaker, emphatically asserted. In Tule, notions of ‘personhood’ are extended to non-human beings as well, of which the tree is particularly exemplary. Its life is conferred subjectivity, agency and value just as much as – if not more than – any human member of the community. For example, every year, on the second Monday of October, there is a public holiday in Tule celebrating the tree’s birthday starting early in the day and ending late at night. Likewise, in 2016, a (controversial) symbolic wedding took place between the tree and a Peruvian environmentalist, suggesting that the tree is also understood as capable of establishing kinship and intimate connection.<sup>29</sup> The tree is a community member like any other (Figure 3).

Yet, the forms of personhood that are conferred on the tree are not only expressed in human terms. The tree is spoken about in spiritual ways that can be understood through the lens of affect, transmitting specific embodied intensities as different bodies come to interact with it. Policeman Héctor and Caretaker Fernán, for instance, explained how the tree ‘has its own energy, it is old, so if you come near it, you might

25 Bruno Latour, *We Have Never Been Modern*, trans. Catherine Porter (Cambridge: Harvard University Press, 1993).

26 Anna L. Tsing, ‘Unruly edges: Mushrooms as companion species. *For Donna Haraway*’, *Environmental Humanities* 1 (2012): 141–54.

27 Aníbal Quijano and Michael Ennis, ‘Coloniality of power, Eurocentrism, and Latin America’, *Nepantla: Views from South* 1 (3) (2000): 533–80.

28 Tsing, ‘Unruly edges’.

29 Vidalia Cruz, ‘Se “casa” activista con el milenario árbol del Tule, en Oaxaca’, *Quadratin Oaxaca*, 8 July 2016: <https://oaxaca.quadratin.com.mx/Se-casa-activista-con-el-milenario-arbol-de-El-Tule-en-Oaxaca> (accessed 2 Aug. 2023).



FIGURE 3.

This poster is in a playground in the Tule tree's touristic plaza. It contains the quote: 'Like a tree's branches, we grow in multiple directions, but our roots are still the same'.

Source: Photo by author.

get sleepy', to which even the species name alludes. *Abuehuete* is the Spanish way of writing *ahuehuetl*, which comes from Nahuatl and means 'water elder' (*buehue*/elder, *atl*/water), giving it a prominent spiritual role across most of Mesoamerica as an entity that exists in close proximity to the *Huehueteótl* deity, the (Mexica) Elder God of Fire.<sup>30</sup> Accordingly, Héctor emphasised that the tree has wisdom and survival skills, arguing

30 *El Humedal*, 'El ahuehuete, viejo de agua' (2022): <https://elhumedal.org/articles.asp?t=El-ahuehuete-viejo-de-agua&c=82> (Accessed 11 Dec. 2023).

that because ‘the tree is more than 1,000 years old, it *knows* how to survive, or else it would have died already’. The tree is an agential being in Tule of its own accord, though it is not left to fend for itself. Miguel, from the Municipal Office of Sports and Culture, reminded me of this: ‘It is still a living being and it can get sick, or dry up... it is a living being and we have to care for it.’

Ultimately, the tree is conferred personhood and agency, and it is deeply embedded in the moral tissue of social life in Tule. ‘It remains alive and agential, associated to contemporary forms of life yet still a reminder of society’s evolution over time’, given how it has witnessed Santa María del Tule develop for over 1,500 years.<sup>31</sup> Trees, after all, ‘are an expression of their environment as much as their environment is an expression of the trees’, Dalia Nassar and Margaret Barbour remind us while also pointing out that ‘trees are telling, in a significant sense, their own stories’.<sup>32</sup> *Getting to know* the trees around us is a calling we should not turn our backs on. The Tule Tree is a focal point to understand the social, political and environmental issues that take place in Santa María del Tule, and paying attention to the stories the tree tells is necessary, for this is a central aspect of its personhood and agency.

It is worth noting that other forms of life are also conferred personhood in Tule. My interlocutors spoke about birds and their singing as meaningful ‘companions’, they spoke nostalgically about the fish and the frogs that used to ‘give life’ to the river, and they also spoke about how the community is transformed every year when the ‘Azucenas de mayo’ (a Mexican variant of rain lilies, *Zephyranthes chichimeca*) blossom in the neighbouring hills. In Tule, multiple life paths are meaningfully intertwined, such as those of the birds that stop at the Tule Tree on their migratory journeys. There are also unexpected residents in Tule, like the Mexican red-headed parrot (*Amazona viridigenalis*) that is endemic to northeastern Mexico, not Oaxaca, which is in the Mexican Southwest. Belonging to the Tule community is a multi-species act, one that is centred solely on the Tule Tree but which involves species of all kinds.

31 Luisa S. Sandoval Morán, ‘Plan de recuperación monumental y ambiental de Santa María de El Tule, Oaxaca: propuesta de vegetación para el plan maestro’. Trabajo terminal para optar por el Diploma de Especialización en Diseño, Planificación y Conservación de Paisajes y Jardines, Universidad Autónoma Metropolitana, 2007.

32 Dalia Nassar and Margaret Barbour, ‘Tree stories: The embodied history of trees and environmental ethics’, *Cultural Politics* 19 (1) (2023): 128–47.



Hence, keeping the community alive and thriving requires an intricate network of ecological care, and humans are not exempt. An estimated 75 per cent of the income that enters Tule comes from the tourism the tree enables. All my interlocutors were in some way economically involved with the tree. Some examples are Doña Marta, who sells tejate in the tree's touristic plaza; Iván, a tour guide; Venancio, who sells his crafts in the artisanal market besides the tree; Juanita, who cooks in the gastronomic market; Fernán, a gardener and caretaker for the tree; Guadalupe, who is an environmental consultant; or Omar, who owns a restaurant near the tree, meaning that his clientele is first and foremost visiting tourists. The tree enables revenue to enter Tule in multiple ways, and its impact is hard to fully measure. All life in Tule depends, in some capacity, on the Tule Tree.

And, conversely, the tree depends on the human community as well. Its age, the increasingly long droughts, and the decrease in groundwater reserves mean that its capacity to sustain itself is not guaranteed. The Tule community understands the tree akin to Parreñas' notion of 'arrested autonomy'.<sup>33</sup> The tree is a 'subject forcibly made dependent while simultaneously regarded as potentially independent'. The tree *may* be able to survive by itself, for 'it has roots that are 30–35 meters long, they go deep, and maybe it could find water', Héctor reflected. However, the community is not willing to take the risk of not watering the tree. Keeping it alive is the community's priority. Thus, while the tree is recognised as a subject that could potentially survive on its own, it is maintained dependent on the forms of care the community provides. Interdependence is the tone of Tule's ecological and cultural ecosystem all around.

Accordingly, the different bodies of water that can – or could – be found in Tule have been historically meaningful community hubs. There are multiple bodies of water in Tule, but one stood out in the conversations I had with my interlocutors. This is the Río Salado (or 'Salt River') (Figure 2), which is a tributary of the Atoyac River. It used to be a major site for community gatherings just under twenty years ago, Héctor reminisced: 'I used to go there with my siblings to play and bathe, there used to be lots of animals and lots of people. It was nice and even tourists spent time at the river.' Today, however, the river is dead,

33 Juno Parreñas, 'Arrested autonomy: An ethnography of Orangutan Rehabilitation'. Ph.D. Thesis, Harvard University (2013).

virtually turned into a dumpsite. I did not see anyone near the river on any of my visits, except for one occasion when a Jeep vehicle used the river as a shortcut to move around. All I could find was sewage water and some abandoned car tires.

Nevertheless, while Tule's water bodies no longer host the social activity they did in the past, their place in Tule's collective memory remains meaningful, showing how the water that nourished the tree (and which is also used for crop irrigation) weaves intimate relationships between people and land. I understand this relationship through Barabas' concept of 'ethno-territoriality', which emphasises the 'balanced reciprocity' between culture and ecosystems that rural and Indigenous communities in Mexico have historically had.<sup>34</sup> As in other parts of Oaxaca, this has historically occurred in Tule through the sacralisation of landmarks,<sup>35</sup> weaving together land and cultural attachments to the divine. The fact that the Tule Tree has been considered sacred for centuries is an example of this, being a site used for ritual dance since before colonial times, as well as a place entangled with multiple regional mythologies.<sup>36</sup> Folk tales suggest that the Tule Tree is one of the places where traces of Quetzalcoátl (the prominent Feathered Serpent God that features in several Mesoamerican mythologies) can be found, among others tales such as the Conday King story in Mixe mythology or even myths pertaining to Pecocho, a 'Nicaraguan prophet of Asian origin' who visited Tule to plant the tree.<sup>37</sup>

This is part of what made the drought in 2022 so pressing. The drought not only challenged the daily activities of everyone involved, but also threatened to dissolve the ecological balance that had for centuries been central to Tule's social fabric and identity. If the drought meant there could only be enough water for either the tree or the human residents, what would happen to the interdependence between these? And

34 Alicia Barabas, 'La construcción de etnoterritorios en las culturas indígenas de Oaxaca', *Desacatos* 14 (2004): 145–68.

35 Ibid.

36 Thiemer-Sachse, 'El Árbol de Tule'.

37 Vive Oaxaca, 'El árbol del Tule, Festividad 2012. Plática con Carlos Martínez, Historiador de Santa María del Tule' (2012): <https://www.viveoaxaca.org/2012/10/el-arbol-del-tule-festividad-2012.html> (Accessed 11 Dec. 2023); Juan Antonio Reyes Agüero, 'En busca del árbol nacional: El triunfo del ahuehuete en un concurso popular', *Relatos e Historias en México* 8 (153) (2021): 60.

how did Tule, a place where there has ‘always been water abundance’, whether it was rainy season or not, reach such a critical point? How was this water scarcity manufactured?

## WATER SCARCITY IN TULE – WHAT, HOW AND WHY?

Historically, Santa María del Tule has never lacked water. Even its name comes from Nahuatl *tollin*, the name given to an aquatic plant (*Schoenoplectus acutus*, though some claim it could also refer to *Typha domingensis*) that could be widely found in the community, especially in the past when the ecosystem was (suspectedly) semiaquatic and swamp-like.<sup>38</sup> The community’s local mythology, mostly a hybrid of Mexica and Zapotec culture,<sup>39</sup> is closely tied to its water abundance, and the way residents speak about the community’s water resources make it clear that water is a key part of Tule’s collective memory and identity.<sup>40</sup>

The water scarcity that the 2022 drought brought was thus a major turning point in Tule’s history. The factors that led to it are many. Some are global, like climate change; some are regional, like urbanisation driven by internal migration within the state of Oaxaca; and some other factors are fully local, such as Tule’s wastewater management, decisions regarding water distribution or even the widespread installation of equipment such as *cisternas*, underground water tanks. All these phenomena are environmental just as much as they are social, for the two realms are never truly distinct from one another.

38 Thiemer-Sachse, ‘El Árbol de Tule’; Alejandra Montoya, ‘El árbol del Tule, un testigo vivo a través de la historia’, *Living la vida*. 16 December 2021: <https://livinglavida.com/blogs/inspiracion/el-arbol-del-tule-un-testigo-vivo-traves-de-la-historia> (accessed 12 Dec. 2023).

39 Notably, Santa María del Tule was first populated by Zapotec people but then conquered by the Mexica (Aztec) empire prior to the Spanish Conquest (hence the adoption of Nahuatl vocabulary). Upon colonisation and in Mexico’s independent era, Tule has become a syncretic community that integrates multiple ethnic groups into a single social fabric. It is aligned with Mexico’s national project of *mestizaje*, which promotes a mixed-raced national identity. Nonetheless, there is signage in the touristic plaza written in the Zapotec language, acknowledging the community to be a historically Zapotec site.

40 Investigación y Diálogo para la Autogestión Social A.C., ‘Memorias del Agua - Santa María del Tule’, *Memorias del Agua en Oaxaca* (2022): <https://www.memoriasdeltule.com/>

I understand the processes by which water scarcity has grown in Tule through Moore's concept of the Capitalocene.<sup>41</sup> In his view, most of the ecological arrangements in our world today are the consequence of the organisational principles of global capitalism. This ecological ordainment, or 'world-ecology', as he calls it, is the result of modifications to nature in service to capitalist institutions, such as ever-growing markets, class hierarchies and capital accumulation processes; and, in particular, the forms that the Capitalocene takes respond to a principle that is a central tenet in the political economy of capitalism: 'cheap nature'. What this means is that capitalist accumulation relies on cheap extraction of value from nature, either in the form of raw materials or by exploiting its labour. This can be seen in Tule in both clear and subtle ways, from the way people manage water to hidden cultural biases as well.

My use of the term 'Capitalocene' is an intentional attempt to break apart from the more established paradigm of the 'Anthropocene', which posits that 'humans are now a geological force in and of themselves, driving planetary change at an unprecedented rate'.<sup>42</sup> As much as there is truth in that, I follow established critiques of the concept, which argue that 'humanity' cannot be conflated and treated as a homogeneous category that is equally responsible for the ecological impact of 'humankind'. To do so would efface present and historical differences between different groups of humans, particularly between coloniser and colonised classes. It is crucial to remember that 'speaking about the collective "we" of humanity should not imply that "we" are politically one'.<sup>43</sup> In Tule, for instance, it would be inaccurate to say that the ecological precarity experienced today is merely the result of humans acting in pursuit of 'human interests'. Not all humans in Tule have played a part in this ecological degradation, and human interests in the community are inextricably tied to healthy ecosystemic relations as well.

What is important to understand about Tule is that the water scarcity experienced in 2022 was amplified, but not *entirely* caused by that year's strenuous drought. Since the 1990s, the municipality has gone through an urbanisation process that laid out the conditions for the

41 Moore, 'Anthropocene or Capitalocene?'.

42 Amelia Moore, 'Anthropocene anthropology: reconceptualizing contemporary global change', *Journal of the Royal Anthropological Institute* 22 (2015): 27–46.

43 Ibid.

water scarcity it eventually experienced.<sup>44</sup> Between 1995 and 2000, Santa María del Tule was ranked as the municipality with the highest development index in the Metropolitan Oaxaca Zones, which is measured in terms of health provision, education and, most importantly, infrastructural development.<sup>45</sup> ‘Development’ had made its way to Tule, and throughout this period caring for the ecosystem was barely an afterthought. A key moment in Tule’s development was the inauguration of a super-highway in the early 1990s connecting Tule, Oaxaca City and Mexico City.<sup>46</sup> The highway stimulated trade and tourism, but also brought some of the biggest ecological threats Tule has faced. The highway was too close to the tree, damaging its roots and slowly drying it up. Thus, in 1992, the *Asamblea Comunitaria* (Community Assembly) decided to expand the touristic plaza and divert the highway to remedy the harm and protect the tree, which even entailed relocating some of the families that lived in the neighbouring area.<sup>47</sup> The tree survived those first threats, but that was just a beginning.

After that, pavement spread rapidly in Tule, transforming the local ecology in its own way. Most of Tule’s municipality is paved today, especially near the Tule Tree. Pavement, however, retains more heat and decreases the amount of water that makes it into the soil, decreasing in turn the amount of water available in the community’s groundwater reserves. Some residents are aware of this: ‘Now all streets have pavement,

44 G.V. Campos-Angeles, J.J. Vargas-Hernández, C. Trejo-López, J. López-Upton and J. Velázquez-Mendoza, ‘Variación estacional del potencial hídrico, tasa de fotosíntesis y conductancia estomática en el árbol del tule’, *Terra Latinoamericana* 23 (4) (2005): 515–22; Andrés E. Miguel and Victor R. Robles González, ‘Territorio y distribución del ingreso en el neoliberalismo: el caso del distrito Centro, Oaxaca’, *Anuario de Espacios Urbanos Historia, Cultura, Diseño* 6 (1999): 291–301.

45 K.A. Martínez García, L.A. Martínez Sánchez, C. Martínez Olivera, A.E. Miguel Velasco and M.A. Osorio Hernández, ‘El Papel de la Vivienda y las Tecnologías en el Desarrollo Sustentable de las Zonas Metropolitanas de Oaxaca, México’, *III Congreso Virtual Internacional sobre Economía Social y Desarrollo Local Sostenible* (2020), pp. 106–39.

46 Miguel and Robles González, ‘Territorio y distribución del ingreso en el neoliberalismo’.

47 Daniel Barrera-Fernández and Marco Hernández-Escampa, ‘Community-based tourism, heritage conservation and improved urban design—Santa María del Tule, Oaxaca, Mexico’, in Sandeep Kumar Walia (ed.), *The Routledge Handbook of Community Based Tourism Management: Concepts, Issues & Implications*, pp. 249–63 (London: Routledge, 2020).



and that hurts us – water runs off instead of concentrating underground. Before, our streets collected water, but we cannot count on that anymore’, Miguel commented. This has also transformed people’s relationship with the land, as Héctor and Fernán explained: ‘This floor we are standing on used to be mud, water used to pour from the ground, and we could drink the mud as if it was chocolate. We cannot do that anymore.’ The water abundance that used to be part of Tule, experienced to the degree of being able to drink water at any time directly from the ground, was left behind when the municipality paved the roads.

On top of this, perhaps the most devastating factor in Tule’s ecology was the development of the residential neighborhood called El Retiro. This neighbourhood was built around the year 2000 by the Instituto de la Vivienda de Oaxaca,<sup>48</sup> who, according to local rumours, took the opportunity when a wealthy resident wanted to sell most of his land. This neighbourhood has been a major catalyst for people from Oaxaca City to migrate to Tule, transforming the community’s cultural composition and the services required there.<sup>49</sup> Most residents living in El Retiro used to live in Oaxaca City, but have now looked for alternative places to live nearby (Tule is a thirty-minute drive away) given the aggressive gentrification that Oaxaca City has undergone in the last two decades. El Retiro’s appeal lies in the way it offers Oaxacan residents more affordable opportunities to aspire for the normative middle-class lifestyle in Mexico, wherein aspirations of upward mobility are expressed in the possibility of being property-owners, as Laura, a resident of Oaxaca City, shared with me. Property in El Retiro, Tule, is much cheaper than in Oaxaca City, explaining the twenty per cent increase in the population of Tule since the neighbourhood was first built.<sup>50</sup>

48 Ayuntamiento Constitucional de San Santa María del Tule, ‘Plan Municipal de Desarrollo de Santa María de Tule, Valles Centrales, Oaxaca’.

49 Ibid.

50 Laura I. Gaytán Bohórquez, Verónica González García and Isabel González García, ‘Asentamientos humanos irregulares en la Zona Metropolitana de Oaxaca. La lógica de la marginación urbana. Recuperación transformadora de los territorios con equidad y sostenibilidad’, in Sergio De la Vega Estrada and María del Pilar Alejandra Mora Cantellano (eds), *Estudios sobre cultura y desigualdad en las regiones Vol. 4* (Ciudad de México: Universidad Nacional Autónoma de México, Instituto de Investigaciones Económicas y Asociación Mexicana de Ciencias para el Desarrollo Regional, 2021).

The primary issue with El Retiro, however, is that for more than a decade it poured its wastewater directly into the Río Salado, transforming the river from a community hub to a polluted dumpsite. While this has stopped now, it still led to irreversible biodiversity loss, and there have even been reports that the contaminated water has reached the community's groundwater reserves.<sup>51</sup> This presents a health hazard amidst other challenges, all of which were present in Héctor's lament regarding the development of the neighbourhood: 'I don't know why the local authorities agreed to its development. We are now running out of water because of it, and we are now even overpopulated.'

And the drought made everything worse. As a result of global climate change, a consequence of what Barreda Marín calls 'fossil capitalism', Tule was forced to entirely reconsider how it manages its water resources.<sup>52</sup> Farmers, for example, had no means of predicting when it would rain, meaning that any course of action regarding their crops would be a gamble. In the past, the first harvest of the year used to be available around late March or early April. However, in 2022, only the farmers whose land was located near wells had dared to sow any seeds, meaning that local food production also saw a significant decrease. This was one of the reasons behind ongoing community disputes over agricultural land (Figure 4). As a result, corn – a quintessential ingredient in the Mexican diet – had to be imported from other parts of Oaxaca, driving up the cost of food and, consequently, of life as a whole.

Likewise, when it comes to domestic water, municipal authorities decided in early May that they would interrupt some of their public water provision services, rationing it by areas and schedules instead. While this was not the first time water rationing had been implemented in Tule, it had been a long time since it was last done, and it had never been so threatening: 'I cannot remember the last time we experienced something like this, and tougher times are still to come', Venancio reflected.

Yet, within the mechanisms of capitalism, everything was working to perfection. Water wells used to be always available for public use in Tule, and anyone could collect potable water from these. These wells are no longer accessible, now under state custodianship. Doña Marta, who

51 Ayuntamiento Constitucional de San Santa María del Tule, 'Plan Municipal de Desarrollo de Santa María de Tule, Valles Centrales, Oaxaca'.

52 Barreda Marín, 'Anatomía de la decadencia'.



FIGURE 4.

Many farmers decided not to sow any crops in the first half of 2022, aware that the drought could easily render any investment null.

Source: Photo by author.

sells teja, explained how in the past she used to collect water from the wells to prepare her drink, but now she must purchase bottled water that is extracted, privatised and monopolised by profit-driven multinational corporations instead.<sup>53</sup> Water scarcity provides the perfect alibi to separate communities from their water resources, then to privatise them. Environmental destruction creates markets that are subject to financial speculation and are unlikely to favour small communities like Tule, which is especially relevant considering that water entered the

53 Sergio Velázquez Vargas and Francisco Peña, 'Concentración de agua y agroempresarios en el Bajío, México', in C. Yacoub, V. Duarte and Rutgerd Boelens (eds), *Agua y Ecología Política: El extractivismo en la agroexportación, la minería y las hidroeléctricas en Latinoamérica*, pp. 45–53 (Quito, Ecuador: Abya-Yala, Justicia Hídrica, Serie Agua y Sociedad, 2015).

Wall Street financial market as a commodity in 2021.<sup>54</sup> Notably, this is a subtle mechanism of the ‘un-indigenisation’ (*desindianización*) process that the Mexican state has promoted for most of its independent era,<sup>55</sup> forcing ‘Indigenous’ communities to change their ways of life and participate in modern capitalist modes of production to survive instead.

The markets created by water privatisation are many, and they will continue to proliferate. In Tule, for instance, they can also be found in the water trucks that are now needed to provide clean water to most households in Tule, or even in the underground water tanks (cisternas) that several residents have installed in the last few years to be better prepared for the times when water is lacking. The former illustrate the growing dependency on capitalist markets for survival, whereas the latter, despite being innocent-looking, ‘claim private ownership over public water’, Policeman Héctor asserted in an accusatory tone. This accusation is not without solid foundations. Private and privatised solutions to water scarcity lean on and reproduce the individualism, atomisation, manufactured scarcity, subjection of social issues to market forces and transfer of responsibility from institutions to individuals that have come to characterise the Capitalocene and its neoliberal developmental regimes.<sup>56</sup>

Even the way water is allocated within the tree’s touristic plaza during the drought responds to such logics. Unequivocally, it is important to keep the tree healthy, which is why it is watered for up to twelve hours non-stop. But I was surprised by how, in each of my visits, large amounts of water were destined to water the grass turf placed all over the plaza. This turf was watered from early in the mornings, starting at seven in the morning until early afternoon. When I first arrived in Tule, the grass was watered non-stop, but by mid-April this was done in 45-minute intervals as gardeners had to wait for more water to become available

54 Kim Chipman, ‘California water futures begin trading amid fear of scarcity’, *Bloomberg*, 20 Dec. 2020: <https://www.bloomberg.com/news/articles/2020-12-06/water-futures-to-start-trading-amid-growing-fears-of-scarcity#xj4y7vzkg> (accessed 2 Aug. 2023).

55 Dolores Pla Brugat, ‘Más desindianización que mestizaje. Una relectura de los censos generales de población’, *Dimensión Antropológica* 18 (53) (2011): 69–91.

56 Gustavo Esteva, S. Babones and P. Babcicky, *The Future of Development: A Radical Manifesto* (Bristol: Policy Press, 2013); David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005).



FIGURE 5.

There is plenty of grass turf in the Tule tree's touristic plaza. The drought stressed the water resources needed for its maintenance, and dry yellow patches of grass could be found all over by mid-May 2022.

Source: Photo by author.

in the water wells. The reasoning behind this was rather clear: the grass turf – a water-intensive landscape - enhances the reputation of the Tule Tree, attracting more tourism and, accordingly, more income. Allocating water to the turf *in addition to* the Tule Tree was deemed a more valuable investment than supplying water to households for domestic use, prioritising revenue from tourism over a comfortable existence in the municipality during times of crisis (Figure 5). The water scarcity that is pressing on Tule today can be understood as the consequence of decades of a developmental model based on transforming nature to serve the interests of capital accumulation. Even the ecological interdependence that is so embedded in the ways of life in Tule is now subject to this.

And yet, there *still* is water in Tule. Having water to live with remains possible, even while global climate change threatens to change that fact. Life in the community will continue to grow, though it is



likely it will happen in harsher conditions and with different ecological relationships than in the past. The groundwater reserves are still replenishing, although in a much slower way than they used to before. For the moment, it seems that the Tule Tree, almost 2,000 years old, will continue to find its way through, 'bringing life' for years to come. The tree is a bastion of the 'possibilities for life in capitalist ruins' that Anna Tsing urges us to look for, reminding us that we can write histories of environmental loss not only to mourn, but also while searching for hope.<sup>57</sup> Residents in Tule *do* hope, after all. Where does this hope come from?

## HOPE: AFFECTIVE FUTURES AND COMUNALIDAD IN SANTA MARÍA DEL TULE

To understand how hope is produced and experienced, we must first understand how people inhabit time. Hope is inherently temporal, for it is oriented towards the future, and Berlant shows how – by virtue of being a form of affect – it 'can communicate the conditions under which a historical moment appears as a visceral moment'.<sup>58</sup> Time, in that sense, is affective: it is experienced subjectively in ways that respond to individual and collective orientations alike. However, as much as inhabiting time involves "something" ... that exceeds, or goes further and beyond the human imagination that produces an affect that may be experienced by human beings, *all the same*,<sup>59</sup> it is also subject-specific. An individual's interaction with their environment 'depends on the bodily inhabitation of that space', Sara Ahmed points out.<sup>60</sup> Inhabiting a particular time produces orientations from which our value systems, desires and relationships all partake. To be oriented towards hope amidst ecological precarity, in that sense, involves a form of temporal vulnerability, wherein the future can always disappoint should things not 'become different in

57 Anna Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2015).

58 Lauren Berlant, *Cruel Optimism* (Durham & London: Duke University Press, 2011).

59 Navaro, *The Make-Believe Space*.

60 Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others* (Durham & London: Duke University Press, 2006).

just the right way'.<sup>61</sup> Hope entails vulnerability, and optimism is often cruel. And yet, despite the overwhelming uncertainty of our ecological times, people in Tule are still willing to hope. The difference in this case is that what people in Tule hope for is not necessarily for things to change, but rather for things *to stop changing*, broadly speaking.

Their hope, of course, is not one-dimensional. People *do* worry. Doña Marta, for instance, said that she feels 'simply powerless' against climate change and its associated effects. Miguel emphasised his own worries too, saying that 'we *all* worry, the whole community worries. It affects us today, and we wonder, how will it be for our children? What about our grandchildren? If things are like this today, can you imagine the future? I am worried.' Nostalgia was also an important part of the mix, as shared by Héctor: 'I wish the old days could return, but that is impossible now, the rivers are already polluted, the only future we can hope for is more rain, more life.' Reminiscing about the river bittersweet for him, as it reminded him of how he used to visit the river is with his siblings, some of whom are no longer alive. Ecological loss in Tule is social loss as well, for the community's memory and identity are all at stake.

Turning towards this pain rather than *simply hoping* was important for many of my interlocutors, in alignment with Elizabeth Povinelli and Sophie Chao's reminders that hope does not get a free pass from critical examination. Beyond cruel, it can be a 'pharmakonic' imposition as much as it can be 'dangerously naive and ignorant, it fails to understand it is a privilege of some and a lure to catch unsuspecting others'.<sup>62</sup> When wielded uncritically, hope can be used to sustain our attachment to the dominant social systems we are living under, applied as a band-aid to cover up the ongoing pain that the failure of these structures has caused.

Hence, the testimonies above, going beyond hope, account for a series of contradictions I struggled making sense of throughout my fieldwork. Amidst the drought and its accompanying pain, every single day, starting at 7.00 a.m., gardeners would water the grass surrounding the tree, sometimes for as long as seven hours straight. At 10.00 a.m., three ornamental fountains were turned on in the touristic plaza,

61 Berlant, *Cruel Optimism*.

62 Elizabeth Povinelli, 'Stubborn'. *E-flux journal* (2018): <https://www.e-flux.com/journal/95/228045/stubborn/> (Accessed 12 Dec. 2023); Sophie Chao, *In the Shadow of the Palms: More-than-human Becomings in West Papua* (Durham and London: Duke University Press, 2022).

putting a water show on display. And around and within the plaza, there were multiple *agua fresca* (fruit water), sorbet and tejate businesses on any given day.

At first sight, it was hard to believe that Tule lacked water – it seemed to be everywhere! The way things looked sent a seemingly clear message: ‘there is water here’. And the tone of the social activity that took place within the plaza by no means suggested we were living in the times of environmental insecurity the drought had brought on. At all times of the day, kids played around while residents and tourists alike visited the plaza to walk, relax, meditate or even take a nap by the tree. Venus, a tourist from Costa Rica, expressed this sentiment: ‘This is a peaceful place, it makes me want to meditate and feel calm with myself.’ I also experienced this in most of my visits to Tule, and having a *tuna* (the fruit given by the *Opuntia* cactus) sorbet at noon under the shadow of the Tule tree became a routine that lasted all my research. How could the worries brought by the drought coexist with the sense of calm and ‘normality’, and even the performance of water abundance, found in Santa María del Tule’s touristic plaza? (Figure 6).

According to my interlocutors, the touristic plaza represents the community values that have helped them and will continue to help them survive. They are aware that water fountains in times of drought may not be the best possible use of water in sheer environmental terms, but ‘everyone has sacrificed something for the tree’, and being able to enjoy the plaza to the fullest extent offers hope, catharsis and tranquility in times of crisis. Historically, the touristic plaza has always been developed through a cooperative model with all decisions made collectively at the Asamblea Comunitaria, which is conferred the utmost political authority in most Oaxacan municipalities. The touristic plaza has even been previously studied as a success story and model to follow in terms of community-based tourism.<sup>63</sup> The plaza is today a reminder that the abandonment of individual interest allows the community to respond to challenges in a united and effective manner. Policeman Héctor, for example, recounted how his family was one of the relocated households when the plaza had to be expanded in the 1990s to protect the tree from pollution coming from the highway. His family had to leave behind

63 Barrera-Fernández and Hernández-Escampa, ‘Community-based tourism, heritage conservation and improved urban design’.



FIGURE 6.

Despite the drought, three water fountains remained operational in the Tule tree touristic plaza.

Source: Photo by author.

the place where they grew up, built their life and raised their children, but only in that way could the future of the tree be secured for years to come. A beautiful and thriving plaza is the legacy of their sacrifice, which now Héctor gets to honour by taking care of the tree. Water may have been rationed to individual households on a rotational basis during the drought, but the plaza has water, and it is meant to be enjoyed by everyone, locals and tourists alike.

This is an expression of a social and political ideal that is widely spread across the state of Oaxaca: *comunalidad* (communality). *Comunalidad* acts as a cultural cohesive element for the political system *Usos y Costumbres*, an autonomous governance structure that can be found in most Indigenous communities of Oaxaca, including Santa María del Tule.<sup>64</sup> *Comunalidad*, at its core, is a form of ‘authority and power based on consensual decisions’ meant to serve ‘the common good’.<sup>65</sup> It is sustained through five main pillars: communal land, communal work (or *tequio*), communal political power, communal parties and the *Asamblea Comunitaria*.<sup>66</sup> In Tule, several of my interlocutors expressed that a sense of hope stems from it, especially as they recounted how the *Asamblea Comunitaria* has repeatedly acted firmly in the past to care for the natural environment. The expansion of the touristic plaza is just an example, but the list goes on. In 2012, for instance, a session of *tequio* summoned residents to sow ocote pines (*Pinus montezumae*), jacarandas (*Jacaranda*) and laurels (*Laurus nobilis*) in the neighbouring hills. Today, these have grown and can be found with relative ease. When anyone goes to the hills for a walk, they now realize that ‘*the community was here*, and there is more nature, more trees, and more life overall because of it’, Héctor remarked. Similar *tequio* sessions have been organised recently, including a ‘reforestation *tequio*’ that took place in 2021 with the explicit aim of sowing trees ‘for future generations to enjoy’. People

64 O. Allende Hernández, A.I. Zanfrillo and J. Calvo Cortés, ‘Principios y valores en los usos y costumbres de la región Mixteca en el marco de la economía social para el desarrollo comunitario’, in I. Castellanos Balderas, Y. Paz Calderón, C.A. Peral Cisneros and F.A. Sánchez Meza (eds), *Empresa, economía y mercado. Perspectivas multidisciplinares*, pp. 45–63 (Ciudad de México: Bubok Publishing, 2018).

65 Jaime Martínez Luna, ‘Comunalidad y Desarrollo’, *CONACULTA* (2003).

66 Elena Nava Morales, ‘La Comunalidad Oaxaqueña: Lucha y Pensamiento Indígena’, in Pedro Canales Tapia and Sebastião Vargas (eds), *Pensamiento Indígena en Nuestramérica*, pp. 27–46 (Santiago, Chile: Ariadna Ediciones, 2018).



are sowing the future in Tule, and collective action has been at the core of this for several years already.

Comunalidad, hence, acts as a source of hope in Santa María del Tule. My interlocutors emphasised that, through communal values, ‘our future remains in our hands – when we are aware of what we have to do and organize together, we can do meaningful things’, Miguel claimed. Héctor made sure to list the ways that environmental awareness has been a part of the community’s actions for many years. For instance, in the last decade, the Asamblea Comunitaria has installed water treatment facilities, implemented systems to separate compostable from non-compostable trash, enforced policies to protect the Tule Tree from graffiti or having its branches removed, and even routinely called for ‘communal trash-collection walks’. In his words, ‘we are *already* doing better’, and the drought had awakened the community to the urgent actions needed to respond to climate change. Comunalidad, in its multi-species iteration, reminds us that if life is to continue, we must act together and depend on each other, human or not. The individuating mechanisms of capitalism have already brought us to such precarious times but, to survive, sacrifices may be needed. Tule teaches us that togetherness can transform loss into possibility, and hope can be a worthwhile quest.

## CONCLUSION

In early June 2022, it finally rained in Tule. Water kept coming for months and, thankfully, the drought in 2023 was not as strenuous. Life returned, at least for a while, to some sense of normality, but no one knows how long this can last for. All indicators and predictions, including the extreme heat wave that struck Mexico in June 2023,<sup>67</sup> suggest that droughts worse than the one in 2022 are to be expected. Environmental loss is hardly reversible, and ecosystems such as the Río Salado are likely to be gone for our lifetime at the very least. We are living in delicate times of ecological precarity, and acknowledging our vulnerability in today’s climate is needed more than ever if we are to hope for anything

67 Brendan O’Boyle and Daniel Becerril, ‘Mexico swelters as “atypical” heat wave grips nation’, *Reuters* 15 June 2023: <https://www.reuters.com/world/americas/mexico-swelters-atypical-heat-wave-grips-nation-2023-06-15/> (accessed 2 Aug. 2023).

other than further loss. Santa María del Tule is just an example of the multi-species interdependent networks we are embedded in and which we can no longer neglect. To do so would be reckless, especially now that ‘we get to see the realities of climate change. No one is telling us what it will be like anymore – we are seeing it, it’s difficult, and *there is no end in sight*’, as Policeman Héctor reflected to conclude our talk.

But we still get to hope for a meaningful future. In Tule, people are acting together based on the local value of *comunalidad* to adapt to the challenges brought by climate change and to prevent these from growing even bigger. This is ultimately what Tsing, Swanson, Bubandt and Gan would call ‘the art of living on a damaged planet’, finding in times of loss opportunities for community and connection.<sup>68</sup> The Tule Tree is a prime example of this, and the wisdom it has accumulated in its almost-2,000 years of life is a source of inspiration for anyone looking for it. The tree tells a story of resilience and interdependence, a tale of the ‘commitment to living and dying with response-ability in unexpected company’ that Haraway appropriately calls for.<sup>69</sup> After all, ‘such living and dying have the best chance of cultivating conditions for ongoingness’, despite our current vulnerability,<sup>70</sup> as the Tule Tree can confidently attest.

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68 Anna L. Tsing, Heather Swanson, Nils Bubandt and Elaine Gan, *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene* (Minneapolis: University of Minnesota Press, 2017).

69 Haraway, *Staying with the trouble*.

70 Ibid.