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# Geoviolence: Climate Injustice, Labour Migration, and Intimacy

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**Abstract:** In the context of anthropogenic climate change, it has become increasingly imperative to examine the socio-ecological consequences of human-made environmental degradation as a form of violence. I advance the term "geoviolence" to refer to human actions that increase suffering through the generation, exacerbation, or instrumentalisation of adverse geophysical conditions. Focusing on labour migration dynamics, this article illustrates how geoviolence is exercised by human actors, particularly states. Based on multisited ethnographic research in Morocco and Spain with agricultural workers and their families, I analyse connections between anthropogenic climate change, migration regimes, and intimacy. I argue that the effects of water scarcity, coupled with restrictive migration policies, exacerbate the familial hardships of Moroccan agricultural labourers, thus engendering experiences of geoviolence.

**Resumen:** En el contexto del cambio climático antropogénico, resulta más urgente examinar las consecuencias socioecológicas de la degradación ambiental provocada por actividades humanas como una forma de violencia. Desarollo el término "geoviolencia" para referirme a las acciones humanas que aumentan el sufrimiento mediante la generación, exacerbación o instrumentalización de condiciones geofísicas adversas. Centrándome en las dinámicas de la migración laboral, este artículo ilustra cómo la geoviolencia es ejercida por actores humanos, en particular por los estados. Basándome en una investigación etnográfica multisituada en Marruecos y España con trabajadoras agrícolas y sus familias, analizo las conexiones entre el cambio climático antropogénico, los regímenes migratorios y la intimidad. Sostengo que los efectos de la escasez de agua, junto con las políticas migratorias restrictivas, recrudecen las dificultades familiares de las trabajadoras agrícolas marroquíes, generando así experiencias de geoviolencia.

**Keywords:** agricultural labour migration, water scarcity, state violence, family separation, Spain, Morocco

## Introduction

> Years ago, my region [in Morocco] was rich in different kinds of fruit—peaches, watermelons, and cherries. But this year, the trees didn't bear much fruit [because of the lack of rain] … Some family members back home are telling me to stay in Spain because there is little work in my hometown. (Faiza, May 2023)[1]

The above quote is from a Moroccan agricultural worker who migrates annually to Spain to work in Huelva's berry industry. It illustrates the growing significance of the issue of water (scarcity) for agriculture and migration. The berry industry in Huelva relies annually on approximately 100,000 seasonal berry pickers, of which

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between 10,000 and 20,000 annually migrate from Morocco for the duration of the berry harvest via a bilateral agreement.[2] A peculiarity of this programme is that in Morocco only women from rural areas who have children are recruited.[3] While the mothers work in Spain, their families must remain in Morocco—a geopolitical strategy that aims to prevent workers from migrating permanently (Komposch et al. 2024). As one of these workers, for many years Faiza has left her three children in Morocco for several months out of the year to work in Spain.

Due in part to water scarcity in Morocco and Spain, opportunities for agricultural work have become unstable. In January 2024, the Andalusian Prime Minister declared a drought emergency due to the ongoing lack of rain and sinking groundwater levels. In the same month, extreme water scarcity in Morocco led the government to announce that to conserve water, *hammams* (public baths) and car-washing stations would be open only three days a week.[4] Meanwhile, Faiza decided to stay in Spain permanently. The risk of not being recruited again, and thus having to stay in Morocco without work, became too high for her. Lacking a legal visa, Faiza now faces a precarious living situation as well as long-term separation from her family. Her case is one example of the ways in which water scarcity, anthropogenic climate change,[5] and migration regimes can affect the intimate family lives of Moroccan agricultural workers who migrate seasonally to Huelva.

In this article, I centre the intimate family and motherhood experiences of Moroccan women who work in Huelva. Based on their accounts of their everyday lives in the context of agricultural labour migration, along with data on water scarcity in Spain and Morocco, I advance the concept of "geoviolence"—the human generation, exacerbation, or instrumentalisation of geophysical conditions that result in increased suffering for humans, nonhumans, and their environments. The concept builds on the insights of feminist geographers, highlighting the fact that violence can occur in everyday life events that are hidden and intimate, and how it affects people in different ways according to their gender, class, or race (Christian and Dowler 2019; Pain 2015, 2021). I also link the term to debates about climate justice (Sultana 2022), elaborating on the connection between intimacy, the anthropogenic climate crisis, and restrictive migration regimes. While acknowledging that there are multiple agents of geoviolence, this article primarily discusses state practices, or the lack thereof, as possible sources. By focusing on the effects of geoviolence in the intimate sphere and unravelling the interconnections to the planetary scale, I demonstrate that studying the everyday experiences of agricultural workers can contribute to a better understanding of such multiscalar connections.[6]

In the following sections, I first review discussions within the field of feminist geography related to planetary climate (in)justice, violence, and intimacy. I then elaborate on the concept of geoviolence. After presenting the methods used in this study, I discuss Moroccan agricultural workers' everyday experiences of geoviolence, demonstrating: (i) how droughts in Morocco undermine family livelihoods; (ii) how water scarcity in Morocco and Spain, combined with transnational migration policies, contributes to long-term family separation; (iii) how climate-related factors and migration regimes shape mothers' worries about

their children's futures; and (iv) how Moroccan women and activists contest geoviolence in their everyday lives.

## Planetary Climate (In)justice, Violence, and Intimacy

Acknowledging the effects of the climate crisis, scholars increasingly recommend a holistic "planetary" (Chakrabarty 2021) understanding of the Earth, emphasising the importance of both human impacts and nonhuman processes and entities in shaping the planet's present and future (Eriksen and Ballard 2020). A planetary perspective that considers the interrelations between diverse beings and their environments (Verne et al. 2024) enables the depiction of the interconnections between violence and climate change. It also provides a framework for criticising and challenging hegemonic and colonial modes of thought (Mould 2023), thereby aligning with writings about climate justice.

Climate justice connects questions of environmental degradation to social justice, notably addressing discrimination and violence based on environmental racism (Pulido 2017). As Sultana (2022:118) writes, "Climate justice fundamentally is about paying attention to how climate change impacts people differently, unevenly, and disproportionately, as well as redressing the resultant injustices in fair and equitable ways". Geographical scholarship has further emphasised the multidimensional nature of the co-constitution of space and climate justice (Walker 2009), and the importance of differences in the positionalities of marginalised groups (Mikulewicz et al. 2023). A climate justice approach investigates patterns of benefit and harm, examining not only who benefits and who suffers, but also how, where, and why. A climate justice perspective, therefore, involves recognising the disproportionate impacts of climate change on different populations and asserts that climate change is an ethical matter, rather than merely a question of finding new scientific knowledge or technological solutions (Gardiner 2011). This includes recognising that racialised communities, particularly in the Global South, often bear the heaviest burden of negative impacts of climate change driven by global capitalism (Gonzalez 2021). As such, ensuring safe migration pathways for communities displaced by climate change and other intersecting factors is a critical aspect of climate justice.

In line with previous works by other scholars, I emphasise the importance of conceptualising human action that results in climate injustice as a form of violence. Including environmental causes such as climate change, Nixon (2011:2) introduced the notion of "slow violence" as "violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space". However, I argue that in this time of accelerating climate crises, the temporal focus of Nixon's *slow* violence is no longer entirely suitable for analysing contexts like those in this article. Furthermore, Christian and Dowler (2019) noted that slow violence describes phenomena that feminist scholars who research everyday forms of violence have long discussed. They argued that it is essential to consider the interconnected racialised, gendered, and classed dimensions of multiple forms of violence to explain its impacts and wide-ranging invisibility (e.g. Berman-Arévalo and Ojeda 2020; Brickell and Cuomo 2020; Fluri and

Piedalue 2017; Pain 2021). Looking at health outcomes related to environmental hazards, Marcantonio and Fuentes (2023:E861) used the term "environmental violence" to describe "harm experienced by humans due to toxic and non-toxic pollutants put into a local—and concurrently the global—ecosystem through human activities and processes". Pain (2015) further highlighted how intimate spheres are crucial for understanding violence, which operates not only through physical harm but also through emotional and psychological dimensions.

Understanding intimacy as "forms of close affective encounter" (Oswin and Olund 2010:62), this article centres on violence and climate injustice within the intimate lives of agricultural workers and their families. Drawing on feminist scholarship that emphasises the integration of anti-racist and decolonial perspectives to understand and achieve climate justice (Sultana 2022), I adopt an intersectional framework that considers climate change to be material, embodied, and deeply embedded in everyday life (Neimanis and Walker 2014). The nexus between climate justice and intimacy has received growing scholarly attention, for example by picturing bodies as "archives" of environmental pollution (Neimanis and Walker 2014) or revealing how environmental emotions affect people differently depending on race, class, and gender (Sasser 2024). Geographers have further discussed this environment–intimacy nexus, for example by showing how segregation exposes marginalised communities to environmental pollution (Morrell and Blackwell 2022), how poverty, social inequalities, and changing environmental conditions due to climatic fluctuations lead to alarming maternal and child health conditions (Rishworth and Dixon 2018), and how pesticides can affect female farmworkers' health (Barbour and Guthman 2018; Komposch et al. 2024; Sabin et al. 2024). Yet, there is a paucity of geographical research on the nexus between climate justice and the intimate experiences of family life in the context of agricultural labour migration.

Drawing on the above-mentioned feminist perspectives on planetary climate justice, violence and intimacy, and empirical data related to female Moroccan agricultural workers' intimate family lives and experiences of environmental degradation, I call for an approach to violence that highlights the interplay between human and more-than-human factors, revealing diverse origins and outcomes of geoviolence from an intersectional perspective.

## Conceptualising Geoviolence

This article advances the notion of geoviolence to explore how human actions generate, exacerbate, or instrumentalise geophysical adversities, leading to intimate suffering and climate injustice. This term has been occasionally employed in disparate contexts, but without further conceptualisation. Nicholson et al. (2019:40) used the term once, defining it as "where past and current geopolitical conflict, global capitalist development, land governance and management, and complex environmental crises associated with climate change intersect to effect a slow violence upon the body, as well as the communities of which those bodies are a part".[7] My conceptualisation of geoviolence draws on these elements. However, I expand the notion to encompass how violence also affects

more-than-humans and the spaces where human and more-than-human activities occur.

I define geoviolence as human actions that generate, exacerbate, or instrumentalise adverse geophysical conditions, leading to increased suffering for human or nonhuman beings, their communities, or the environments they inhabit. By "adverse geophysical conditions", I mean environmental factors that negatively impact the well-being of living organisms and ecosystems, including natural hazards, pollution, and natural features (e.g. seas or mountains) that can be instrumentalised for harmful purposes. Thereby geoviolence, as I define it in this article, also goes beyond the above-described environmental violence (Marcantonio and Fuentes 2023), which focuses on pollution-related human harm. I draw on two examples to illustrate how geoviolence can emerge: the generation and exacerbation of adverse geophysical conditions through human-induced climate change, and the instrumentalisation of the adverse geophysical conditions of the Mediterranean Sea and Atlantic Ocean, as well as their geophysical surroundings, as natural barriers, thus leading to the suffering—and even death—of migrants (Schindel 2022).

I emphasise the need to move beyond referring to anthropogenic geophysical adversities as "hazards" to focus instead on the human actions that actively contribute to them. Centring the analysis on human power via the concept of geoviolence enables tracing the multiscalar socio-environmental dimensions of these processes and, in turn, identify pathways for accountability and transformation. Given the constraints of individual agency in addressing planetary-scale violence driven by unequal power structures (Maniates 2001), I focus particularly on influential human-controlled actors (e.g. states), even as I acknowledge that multiple agents, including supra-state organisations and multinational corporations, can contribute to geoviolence.

Based on my observations, I suggest that geoviolence has three origins: intention, ignorance through repression of knowledge, and lack of knowledge. In the first case, geoviolence stems from the conscious intention of actors to generate, exacerbate, or instrumentalise adverse geophysical conditions to harm other bodies, communities, or environments. One could argue that this is the case, for example, when the Mediterranean Sea and the Atlantic Ocean are instrumentalised to prevent irregular migration. When geoviolence stems from ignorance, the harmful consequences of actions are known but ignored due to the (un)conscious repression of this knowledge. This form is widespread, as information about climate-damaging actions is widely available. It becomes evident in state and supra-state policies, as well as in the everyday actions of the institutions, multinational corporations, and to a lesser extent, individuals that accelerate climate change, as these actors repress knowledge of the harmful consequences of their actions. Unintentional geoviolence arises from an insufficient understanding of complex planetary interdependencies. With regard to climate change, unintentional acts of geoviolence may occur at the individual level, where lack of knowledge is possible. However, this is a less plausible explanation for the actions of state bodies or multinational corporations, which have access to the knowledge required to pursue informed and responsible actions.

Geoviolence can affect human and nonhuman bodies on both physical and emotional levels, and it can physically affect the territories they inhabit through environmental degradation. Geoviolence can, therefore, also result in what Pain (2021:974) calls "geotrauma", which refers to the "multiscalar, intersecting and mutual relations between trauma and place". Like geotrauma (Pain 2021), geoviolence highlights the significant role of oppressive power relations on multiple scales. Linking multiple forms of place-bound oppression is crucial for depicting the entire "matrix of domination" (Collins 2000:251) and illustrating how harm is unevenly distributed along lines of gender, race, and class.

By linking acts of violence and experiences of intimacy across different locations, the *geo* in geoviolence emphasises how human violence can manifest through place-bound (experiences of) adverse geophysical conditions. Aligning with other geographers who note that there is much to be gained by incorporating not only sociospatial aspects into the *geo*, but also "geography's complex and intersecting disciplinary histories" (Mills et al. 2017:303), the term geoviolence encompasses both human and more-than-human spheres.

## Methods

Through multisited ethnographic fieldwork in Spain and Morocco over the course of four stays that covered a total of eight months between April 2021 and June 2023, I gathered empirical data on agricultural labour migration by following Moroccan migrant workers in their everyday lives. This included making observations in their workplaces, hospitals, and health centres in Huelva, in their homes in different regions of Morocco, and while accompanying a group of Moroccan women on their journey to Huelva. I also frequently accompanied activists and unionists who supported the workers in Huelva. To gain deeper insights, I conducted 41 interviews with agricultural workers and other stakeholders—including doctors, midwives, employers, members of the Spanish and Moroccan public administrations, activists, and unionists—on a variety of topics relating to agricultural labour migration.[8] I conducted the interviews in Spanish or French, often facilitated by one of the two Darija (Moroccan Arabic) interpreters with whom I collaborated. Most interviews were recorded, transcribed, and subsequently analysed through open and focused coding using the MAXQDA qualitative data analysis software. I used retrospective fieldnotes to collect insights from interviews that I was unable to record at the time.

## Water Stress and Family Life in Rural Morocco

Morocco is part of a region that is highly vulnerable to climate change, as it is subject to rising temperatures, changing precipitation patterns, and increased aridity (IPCC 2021). An analysis of Moroccan climate data from 1960 to 2018 in a national report released by the United Nations Framework Convention on Climate Change reflects reduced rainfall, higher temperatures, and a drier climate, all of which contribute to more frequent and intense extreme weather events, including severe droughts, wildfires, and heat waves (Département du

Développement Durable 2022). The report also indicates that agricultural businesses (particularly family farms) are highly vulnerable. Although droughts are not new in Morocco (Kreuer 2019), in recent years the country has faced a severe water crisis due to low rainfall, industrial agriculture's increasing demand for water, and the uneven distribution of water resources across the country (Khalid and Moujahid 2023). I argue that climate change-related impacts should be understood as forms of geoviolence that stem from the failure of nation-states and other powerful social actors globally to take adequate action to mitigate the climate crisis. While the Moroccan government has undertaken substantial national efforts to mitigate environmental degradation (Van Praag et al. 2021), this case study also illustrates that climate change challenges cannot be effectively addressed by any single nation alone.[9]

As multiple scholars have demonstrated, climate injustice is not caused solely by the capitalist economic system but also deeply rooted in colonial history (Gay-Antaki 2023; Sultana 2022). Morocco's contemporary agricultural dynamics remain shaped by colonial legacies, perpetuating a focus on export-oriented (primarily toward Europe), capital-intensive production—a model rooted in French policies that prioritised export crops and large-scale irrigation while marginalising smallholder farmers (Mathez and Loftus 2023). Over the last two decades, agricultural exports have concentrated heavily on water-intensive vegetables and fruits, driving increased virtual water exports—a contradiction of virtual water trade principles, which state that water-scarce nations should import water-intensive goods and prioritise low-water-use domestic crops (Boudhar et al. 2023). This indirect form of water export reflects a neocolonial pattern, depriving Morocco's land and people of primary resources to meet European consumer demands. Insufficient action by Moroccan authorities and consumer-nation governments to curb water overexploitation for export economies and to mitigate worsening water scarcity constitutes another form of what I construe as geoviolence, perpetuating harm through environmental and socio-economic neglect.

Morocco's water scarcity has far-reaching effects on the nation's economy, social cohesion, and food security (Khalid and Moujahid 2023). Of Morocco's population, 39% work in agriculture, so water shortages directly affect their livelihoods (Choukri 2019). Water stress also impacts female agricultural workers from rural areas, who migrate to Spain to harvest Huelva's strawberries. In an interview, Ayat, a Moroccan woman who had been migrating to Spain seasonally for more than ten years before deciding to stay there permanently, reported the situation in her hometown:

> This year we only have tap water for an hour and a half. We used to have water all day. People from the village save it in big cubes for cleaning, washing, cooking … They are opening [the ground] with machines to more than 150-metre depths to reach the groundwater. I remember when I was a girl, you could see the water at around 20 metres depth … It's been three years since the water started to go down. But this year, I have never seen anything like it. When I visited my town in March, it broke my heart. You see red soil everywhere, there is nothing green anymore. Normally, at this time of the year, we had beautiful flowers—yellow, red, white—well, like a natural garden, but not anymore. (Ayat, April 2023)

Ayat's account exemplifies how water scarcity affects not only Moroccan geophysical land, but also people's ability to manage intimate everyday activities, such as cooking and cleaning. Moreover, as the soil becomes increasingly infertile due to the dwindling availability of water, the plants that once grew are disappearing, and local communities are struggling to sustain their livelihoods. Thus, this quote serves as an example of geoviolence affecting humans, nonhumans, and the spaces they inhabit: It not only threatens individuals' basic existence, but it also engenders place-bound emotional suffering—what Pain (2021) refers to as "geotrauma".

When I began writing this article in February 2024, Ayat told me that there was no more drinking water in her hometown. The available water had begun to give the villagers itchy skin, so they no longer drank it, although they still used it for household purposes, such as washing or watering plants, thus exemplifying how geoviolence impacts their intimate well-being. To obtain drinking water, family members now must travel by car to another village or buy it from the supermarket. At best, this places additional pressure on tight household budgets, and at worst, it is simply unaffordable.

As most Moroccan women migrating to Huelva for agricultural work come from rural and agricultural backgrounds, Ayat's account illustrates how Morocco's water scarcity can critically impact their families' everyday lives. Geoviolence resulting in water scarcity directly affects the availability of paid work and impinges on everyday household activities, such as cooking and washing. As adverse geophysical conditions exacerbated by climate change, droughts can disrupt the livelihoods and environments of Moroccan families. This intimate form of suffering demonstrates the extent to which efforts by states and supra-state organisations to address the planetary climate crisis remain insufficient. Combined with capitalist-driven overuse of the remaining water resources, this can be understood as geoviolence that affects both humans and their environments.

## Protracted Family Separation amid Water Scarcity in Spain

Like Morocco, Spain is increasingly experiencing the consequences of climate change. In the spring and summer of 2022 and 2023, its temperatures were among the highest since measurements began, leading to widespread drought (Lemus-Canovas et al. 2024; Serrano-Notivoli et al. 2023). Furthermore, climatological predictions indicate that Spain can expect an increase in droughts throughout the 21$^{st}$ century as a result of climate change (IPCC 2023; Jiménez-Donaire et al. 2020). Huelva is one of the regions that is particularly affected by water stress. Despite warnings beginning in the 1980s regarding the detrimental effects of irrigated agriculture on Huelva's Doñana wetland, ineffective water management efforts, compounded by droughts, have resulted in severe ecological disturbances, including a marked decline in biodiversity (Buier 2024; Green et al. 2024)—an example of geoviolence generating adverse geophysical conditions by endangering water resources and soil quality.

Such environmental degradation can have a strong impact on the agricultural sector. According to the account of one of its farmers, in 2023, several berry producers encountered accelerated maturation of their berries, resulting in a concentrated high yield that lasted for one or two months, followed by months of reduced yields due to water shortages. The climatic conditions and their effects on the harvest meant that over the course of the entire picking season, many migrant workers from Morocco had less work than usual. This can have dire consequences, as the money workers earn during the berry season is often intended to sustain their families for a large part of the year. On a field visit with an activist, a group of Moroccan workers reported that their employer had told them that there was no more work, and they should return to Morocco. We went to their farm, where the employer told us the following:

> My fields are dry. Therefore, there is little work at the moment. Maybe next year the workers won't even come back, and we won't have this problem. Because maybe there won't be enough water for the plants. (Employer's statement, retrospectively paraphrased in author's fieldnotes, May 2023)

Climate scientists have indicated that accelerating climate change will manifest through more intense and extreme weather events, including heavy rainfall, wildfires, droughts, and heatwaves (Clarke et al. 2022). This employer's statement indicates that such developments will most likely also affect berry companies, which may have to reduce or reorganise their plantations; in turn, this may result in reduced profits and severe challenges, especially for small operations. For Moroccan workers, less or no work can lead directly to food shortages for entire families. Water scarcity and a possible subsequent decrease in berry production thus poses an immediate challenge for Moroccan workers. Ayat and Faiza described this fear:

> This year is crazy because of the lack of water. Many women have not earned [the full amount of money for the season]. Some only worked for 15 days and then were sent back because there was no fruit to pick … I've heard of an employer who told his workers that they would only return next year if there was enough rain. Many women are afraid that they will not be able to come back. (Ayat, May 2023)

> Without work, I will not be able to feed my children. So, I stay here [in Spain], even though it causes me a lot of anxiety. (Faiza, May 2023)

As these statements indicate, water scarcity together with other factors can push female seasonal workers to consider staying in Spain, rather than returning to their hometowns. Research has highlighted how water shortages and climate injustice disproportionately affect individuals along the lines of gender, race, and class (Mikulewicz et al. 2023). These characteristics play a direct role in the experiences of seasonal work in Huelva, particularly through country- and gender-specific recruitment strategies that result in prolonged separation of Moroccan mothers from their families. Faiza's statement underscores the gravity of the decision to remain in Spain, which often involves careful consideration. In previous years she had sent home money from Spain, then spent the rest of the year partly

working in agriculture in Morocco. However, returning to Morocco now runs the risk of limited job opportunities, while securing reemployment in Spain may also be difficult. She is aware of the risks of remaining in Spain, in particular her vulnerability due to a possible undocumented visa situation and her limited language skills. Those who opt to stay in Spain without official papers often need to wait several years to secure residency before they can legally travel between Spain and Morocco again. By staying in Spain, Faiza can secure her children's upbringing, even from a distance. She decided to stay with the hope that one day she would be able to reunite her family under better conditions. Faiza's example demonstrates her agency in addressing geoviolence in an intimate realm by carefully choosing the best available option for herself and her family. Being torn between their wage labour in Spain and their reproductive lives in Morocco places workers like Faiza in a state of "intimate liminality" (Komposch et al. 2024): they experience the emotional and embodied effects of being between two stable states. The quotes above illustrate how environmental degradation can influence migratory decisions and thereby prolong periods of intimate liminality.

Recognising that migration policies are intentionally shaped by states, and that droughts are exacerbated by the negligent failure to address climate change on the part of states, supra-state organisations, and multinational corporations, underscores how geoviolence is primarily perpetrated by powerful entities. At the same time, recognising workers' agency in finding strategies for themselves and their families highlights their active role in navigating and contesting outcomes of geoviolence.

## Maternal Concerns about Children's Future

As described in the previous section, geoviolence can lead to prolonged family separation, presenting numerous challenges for these communities. Furthermore, several women I interviewed indicated that water scarcity also exacerbates their anxieties about their families' futures. Malika, a Moroccan worker who is suffering from breast cancer, expressed such concerns:

> This year, the lack of rain has affected us a lot. My family's avocados didn't grow well, so my family has earned almost nothing this year. I talk to my children on the phone every day and they always talk about it [the water problem]. I told them not to talk to me about it anymore. I am sick and when my children tell me about more problems, I cannot sleep, and it makes me even sicker. (Malika, May 2023)

This illustrates that the water crisis impacts family structures not only by prolonging physical separation but also by exacerbating maternal stress, thereby intensifying emotional suffering. Her example demonstrates how geoviolence can inflict harm on a very intimate scale, affecting the body and emotions.

The maternal concerns of some Moroccan female workers in Huelva extend beyond immediate worries about water scarcity. During my fieldwork, several women expressed concerns that their relatives in Morocco were considering migration. Research indicates that the effects of climate change—notably droughts and their effects on human vulnerability—contribute to migration

decisions, often pressuring communities in agrarian areas to migrate either to urban centres or other countries (IPCC 2023). While recognising migration as a multi-causal phenomenon extending beyond environmental factors, research highlights climate-related migration as a critical and growing challenge in Morocco (Ferreira Fernandes et al. 2023, Van Praag et al. 2021). One report estimates that climate-induced changes in rainfed agriculture could result in the out-migration from rural to urban areas of up to 1.9 million Moroccans by 2050 (Megevand and Diaz Cassou 2023). Although most migration occurs internally, international migration is becoming more prominent, especially for workers with low levels of education (El-Amin and Al-Zu'bi 2022). People from rural areas often migrate to Europe via perilous routes, facing human trafficking and exploitative labour conditions (Brown et al. 2021). In 2023, overseas migration from Morocco and Western Sahara to Spain increased by 29% (UNHCR 2024). During an interview, Ayat linked out-migration to the water crisis and the rising food prices:

> Things [mostly referring to food] are almost at the same price as in Spain. It's very hard. And because there is no water, people cannot plant anything. Some sell their land and animals and try to leave. People also leave by boats [...] However, the Mediterranean is difficult to cross, since it is closed by the police. (Ayat, April 2023)

This highlights the reality that increased controls along Europe's borders make migration increasingly difficult and life-threatening. In 2023, 6,618 migrants lost their lives attempting to cross the Mediterranean or the Atlantic to reach Spain (Mellersh 2024), partly due to Europe's repressive border controls. The instrumentalisation of adverse geophysical conditions for the enactment and obfuscation of border violence based on colonial and racist logics has been documented in different European contexts, such as the UK–France border (Davies et al. 2024) and the Mediterranean border, where racial segregation is increasingly employed to construct the Mediterranean space as a "natural border" (Raeymaekers 2024). This instrumentalisation of the Atlantic Ocean and Mediterranean Sea as natural barriers by European nation-states exemplifies how geoviolence can also manifest through the intentional use of existing adverse geophysical conditions. Studies have documented border violence associated with the militarisation of Europe's external borders, both through agencies like Frontex and through more indirect measures, such as the withdrawal of rescue vessels (Isakjee et al. 2020; Schindel 2022). As reported by the Office of the High Commissioner for Human Right of the United Nations (OHCHR 2021), unanswered emergency calls, insufficient sea rescue capacities, dangerous interception practices, pushbacks at sea, and the criminalisation of humanitarian organisations are among the factors that prevent people in distress from being rescued. This reveals the intentionality of this type of geoviolence. European nation-states' use of the adverse geophysical conditions of the open sea to deter migration directly results in human suffering and death. In a group interview, Faiza reported:

> My son is asking me for permission to take the boat because he can't find work in Morocco. I want him to come, but not by boat. I couldn't say yes. It's very risky. (Faiza, May 2023)

The possibility that her child might perish during a precarious ocean journey in an attempt to find employment in Europe is a source of intense anxiety for Faiza. Although she knows her son's chances of finding work in her hometown are very low due to water scarcity, she cannot approve of such a risky migration strategy. This demonstrates how geoviolence challenges her ability to parent her children in safe conditions—a key pillar of reproductive justice[10]—and thereby exacerbates her maternal worries. This account illustrates how the climate crisis, combined with inherently violent border regimes, profoundly impacts family dynamics by extending the painful experience of separation. Geoviolence thus becomes perceptible in two ways: the exacerbation of adverse geophysical conditions through human impacts on partly climate-induced droughts, and the instrumentalisation of adverse geophysical conditions through the use of the Atlantic and the Mediterranean as natural barriers to irregular migration. Both forms of geoviolence intensify mothers' worries about their families' well-being. Moreover, as one of the most extreme manifestations of geoviolence, the increasing necessity of undertaking perilous out-migration also exposes Moroccan workers' family members to the gravest risk imaginable—death. The normalisation of such life-threatening risks and intimate geotrauma for certain bodies in certain families highlights the disparities in how different lives are valued across intersecting social categories.

## Political Agency and Tactics of Solidarity

The preceding sections have discussed the challenges workers face with regard to their intimate lives—challenges that arise from a combination of water scarcity and repressive migration regimes. Given the inherent systemic obstacles that shape the lives of migrant farmworkers in Huelva, the workers' everyday tactics of solidarity and political agency are remarkable. In both Morocco and Huelva, people organise and find strategies to confront difficult situations related to water stress and associated challenges. It is noteworthy that (geo) "violence dispersed across time and space also shapes the conditions for political organizing" and therefore "political agency may not take the form of visible and openly organized oppositional movements" (Vorbrugg 2022:453). Further, as Pain and Staeheli (2014) have demonstrated, intimacy is not only shaped by power relations, it is also a sphere in which resistance to domination can emerge. Such feminist writings on more subtle and intimate forms of political resistance (for further examples, see Öcal and Gökarıksel 2022) reveal how quotidian interactions and practices can challenge multiple forms of oppression. Acknowledging the context of geoviolence that these groups navigate, this section highlights their everyday exercise of political agency and solidarity.

During a follow-up conversation in February 2024, Ayat shared multiple strategies for facing challenges related to the water crisis:

> Since there is less water, people from my village get it from another village, 15 minutes away by car. Many of them don't have a car, so the neighbours transport

> water for one another … People have also been protesting in front of the municipality building for political changes that ensure their access to water. (Ayat, February 2024)

Her account exemplifies how essential collective action can be in such precarious living conditions. By practicing mutual aid to help each other access water, people strengthen their communities in intimate ways, fostering further organising efforts—including protests for political change.

Political agency and solidarity work are also present in Moroccan workers' lives in Huelva as described in the following situation (alluded to above) that I encountered during my fieldwork:

> A feminist collective received a call from Moroccan workers who had been informed by their employer that due to a water shortage, there was no longer enough work for them. They were told they would have to go back to Morocco after only ten days of work. Together with another member of an informal activist network, I visited the farm. The women expressed concerns of leaving and wanted to find a collective solution that would benefit the entire group. After some discussions, the employer eventually sought work for the women at another company. Two days later, the collective was informed that the employer had found another workplace for them. (Author fieldnotes, May 2023)

On this occasion, the workers' political organising was successful—an outcome that is not guaranteed—thus enabling them to achieve their objective of maintaining employment. Notwithstanding the challenges to labour organisation in the agricultural labour sector, workers organise in multiple strategies (e.g. workers' protests and legal complaints). In their book about Huelva's berry industry and the feminist self-organised workers' collective, *Jornaleras de Huelva en Lucha* ("Huelva Day Labourers in Struggle"), Castro and Pinto (2023) describe how the collective documents and contests recurring grievances reported by workers regarding non-compliance with labour laws.

Furthermore, workers also employ subtler strategies of solidarity. On several occasions, workers told me how they had either received support from or given support to other women in similar situations. As Ayat describes, this intimate support becomes essential if women decide not to return to Morocco:

> I told her [a co-worker] that it isn't easy to stay here. It's hard to find work without papers, and many people can betray you, especially if you don't speak Spanish. The most painful thing, however, is that you won't see your children for a long time … Whatever I can do to support her, I will. (Ayat, paraphrased in author fieldnotes, May 2023)

Numerous workers also shared their strategies for supporting one another emotionally, strategically, and materially. This included listening to each other speak about the emotional pain of family separation, giving advice on how to deal with difficult working conditions, carrying gifts for family members to Morocco on behalf of friends who could not return due to their migratory status, strengthening each other's well-being by eating, talking, or dancing together, or helping each other find support from local lawyers or unions. One interviewee's account of screaming out her rage in nature alongside a friend illustrates how reclaiming

space for vocalising intimate feelings provides another example of everyday forms of mutual support. Paying attention to violence and geotrauma, as Pain (2021:974) writes, not only brings into focus "lived experience [and] the repositioning of survivors as experts in narrating trauma" but also "recognizes the work of reclaiming space after dispossession".

## Conclusion

In this article, I have argued that the human generation, exacerbation, or instrumentalisation of geophysical adversities, as well as the resulting negative impacts on human or nonhuman beings, their communities, or the environments they inhabit, should be considered a specific form of violence—geoviolence. This paper explores the ramifications of geoviolence in the lives of humans and their environments through an examination of the effects of anthropogenic climate change and migration regimes on the intimate lives of female Moroccan farmworkers who labour in Huelva's berry industry. Human-induced climate change exacerbates water scarcity in both Spain and Morocco, posing multiple challenges to the intimate, everyday lives of Moroccan women. The instrumentalisation of the adverse geophysical conditions of the Mediterranean Sea and Atlantic Ocean, as well as their geophysical surroundings, for policing borders to guard against irregular migration further increases migrants' intimate suffering. Acknowledging that structural inequalities lead to such violent outcomes, this study also highlights the multiple ways in which agricultural workers and their families deal with and contest the outcomes of geoviolence through everyday practices of political organising, mutual support, and solidarity.

As an analytical tool, the concept of geoviolence enables the tracing of the links between human actions, adverse geophysical conditions, and intimacy. Centring the analysis on human action facilitates understanding the multiscalar socio-environmental dimensions of these processes, thereby enabling the identification of pathways for accountability and transformation. Although the concept of geoviolence can be useful for reflecting on individual behaviour on this planet, given the constraints on individual agency, the concept is primarily intended to identify the responsibilities of the most influential human entities—states, supra-national organisations, and multinational corporations—as key sources of geoviolence. Recognising that "only *a few* social groups and *specific* economic practices are responsible for our proto-apocalyptic situation" (Ouma, in Verne et al. 2024:166, author's translation), multiple scholars have emphasised the need to identify those accountable for climate and social injustice (Diprose et al. 2019). For example, Öcal (2021) asked both whether nation-states have an obligation to protect the people of endangered countries, and if so, which nation-states bear the greatest responsibility for disappearing territories, given disparities between nations' carbon footprints. Goldstone (2024) goes further by proposing that countries made wealthy by colonisation owe the right to immigrate to those whose lands and rights they took. Although the complexity of planetary interrelations makes it difficult to identify accountable parties, it remains important to further investigate these questions in both research and policymaking. As this article

argues, the effects of geoviolence manifest in multiple ways, and their origins can be located in the practices of powerful human actors. In the face of accelerating climate change and the increasingly damaging effects of geoviolence on the intimate lives of humans, nonhumans, and their environments, it is particularly important to understand such multiscalar connections between human action, violence, and harm in order to work collectively toward a socio-ecological turnaround.

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## Data Availability Statement

Research data are not shared.

## Endnotes

[1] All interview participants have been assigned pseudonyms.

[2] In 2001, Spain began to establish targeted origin-based labour recruitment programmes (*Gestión Colectiva de Contrataciones en Origen* [Ministerio de Inclusión, Seguridad Social y Migraciones 2022]) with countries such as Colombia, Ecuador, Poland, Romania, Bulgaria, Ukraine, and Morocco. Origin-based contracts allow employers to recruit temporary workers directly from their home countries. While several hundred workers were recruited from Morocco in the programmes' early years, that number has increased over time (Hellio 2016).

[3] Although the bilateral agreement does not explicitly state these selection criteria, they emerge as implementation practices during the recruitment process.

[4] Many low-income Moroccan families lack private showers and therefore depend on public *hammams* for their everyday hygiene practices. Thus, water scarcity directly affects people in intimate ways.

[5] For the sake of readability, I use the term "climate change" to refer to anthropogenic climate change. Although I acknowledge that not all climate change is human-induced (natural variability in the climate system also leads to changes), this article focuses on the intensification of weather phenomena within the context of the global climate crisis, recognising that climate change is only one of the six planetary boundaries that has already been crossed (Richardson et al. 2023). Although droughts in Morocco may be partly due to natural hazards and regional weather patterns, the overall intensification of such weather phenomena reflects the violent impact of the human forces driving the current climate emergency (IPCC 2021).

[6] As argued in previous work, the "planetary-intimate" multiscalar approach—which refers to the interweaving of the planetary and intimate realms—enables the inclusion of a more-than-human perspective on scale (Komposch 2025).

[7] The term has also been used to refer to slow violence in the geological realm of deep time (Ginn et al. 2018), to political violence in Guatemala (Zur 1994), to the relationship between earthquakes and dislocations of the lithosphere (Sibson 2008), to administrative violence against trans-communities (Mills et al. 2017), as well as to describe the violence perpetrated by the Israeli military in Palestine (Hasan and Bleibleh 2023). However, none of these works conceptualises the notion in greater detail.

[8] I interviewed some participants several times and conducted some group interviews.

[9] The Climate Change Performance Index—an annual comparison of the climate performance of 63 countries and the EU (accounting for 90% of global emissions)—ranks Morocco among the nations demonstrating relatively strong climate mitigation performance. However, the index emphasises that no country has yet achieved "sufficient" climate action and underscoring the urgent need for accelerated global progress (Burck et al. 2024).

[10] The term "reproductive justice" was coined in the US during the 1990s by Black feminists to describe entitlement to bodily autonomy, including in decisions regarding childbearing, childlessness, and parenting of children within safe and sustainable communities (Ross and Solinger 2017).

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