Environmental Justice and the (Re) Production of Sacrifice Zones: The Impact of Migration Policies and Practices in the Aegean

Rita Lambert & Jessie Sullivan

Published online: 13 Sep 2025.

Submit your article to this journal

Article views: 176

View related articles

View Crossmark data

Routledge
Taylor & Francis Group

RESEARCH ARTICLE

Environmental Justice and the (Re) Production of Sacrifice Zones: The Impact of Migration Policies and Practices in the Aegean

Rita Lambert[a] and Jessie Sullivan[b]

[a]The Bartlett, University College London, London, UK; [b]Institute of Education, University College London, London, UK

ABSTRACT

As displacement increasingly shapes contemporary realities, powerful nation-states are adopting securitisation strategies that externalise their borders and designating specific territories to absorb 'excess' populations, particularly along migration corridors. This trend necessitates further research to understand the impacts in relation to broader concepts of justice. This paper illustrates how an environmental justice lens enriches existing scholarship on the 'dark side' of migration management, by examining the social and environmental consequences that transform host territories into sacrifice zones. We apply an environmental justice framework to the five Aegean islands identified by the European Commission's hotspot approach in 2015 for managing migration into Europe. These fragile ecosystems face significant environmental degradation and social inequities stemming from the containment of displaced individuals and refugee camp infrastructures. We argue that environmental violence is a mechanism of power, enhancing control over marginalised bodies and warranting greater attention in both theoretical and empirical studies. Through participatory action research, this study reconstructs the trajectory of the hotspot approach, analysing the distributive and procedural injustices that exacerbate ongoing humanitarian and environmental crises. Our findings reveal that the hotspot approach, rooted in a colonial mindset, exploits both the tangible and intangible assets of these islands, transforming them into sacrifice zones and enabling controlling agendas. Using an environmental justice framework underscores the processes that restrict individual and collective agency, exploit vulnerable ecological systems, and undermine the structures that protect rights and advocate for affected territories.

Introduction

According to the UN Refugee Agency, the world's refugee population has reached approximately 43.4 million people, effectively tripling in only the last

CONTACT Rita Lambert ✉ rita.lambert@ucl.ac.uk 🖅 The Barlett Development Planning Unit, University College London, 34 Tavistock Square, London WC1H 9EZ, UK

decade (UNHCR 2024). This number is forecasted to increase, and sharply so, as the climate emergency, political instability and widening inequality continue to fuel the movement of people across borders. A significant shift is evident as national approaches give way to regional and global strategies for containing and managing displaced populations. Looking at how displacement is spatially distributed, we identify an uneven landscape where specific peripheral territories, along corridors of mobility, are designated to absorb 'excess' populations.[1]

Powerful nation-states have increasingly targeted border zones and peripheral regions, beyond their geographic limits, as part of their broader security strategies (Bousiou and Kontis 2015; Casas-Cortes, Cobarrubias, and Pickles 2015; Martini and Megerisi 2023). This has enabled them to distance the immediate impacts of refugee arrivals while imposing security-driven agendas on host communities (Betts 2009). A prominent example is Australia's collaboration with Nauru to detain and process asylum seekers, illustrating a broader trend in which wealthier nations outsource refugee management to peripheral or less powerful regions (Morano-Foadi and Malena 2023). Similarly, the European Union (EU) has partnered with Turkey to manage refugee flows, effectively shifting the burden of refugee hosting responsibilities (Léonard and Kaunert 2019). As part of this, the European Commission has institutionalised the 'hotspot approach' – a mechanism which is part of the European Agenda on Migration presented in April 2015. This approach involved the establishment of detention infrastructures in key EU frontier zones, and the implementation of procedures for identifying and filtering migrants (Tazzioli and Garelli 2016). What were initially framed as emergency, short-term measures have since evolved into entrenched, long-term strategies with profound social and environmental consequences.

On the southern edge of the EU, islands such as the Canaries in Spain, Lampedusa in Italy and the Aegean in Greece have been earmarked as refugee hotspots to contain displaced populations and are therefore disproportionately burdened. These territories function as 'semi-colonised' zones, legal and humanitarian grey areas, where camp infrastructures often operate as legal 'blind spots' (Papoutsi et al. 2019), and where numerous human rights violations have been documented (Kolliniati 2024; Manek 2025; Slingenberg 2025; Witcher 2021). This aligns with much scholarship and advocacy that have critically examined the structural violence embedded in migration management, highlighting its far-reaching impacts not only on refugees (Agier 2011; Bousiou 2020; Bousiou and Papada 2020; Davitti 2018), but also on those engaged in care provision, human rights advocacy, and policy implementation on the ground (James 2019; Kolliniati 2024; Manek 2025; Papataxiarchis 2016a, 2016b).

Although the necropolitical and biopolitical dimensions of border governance, where migrants are subjected to processes of 'othering' and exclusion,

have been extensively analysed (Athanasiou and Tsimouris 2013; Dines, Montagna, and Ruggiero 2015; Mbembe 2003), there remains limited research on the environmental and social consequences of these externalised migration policies on host territories themselves. In particular, there is a pressing need to examine how migration governance and practices contribute to the (re)production of what can be termed 'spaces of least resistance' – zones where bordering and securitisation are intensified to serve the geopolitical and economic interests of more powerful states. These dynamics transform frontline regions into sacrifice zones, where the burdens and costs of border control are disproportionately offloaded with negative environmental and social ramifications.

As displacement defines the future, it is critical to interrogate why and how sacrifice zones come to be, and their entanglement with histories of colonial duress (Stoler 2016) and broader questions of justice. Displacement is not an isolated or unpredictable phenomenon; rather, it is deeply embedded in the dominant capitalist system and its extractive, exploitative modes of production (Araghi 2009; Gonzalez 2020; Morris 2024). Recognising that humanitarian emergencies are not merely natural or spontaneous events but the outcomes of deliberate policy choices and actions (Alcalde 2016), there is an urgent need to critically assess how migration management policies and practices contribute not only to social domination but also to environmental degradation. While immediate humanitarian concerns often take precedence, the long-term ecological consequences of prolonged displacement and settlement are frequently overlooked. Moreover, the increasing militarisation and securitisation of borders and refugee camps (Martini and Megerisi 2023) have further marginalised environmental considerations, diverting attention from the urgent need to identify and mitigate the ecological impacts of these policies and actions.

We posit that the management of migration, rooted in neoliberalism, aggravates the humanitarian and environmental crisis, which in turn legitimises further emergency control. This paper aims to contribute to the growing literature that calls for a critical examination of the perverse logic of displacement by uncovering the systemic and historical structures that perpetuate injustices. It does so by bringing environmental concerns to the fore and tracing the events, practices and spatial manifestations, to highlight the overt and covert mechanisms at play that produce and maintain sacrifice zones.

We seek to contribute to border and migration studies by applying an Environmental Justice (EJ) framework to the understanding of how sacrifice zones come to be. EJ treats social and environmental concerns as intricately connected and co-produced. It offers a powerful lens for understanding how the spatial distribution of environmental harms, such as pollution, land degradation, and resource depletion, intersects with the marginalisation of people. It reveals how certain geographies, often already socially and ecologically vulnerable, are systematically chosen as sites for containment, detention, and

exclusion. These are not incidental outcomes but are embedded in broader political economies of extraction, control, and disposability.

Hence this paper illuminates how environmental degradation is not merely a backdrop, but a constitutive element of migration governance. It shows how the control and subordination necessary to contain displacement are materially grounded in landscapes that are rendered expendable spaces where both people and natural systems are sacrificed in the name of security, order, and economic rationality. In this way, environmental justice helps to uncover the spatial politics of migration management and the uneven geographies of harm it produces.

This paper first situates our contribution within the existing scholarship, elaborating the notion of sacrifice zones and environmental justice. Second, we give a brief contextualisation of the Aegean hotspot islands, highlighting the social, economic and environmental challenges. Third, we describe the methodology adopted to trace the genealogy of migration policies and practices, and their socio-environmental impacts. Fourth, we apply the environmental justice framework to analyse the distributive and procedural injustices that maintain the islands in a permanent state of vulnerability. Finally, we conclude by highlighting the contributions of an environmental justice lens and offering a window for further research.

Violence and Sacrifice in the Management of Migration

Many scholars and advocates have critically examined the violence inherent in migration management through the lens of biopolitics, as articulated by Michel Foucault and further developed by contemporary theorists (Agamben 1998; Athanasiou and Tsimouris 2013; Foucault 1978; Minca et al. 2022; Tazzioli 2020a; Topak 2014). Biopolitics refers to the governance of populations via various forms of power that extend beyond traditional sovereignty, focusing on the control of life, bodies, and the conditions in which individuals exist (Foucault 1978). Research highlights how displaced individuals are systematically categorised, surveilled, and regulated by both state and non-state actors (Dines, Montagna, and Ruggiero 2015). These biopolitical strategies shape migrants' identities and affect their access to resources and social inclusion, particularly when confined to camp structures (Minca 2015). Agamben (1998) introduces the concept of the state of exception, wherein certain populations are excluded from legal protections and reduced to 'bare life', a condition of existence outside the political community. This exclusion is not accidental but structural, as evidenced by the systemic negligence faced by asylum seekers, and is deeply entangled with histories of colonialism, racial capitalism, and carceral logics. This negligence is seen by many as a deliberate biopolitical strategy employed by the EU and its member states under the European

Agenda on Migration (Davitti 2018). They argue that migration management is not merely about regulating entry but about managing life itself – deciding who is allowed to live, move, and belong, and under what conditions (Tazzioli 2020a). Recent scholars further argue for moving beyond the Foucauldian binary of 'make live and let die' to understand the complex, often contradictory logics of humanitarianism and securitisation that shape border politics (Minca et al. 2022).

Much empirical scholarship related to displacement and migration tends to focus on the humanitarian aspects of refugee protection, as well as life supporting systems in camps, such as housing, water, food and energy (Dalal 2020; Guarnieri 2004; Lehne et al. 2016). The focus is on the human impacts and much less consideration is given to the effects on host territories and the broader implications on the environment. Studies that have focused on environmental degradation and displacement have done so in relation to climate change (Balsari, Dresser, and Leaning 2020; Ghosh and Orchiston 2022). A few studies highlight the environmental conflict arising from the interactions between refugees and host communities and the need for sustainable resource management (Betts et al. 2023; Martin 2005). However, limited attention is placed on the environmental impact of migration policies and associated practices and how they relate to inequalities. Moreover, most of the attention is on the impact on migrants; little is known about other actors, outside state and international agencies, which include local residents, volunteers and civil society groups. We hereby posit that a socio-environmental lens, often absent from existing biopolitical analyses, would focus attention on environmental concerns and these less visible actors, enriching how we examine and understand biopolitical control.

Challenging the assumed dichotomy between 'nature' and people, we start from the premise that humans and non-humans, or 'more-than- humans', are interconnected (Lorimer and Hodgetts 2024). More recently, migration scholars have been taking a relational approach that acknowledges the materiality and physicality of bodies and spaces in shaping social realities. The environment, or more specifically, the physical terrain and its interaction with humans has been a focus of migration research, particularly for border archaeologists who examine how both man-made infrastructures and seemingly 'natural' features, such as oceans, deserts, and mountains, form militarised landscapes designed to render cross-border environments lethal for migrants (Pallister-Wilkins 2022; Schindel 2022; Tazzioli 2020b). This work underscores the need to reassess how environmental factors intersect with exclusion and control. Adding a spatial and environmental dimension to these debates, Schindel (2016, 2022) argues that EU border policies force migrants to take increasingly dangerous routes, effectively outsourcing the violence of the border to 'nature'. Prolonged exposure to harsh environments leads to migrant deaths that occur in unobservable spaces, thereby obscuring accountability and rendering this

violence invisible to the public. This form of indirect violence reflects a broader agenda of control which involves 'nature'.

In line with this, Sundberg's work sheds light on the significance of landscapes and wildlife in boundary enforcement allowing for a nuanced understanding of how non-human entities participate in socio-political relations, influencing the experiences of migrants (Sundberg 2008, 2011, 2014). Similarly, in critical border studies, Pallister-Wilkins (2022) argues for a deeper consideration of the 'natural' world. She asserts that it is vital to understand not only how (im)mobile bodies interact with diverse spatialities but also the role of more-than-human actors in the formation of these spaces, which often reflect and reproduce racialised power structures. Likewise, Raeymaekers (2024) calls for more situated research into the complex networks and agencies involved in bordering processes, which encompass interactions across 'human' and 'more-than-human' boundaries. He introduces the concept of border infrastructures and highlights how these actively reproduce a logic of separation, perpetuating hierarchical divisions among human populations while also shaping ecological relationships.

Building on this scholarship, we look at how environmental degradation is part and parcel of the heterogeneity of biopolitical technologies, or what Aradau and Tazzioli (2020) call biopolitics multiple. We seek to better understand how environmental degradation, produced as an effect of migration policies and practices, relates to social degradation and the (re)production of sacrifice zones. Scholars have argued that sacrifice zones are created through systemic inequalities rooted in capitalism, colonialism and racism (Pellow 2018; Walker 2012). The residents of these zones, often marginalised populations, are subjected to high levels of environmental, cultural, and/or economic harm. The concept of sacrifice zones was developed within environmental justice literature (Juskus 2023). Initially, this notion emerged from a conservationist framework; rather than seeking to eliminate environmental harm, early interpretations of sacrifice zones aimed at minimising damage or shifting it elsewhere (Ibid). The indigenous and civil rights movements in the US in the 1980s used the terminology of 'sacrifice zones' to analytically connect the ways land proximate to and important to communities of colour was used for dumping waste and toxic materials, both the land and the people there being designated worthy of 'sacrifice' by the government. More recently, the term 'sacrifice zone' has been extended to provide an instrumentalist perspective regarding displaced populations. Governments or powerful institutions may 'dispose' of undesirable 'surplus', displaced populations by relegating them to the margins, to zones of sacrifice. Within these spaces of sacrifice, there are opportunities for racialisation, policing, and containment to produce new opportunities for profit extraction (Bird and Schmid 2023).

Displacement fostered by racial capitalist processes and the migration industry's response can be further understood through a colonial lens, as has

been explored by Araghi (2009), Bird and Schmid (2023), Mayblin (2017), and Mayblin and Turner (2020). For instance, Stoler's exploration of 'debris' and 'ruination' provides a critical context for examining the dispossession and disposability of both land and life that accompany such displacements (Stoler 2016). By connecting these diverse frameworks of waste and ruin to both human and non-human contexts, Stoler elucidates the intricate relationships between colonialism, capitalism, and environmental degradation. Terms such as 'zones of neglect' (Agamben 1998; Nixon 2011), 'urban zones of social abandonment', and 'human ruin' (Biehl and Eskerod 2013), as well as 'zones of containment' (Stoler 2016) and 'repositories of vulnerabilities' (ibid), all reflect enduring structures and impacts that persist beyond the political frameworks that engender them. These concepts evoke themes of disposability, neglect, and waste, with their racial and colonial dimensions. In summary, the exploration of sacrifice zones and their associated populations highlights the intertwined legacies of colonialism, capitalism, and environmental injustice, revealing a complex landscape where disposability and vulnerability are systematically produced and perpetuated. Given that sacrifice zones and environmental justice (EJ) are closely interlinked, EJ provides a crucial framework for understanding the mechanisms and impacts of migration policies in turning host territories into zones of sacrifice.

Casting an Environmental Justice Lens on Migration Management

EJ lacks a singular definition, reflecting a rich pluralism shaped by collective experiences of injustice and grassroots movements to address racial and environmental inequalities. Activist groups articulated forms of environmental injustice to establish a critical framework for recognising how race and class intersect with environmental policies, initially framing these issues as environmental racism. Early discussions focused primarily on the spatial distribution of environmental hazards, linking social inequities directly to environmental degradation, and advocating for fair treatment in environmental policy (Bryant and Mohai 2019). As awareness grew, the discourse expanded to encompass not only the socially just distribution of goods in society as advocated by John Rawls (1971), but also the procedures that ensure people are recognised and can participate in decision making processes to address systemic inequalities (Fraser 2000; Young 2002). Hence scholars emphasised the three dimensions of EJ as overlapping: distribution, participation, and recognition (Schlosberg 2007).

Distributional justice refers to how benefits and burdens, as well as opportunities, risks and responsibilities, are distributed among different actors and societal groups (Walker 2012). Participatory justice focuses on the extent to which different actors and societal groups are meaningfully involved in decision-making processes. Finally, recognitional justice addresses whose

identities, values, interests, knowledge and worldviews are legitimised, respected, and valued in interpersonal encounters, public discourse, and practice. Schlosberg (2007) argues that recognitional justice is inseparable from the other two dimensions, as it influences whose values matter in evaluating fair costs and benefits, whose knowledge is prioritised in decision-making, and whose justice norms are deemed legitimate in comparison to others. Hence environmental justice looks at fair distributions of good and bad in society emphasising also the need for recognition and meaningful participation of marginalised groups in decision-making processes.

The rise of the global environmental movement in the late 20th century further expanded these debates. Over time, research has moved from a sole focus on race to a broader understanding of injustices, leading to the development of Critical Environmental Justice studies (Pellow and Brulle 2005; Pellow 2018). This shift recognises that the impacts of environmental burdens extend beyond traditional racial and class boundaries, affecting diverse groups. These studies emphasise intersectionality, which examines how overlapping social identities shape distinct environmental experiences (Pulido 2017) and advocate for a deeper understanding of historical contexts and systemic injustices rooted in colonialism and capitalism (Schlosberg 2007). Additionally, critical studies broadened the focus to include non-human actors, emphasising the indispensable role of both humans and more-than-human actors in building just sustainability, underscoring the significance of grassroots movements and local resistance in challenging injustices (Lorimer and Hodgetts 2024; Whyte 2020). Critical EJ shares much with Political Ecology due to its multiscalar approach and critique of the state. It emphasises a transformative approach to dismantling the structural inequalities embedded within environmental governance. Over the years, EJ scholarship has encompassed an expansive range of issues, including water, soil, and air pollution; workers' health and safety; pesticides; parks and recreation; energy transition; CO_2 emissions; climate-induced migration; North – South divide; food sovereignty; and conflicts between human beings and the natural environment; making it relevant across different geographic regions and historical timelines (Rosignoli 2022).

EJ has had little coverage in the context of migration and border studies, with the exception of Pellow and Vazin (2019), who analysed the disproportionate health risks and harms on the population of migration detention facilities in the US, predominantly people of colour and undocumented. Despite its limited application, EJ offers a powerful lens for understanding the intricate relationships between environmental change, power dynamics and bordering. As ecological issues are deeply embedded in political, economic, and social contexts, casting an EJ and systemic lens can reveal how environmental violence serves to reinforce existing power structures. Such a perspective highlights that the exploitation of natural resources is not merely

an environmental concern but also a mechanism through which marginalised communities are controlled and oppressed. For instance, when land and water resources are degraded or commodified, affected communities may lose not only their livelihoods but also their agency and capacity for resistance. Ultimately, we need to reimagine a more integrated understanding of justice, characterised by the interdependencies between human and non-human entities, to better understand how ecological harm is intertwined with social oppression.

The Aegean Islands as Fragile Ecosystems

The Aegean hotspot islands, Samos, Lesvos, Chios, Leros and Kos, (Figure 1) exemplify delicate ecosystems that are further complicated by their socio-political and economic vulnerabilities.

These islands face multifaceted challenges, from environmental degradation to socio-economic instability. Papadakis and Kyvelou (2017) highlight the social vulnerabilities inherent to these islands, characterised by high unemployment rates and an overreliance on tourism, a sector that is often erratic and subject to seasonal fluctuations. This economic fragility is exacerbated by significant youth migration, as younger residents leave for urban centres, leading to an ageing population and a depletion of local talent. The weakening of social networks under these economic strains undermines community resilience and solidarity, emphasising the urgent need for integrated territorial development strategies that address these pressing issues (Papadakis and Kyvelou 2017).

Figure 1. Map showing the five Aegean islands designated as refugee hotspots. Source: authors.

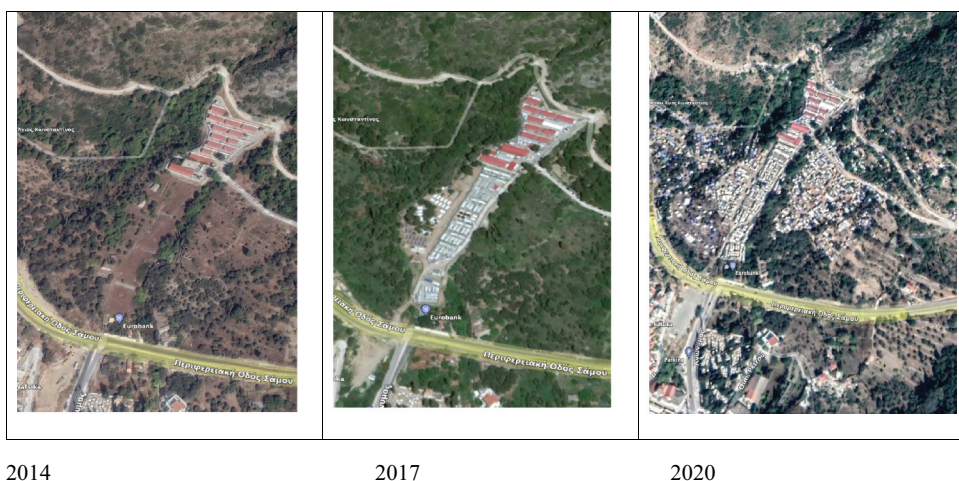2014   2017   2020

Figure 2. Aerial image of Samos RIC in 2014, 2017, and later in 2020, showing the growth of the RIC and the surrounding makeshift housing called 'the jungle'. Source: Google earth Pro.

The environmental challenges are equally pronounced. The geographic fragmentation of the Aegean islands, which complicates resource management and coordinated planning efforts (Theodora 2019). Increased urbanisation and tourism exert further pressure on local ecosystems, threatening their sustainability. Moreover, the refugee crisis has added another layer of complexity to the socio-economic framework of these islands. The influx of refugees has strained local resources, leading to tensions within communities already grappling with economic challenges (Tsartas et al. 2020). The many agencies that are involved in refugee management also pose pressure to existing infrastructure and environmental resources. Franck (2018) presents a critical perspective on how the refugee crisis intersects with neoliberal governance, suggesting that the commodification of migration has transformed human suffering into economic assets. This exploitation, described as a form of 'disaster capitalism', highlights the precarious position of the islands as they navigate the dual pressures of managing environmental resources and responding to socio-political crises. Franck illustrates how the vitality and misery of human existence are exploited within a 'predatory bio-economy'.

The environmental pressures are further exacerbated by climate change (Kizos, Spilanis, and Mehmood 2009). Rising sea levels and increasing temperatures threaten water availability, agricultural productivity, and biodiversity on the islands. Water scarcity is an important issue (Gikas and Tchobanoglous 2009); the recent water crisis (Symons 2024), underscores the inadequacies of existing infrastructure, which has been unable to cope with the combined effects of prolonged drought, extreme heat, and insufficient desalination capabilities. Moreover the vulnerability of

these islands is further heightened by natural disasters, such as the earth-quake that struck near Samos in October 2020 (BBC News 2020). This event caused loss of life and property damage and underscores the region's seismic risks. Earthquakes can devastate infrastructure, disrupt local economies, displace populations, and thus deepen existing vulner-abilities. Such compounded crises not only jeopardise ecological balance but also amplify existing socio-economic vulnerabilities, making recovery even more difficult in an already precarious environment. In summary, the Aegean hotspot islands represent fragile natural ecosystems inter-twined with equally fragile social, political, and economic fabrics. Given these circumstances, the implementation of the hotspot approach on these islands adds extra pressure.

The Evolution of the Hotspot Approach in the Aegean

Historically, the Aegean islands have served as key sites for transnational encounters due to ongoing migration across the Mediterranean. In the early 2010s, Greece experienced a steady rise in migrant arrivals, peaking dramati-cally in the summer of 2015, when over a million people fleeing conflict and persecution entered the EU through Greece, which was termed a 'crisis' and prompted emergency policies to manage the influx.

Before 2015, migrants arriving by sea were typically transported to the mainland for asylum processing. However, as numbers surged, many were left waiting on the islands, often receiving assistance from local residents. In 2015, up to 6,000 people arrived on individual islands daily, overwhelming local infrastructure and leading to chaotic scenes described by interviewees. On most islands, the number of migrating people exceeded the local population. The response from international agencies and the EU governments focused primar-ily on security and controlling migration flows rather than addressing the root causes of displacement. As response was also slow, civil society groups stepped in to fill the gaps in emergency care, providing transportation, food, clothing, and medical aid (Rozakou 2017). Amidst growing numbers of people transiting through Greece into Europe, the EU implemented the 'hotspot approach', designating the five Aegean islands as processing centres for migrants (Bousiou and Papada 2020). Launched in 2015, this approach aimed to manage migration more effectively but ultimately restricted migrants' movements, for-cing them to await asylum decisions on the islands. Reception and Identification Centres (RICs) were established to accommodate asylum seekers, but evolved into spaces of containment (Tazzioli and Garelli 2020; Vradis 2019). Seeking to better understand how the hotspot approach impacted the environmental and social fabric of the inlands, the research adopted a participatory methodology that included the voices of diverse stakeholders.

Methodology

The research involved the construction of a timeline from the summer of 2015 to 2022, a period marked by a significant influx of migrants to the Greek islands. The timeline was designed as a digital archive, employing a participatory approach to capture multiple voices and document the evolution of securitisation and care practices, alongside the social and environmental impacts of these developments. Collaborating with non-profit organisations that provide essential services to migrant communities, we selected partners based on their operational longevity and holistic understanding of the local context. Organisations such as Zaporeak in Lesvos, Refugee Biryani and Bananas in Chios, and Samos Volunteers in Samos served as critical entry points to engage various stakeholders, including asylum seekers, local solidarity groups, residents, and government officials.

As the research was undertaken during the COVID-19 pandemic, the timeline construction required flexibility and adaptability. Regular online meetings facilitated the sharing of experiences and the establishment of a shared research framework. By incorporating networking as a method for gathering experiential knowledge, we grounded our approach in participatory action research principles (Bergold and Thomas 2012), involving both local and international partners throughout the research phases. As we constructed the timeline, it became a valuable tool for identifying and evaluating dimensions of environmental justice: distribution, recognition, and participation. Under distribution, participants emphasised issues related to the provision of housing, food, and other necessities. These discussions revealed the disparities in access to essential services in communities already struggling with resource scarcity. Moreover, waste was also identified as a key entry point to analyse how its generation changed over time, and how it impacted existing vulnerabilities in host territories.

To identify procedural injustices we evaluated who could participate in decision making, and who was misrecognised or malrecognised within these contexts. The discursive mechanisms that dehumanise and justify certain actions serves as a significant indicator of misrecognition, highlighting how certain actors are framed as burdens rather than individuals with rights and dignity. As Walker (2012, 61) discusses in his seminal work on environmental justice, procedural justice is often evidenced through qualitative data, narrative accounts and observations, as these forms of data help researchers gain 'a view of the barriers and inequalities involved in accessing information, in resourcing involvement or having influence needs to draw on "thicker", more multidimensional accounts'. Bearing this in mind, our research relied on considering the experiences recounted by migrants, solidarians, and humanitarians living and working on the hotspot islands. We draw particular attention to local civil society groups and other actors, outside of formal care

channels, who are often overlooked in policy and academic circles, but are an essential part of hosting asylum seekers. We assess the meaningful involvement of these 'marginalised groups' in decisions making processes and actions that affect quality of life, capabilities, and self-determination. The interactive digital timeline enabled us to document 143 projects and organisations, 137 significant events, and qualitative insights from 20 humanitarian organisations working on the islands.

We identify five phases in the history of the hotspot approach: (1) Pre 2015; (2) 2015 to 2016, characterised by increased number of border-crossers and intense civil society care response; (3) 2016 to 2019, which saw the tightening of EU borders and the consolidation of the hotspot approach; (4) 2019 to 2022, which saw the institutionalisation of securitisation; and (5) Post 2022, which is marked by the total securitisation of migrant reception with the construction of Closed-Control Access Centres with prison-like detention facilities. The process of constructing the timeline allowed researchers to identify patterns and themes, ultimately illustrating the correlations between policies, events, and socio-environmental impacts. In summary, the completed timeline serves not only as a chronological narrative of the evolving situation on the Aegean islands but also as a critical tool for analysing dimensions of justice related to distribution, recognition, and participation.

Distributional and Procedural Injustices on the Hotspot Islands

The Trajectory of Housing and Basic Services

The Greek government's partnership with the European Commission led to the establishment of various forms of migrant accommodation, transitioning from ad hoc camps to Reception and Identification Centres (RICs) and, ultimately, to Closed Controlled Access Centres (CCACs). Initially, small-scale migrant facilities and community-led initiatives utilised existing structures, allowing for more sustainable interactions with local systems. However, as the government shifted to large-scale formal camps, this waned. Instead of enhancing existing facilities, investments were diverted to new constructions that often disrupted local ecosystems and strained the limited resources. The camps that evolved placed immense pressure on the infrastructure of small towns. Moreover, the use of investments was diverted from repairing and enhancing the islands' built environment to extracting virgin land.

The pressure on local infrastructure increased, with significant land taken from agricultural use and repurposed for migrant housing, leading to a loss of biodiversity and agricultural production. In this transition, and with each iteration in migrant housing, the research findings demonstrate that the living conditions did not necessarily improve and, in many cases, deteriorated. The establishment of the Moria Refugee Camp in 2013 is a stark example of this

trend. Initially designed for 1,200, it expanded to accommodate over 20,000 people, creating severe overcrowding that compromised basic needs such as food, water, and sanitation (Gordon and Larsen 2021). Similar situations unfolded on the other islands, where they experienced overwhelming numbers of migrants, resulting in environmental degradation. These conditions not only reflected environmental injustices but also supported the government's securitisation narrative, framing the influx of migrants as a crisis that required strict control measures.

The recalibration of service distribution through the construction of RICs further entrenched these dynamics. Although mandated to provide essential services, many authorities failed to meet these obligations, leaving gaps filled by NGOs that were often not allowed to operate within the RICs. Given the overcrowding and lack of adequate services in the RICs, many migrants had no option but to settle in informal settlements, known as 'jungles', encroaching on agricultural land and exacerbating ecological degradation (see Figure 2). The loss of olive groves and agricultural land not only diminished local food production but also symbolised the broader environmental costs of the migrant management strategy.

Despite EU funding intended to improve conditions, the RICs perpetuated neglect and scarcity, with residents often queuing for limited food and water supplies. These prison-like conditions aligned with the government's control strategies. The fire at Moria Camp in 2020, in protest of the inadequate living conditions, impacted the people and natural ecosystems alike. This catastrophe drew attention to the dire circumstances in which migrants lived; however, instead of addressing the underlying humanitarian and environmental issues, the response focused on tightening security within camps, which was seen as necessary maintain order amidst perceived chaos.

The introduction of Closed Controlled Access Centres (CCACs) marks a significant shift in the hotspot approach to migration management. These centres are strategically located out of sight, away from urban areas and in environmentally stressed sites, such as the largest dump site in Lesvos, or the rocky, barren and water scarce area in the Northeast part of Chios. Tazzioli and Garelli (2020) noted that hotspot governance contains migrants within and beyond the detention facilities, 'by disrupting, decelerating and diverting migrants' autonomous movements and by hampering migrants' presence in certain spaces'. We see that the deliberate placement of migrants not only isolates them from the social and economic life of the islands, but also associates them, symbolically and spatially, with undesirable land and all that is 'unwanted'.

The Zervou CCAC in Samos, which has been presented as a model for refugee reception, has faced extensive criticism for its stringent security measures and inhumane treatment of its residents (IRC 2022; Manek 2025; Molnar 2021; Oxfam 2022; RSA 2023). Manek, Popp, and Bucknor (2025)

demonstrate how the Samos CCAC is characterised by police brutality and unsafety. Additionally, Allde (2025) has shown how the detention of asylum seekers in the Samos CCAC distances migrants in a way that serves to silence their experience of illegal push-backs, invisibilising and delegitimising them. Dehumanisation is not only present in the practices of the CCAC but also in the disconnection from the natural environment surrounding the structure. The site is devoid of trees and shade, leaving residents with little respite from the harsh sun outside the tents and containers. Camp dwellers rely heavily on air conditioning for comfort, and in summer months this means they stay mainly indoors. Moreover, the absence of green spaces and recreational areas for children constitutes a profound form of environmental injustice, depriving them of opportunities for play and social interaction crucial for their development (Peterie 2018; Vaghri, Tessier, and Whalen 2019). Such conditions serve as a stark example of how the separation from the natural environment contributes to the impoverishment of individual and collective life, with important negative ramifications for mental and physical health.

The construction of CCACs demands extensive land clearing, resulting in the destruction of trees and grasslands, as well as the pouring of tons of concrete to erect built structures. Given their remote locations and their large scale, these centres require substantial infrastructure investments to connect them to essential services such as water, electricity, and sewage systems. This infrastructure development further exacerbates environmental degradation, negatively impacting not only the land of the CCACs but also the surrounding areas where these services are implemented. Moreover, the construction of roads and the increased transportation necessary for moving people and goods to and from these centres contribute to a greater carbon footprint. As roads are built or expanded, local ecosystems face additional pressure. The cumulative effect of these developments results in a cycle of degradation that not only affects the immediate environment of the CCACs but also extends to the larger ecological landscape of the regions in which they are situated.

These small islands, having already experienced significant challenges since 2015, were subjected to further injustices with the change from temporary and repurposed migrant accommodation to newly constructed permanent detention centres. While the architecture of the CCACs suggests permanence, their operation is still based on a temporary logic, which we explain in more detail in the section below on how food and other services are distributed. The contradiction between the temporary and permanent logics of the hotspot approach perpetuates a cycle of neglect, dehumanisation and ecological exploitation that (re)produces injustices and intractable problems over time.

By 2022, CCACs operated on all five Aegean hotspot islands, leading to the closure of alternative accommodation projects. Despite reports indicating that these centres operated at only 20% capacity in their first years of operation, by

December 2023, four of the five CCACs contained more people than their capacity ('Reception and Identification Procedure' 2023). Human rights abuses continued to be documented (Ibid), while the environmental impact remained largely ignored in policy discussions. In summary, the evolving policies and infrastructure responses to the migrant crisis on these islands have not only failed to protect the rights and dignity of migrants but have also inflicted significant harm on fragile ecosystems. The intertwining of environmental degradation with control strategies underscores a dual crisis of human rights and environmental sustainability, with CCACs serving as sites of both ecological destruction and heightened state control. The CCACs and the people within them represent sacrificed spaces and populations. Peripheralised and maintained outside existing island systems, the CCACs exacerbate the creation and accumulation of waste, discussed in the next section.

The Provision of Food and Generation of Waste

The increasingly securitised camp structures intensified food scarcity and the production of waste. With every iteration of migrant accommodation, camp dwellers' movements were further restricted, impacting their agency and autonomy. Research informants highlighted how they were able to better meet their own needs whilst living in the 'jungles' as they had access to local markets and could cook for themselves. In contrast, daily cooking in the formal camps is prohibited. Many interviewees corroborated that food provisions in the RICs often failed to reach all who needed it due to limited resources. Moreover, they highlighted that many camp dwellers could not eat the food provided because it violated their religious beliefs. Additionally, because of the remoteness of some of the RICs, as well as restrictions on movement, procuring food outside the RICs was difficult and expensive for migrants, thus reducing them to passive agents receiving food.

Moreover, informants noted how the experience of receiving food was dehumanising as many had to bear long queues held in cage-like structures. As an interviewee who experienced life in the RICs said, 'We have time for little else but queuing. It is exhausting, demoralising and frustrating. Food can run out without everyone receiving their share and fights can easily break out in such a tense environment (Interview March 2021)'.

Given the experience of food scarcity in the RICs, some NGOs stepped in to fill the gap, delivering meals in disposable containers prepared off site. This added to the generation of waste. Despite EU investment in the CCACs, food needs still went unmet and NGOs continued to provide food. Uncertain if their operations would be unexpectedly closed down by the Greek government, and prohibited from cooking within the CCACs, NGOs were forced to

continue adopting an emergency logic. Rather than devising more sustainable solutions, they continued to deliver food in disposable containers.

The formal camps themselves provided food through a temporary logic as each meal is delivered in ready-made packages. This system generates a staggering amount of waste, accentuating environmental concerns. One interviewee explains the scale of the problem in Samos: 'Every meal comes in a disposable container. With 4,000 people in the camp, that's 12,000 plastic containers on a daily basis, and that is not counting disposable water bottles, heading straight to the island's dumpsites, with no recycling in place (Interview March 2021)'. Such waste takes up land and pollutes the islands. Through these food and waste practices, we observe how the hotspot approach strategically employs both permanent and temporary modalities to exert control as needed. We argue that this deployment of paradoxical logics not only generates waste but also produces wasted spaces, effectively transforming the islands into sacrifice zones.

The Participation of Solidarians and Local Organisations

As the provision of accommodation and basic services evolved, so too did the participation of actors in care provision. At the beginning of the so-called 'migration crisis' in 2015–2016, hundreds of independent collectives and local grassroots actors, as well as formal and informal local and international non-profit organisations, mobilised or were created to provide care for, and often with, migrants. The lack of government control at the time allowed these diverse stakeholders, including asylum seekers, to operate freely (Papataxiarchis 2016a). Solidarians worked sometimes in concert with and sometimes in opposition to each other, local people, and the state (Rozakou 2017). When the state of emergency was declared on the Aegean islands, the EU released humanitarian funds that were distributed through set contracts with listed international NGOs and a selected number of national NGOs. Over time, with the institutionalisation of the hotspot approach, and the Greek government imposing control measures on humanitarian services, community organisations and migrant-led initiatives changed and often closed. Thus, international NGOs took over care provision. Local initiatives were sidelined such that migrants and local groups were less able to participate in the operations and services.

The Greek and EU governments implemented increasingly restrictive and securitised policies towards migrants and criminalising policies towards grassroots care providers. These providers were also received negatively by residents with anti-immigrant sentiments. While many care organisations provided opportunities for migrants to be involved, the bureaucratisation and professionalisation of care provision forced these organisations to change their practices or close entirely. As migrant accommodation shifted from open

camps and 'jungles' to controlled and securitised facilities, asylum seekers lost their independence. Simultaneously, many care organisations were excluded from these spaces. Given the inadequate conditions, this represents a sacrifice of both the provision of care for migrants in detention facilities as well as the participation of local and grassroots initiatives. Without regular access to care practices, such as education, food provision, childcare, and legal assistance, detained migrants were denied agency, community, and other important life-sustaining practices.

Following the implementation of RICs, Greek authorities increased the criminalisation of humanitarian work and sea rescue. They targeted people providing care to border-crossers, including the handful of organisations monitoring human rights violations, framing it as a matter of national security. Dozens of grassroots humanitarian workers and solidarians were charged with 'human trafficking' (2023). A directly affected interviewee noted that the cases brought against humanitarian workers by the Greek government were intended to intimidate them and incur ever-growing legal fees, with little evidence to substantiate the claims (Ibid). Accounts of repeatedly delayed court cases due to procedural mistakes by the Greek prosecution have suggested a miscarriage of justice towards humanitarian actors (Kokkinidis 2023). Our research found the climate of fear instigated by the legal targeting of humanitarian work led to the closure of many organisations, while others transitioned to providing different forms of care. Moreover, the few that continued to operate were required to register based on new regulations, an expensive process involving complex bureaucratic processes that few independent NGOs had the resources to manage. Consequently, registered large NGOs and governmental organisations gained greater control, dominating migrant reception processes, while local solidarians were distanced from migrants and denied the ability to participate in decision-making processes as well as actions that impacted their islands.

The Changes in Local communities' Realities

The local communities' experiences are diverse as individuals hold varying perspectives shaped by their backgrounds, beliefs and interaction with migrants. Although, we are mindful that residents were differently impacted, the research found that generally, many faced significant limitations in influencing decisions that affected their lives, as their voices were largely excluded from policy discussions. Vallianatou (2022) notes that the lack of local consent for new camps exemplifies a broader failure to engage both asylum seekers and host communities effectively. The establishment and expansion of migrant reception infrastructure, coupled with sluggish asylum processes, created substantial socio-economic pressures on host communities.

The experience of scarcity and insecurity significantly affected the local economy. After 2015, there was a noticeable decline in economic activities and productivity due to limitations on tourism and agricultural space (Cederquist 2019). Cederquist argued that 'there was no real (financial) support from the Greek government nor from the EU for the people on the island to cope with the situation' (2019, 518). Nevertheless management policies had the financial capacity to deploy military strategies to further securitise the island, with NATO and European ships patrolling sea crossings. Frontex, the European Union's border agency, saw its budget grow from €142 million in 2015 to €754 million in 2022 (Perkowski, Stierl, and Burridge 2023). Although local residents did not feel the benefits and experienced economic decline, some have highlighted how the flow of money to the islands have benefitted a few. With the establishment of the CCACs, hundreds of local island residents were given jobs as security officers. This skewed the local labour market, as local businesses found it difficult to find workers, though the newly built CCACs were under-occupied and over-staffed.

While demonstrating significant resilience, Vallianatou (2022) found that local inhabitants expressed feeling neglected by both national governments and international organisations, and overwhelmed by the ongoing situation. Concerns about the islands becoming permanent confinement zones for asylum seekers is seen to pose severe consequences for the development of host communities (Ibid). Anti-immigrant sentiments are fuelled by a lack of recognition and support for local insights and needs. Siegel (2022) highlights a local islander's testimony that reflects a prevailing attitude: 'We live here, they live there, they have their cages; we do not need to be confronted with their misery every day'. This statement underscores a troubling separation between locals and migrants, which Siegel argues is an unrealistic perspective, as their lives are increasingly interconnected by shared challenges (Ibid).

The experience of prolonged living alongside a contained, 'unwanted', and impoverished population, coupled with a radical shift in the national narrative on migration after 2019, where people seeking asylum were portrayed as enemies of the nation (Kouniaki 2021), facilitated the rise of extreme right-wing practices. The far-right in Greece, notably the criminally-indicted and now disbanded Golden Dawn party, has a history of escalatory physical violence which is specific to the context of Greece (Bampilis 2017). Following 2019, instead of pulling boats in distress to shore, some locals prevented them from landing safely, isolating and assaulting those who wanted to help migrants. Hostility against humanitarian and solidarity workers, migrants, and journalists grew from tension to physical violence (RSA 2020). These events also nuance our understanding of the actors involved on the islands across time. While some people acted in solidarity with migrants, others expressed resentment and hatred for migrants and those associated

with migrant care initiatives, attributing environmental and social degradation to them. We can interpret the animosity fomented in this context not only as a mechanism to divide and conquer, but also a cycle that self perpetuates, making it increasingly difficult for various actors on the islands to have a united front to advocate for their collective rights and wellbeing. We see how in this context, the earmarking of these islands to contain displacement fuels internal dynamics that can weaken the social fabric and in turn contribute to (re)creating sacrifice zones.

Conclusion

Through the case study of the Aegean islands, we demonstrate how fragile ecosystems are exploited to manage displacement, transforming these areas into sacrifice zones characterised by reduced agency of both migrants and locals. The EU-led hotspot approach has entrenched this dynamic, reducing social and ecological systems to mere objects of state control, often under the guise of protection and care. This reinforces dependence on external aid and control, while a colonial mindset continues to exploit both tangible and intangible assets of the islands, perpetuating injustices against human and ecological entities alike.

This paper shows how the environment and scarcity are weaponised to justify marginalising migration policies and practices. This process targets already peripheralised territories, maintaining them as spaces of least resistance through long-term destructive actions which increase precarity. The sacrifice zones (re)create vulnerabilities, enabling continued control as the injustices inflicted on humans and more-than-humans are intertwined, creating a vicious cycle of exploitation. The hotspot logic rooted in temporary solutions has paradoxically led to the entrenchment of large-scale migrant detention infrastructures which negatively impact sustainability and justice. NGOs and civil society groups, too, are compelled to adopt emergency responses rather than sustainable practices because of the bureaucracy imposed by the institutional approach. This reality generates adverse effects on the physical and mental health of migrants and undermines the fragile social, economic, and ecological systems of the islands – compounding long-term challenges that reverberate across geographies.

Integrating environmental/ecological perspectives into migration studies not only enriches theoretical frameworks but also informs empirical research, contributing to a comprehensive understanding of the multifaceted dynamics at play in contemporary migration and bordering. In this paper, the EJ framework helps clarify how migration policies and practices establish and perpetuate sacrifice zones where migrants, locals and 'nature' are expendable. Systemic violence embedded in migration policies and practices perpetuates environmental   degradation,   reinforcing   existing   power   dynamics.

Environmental violence thus becomes a biopolitical mechanism, producing controllable subjects.

Expanding the critical EJ framework within migration studies invites deeper engagement with biopolitics. It reveals that environmental degradation is not merely a backdrop to migration but a key factor shaping biopolitical strategies. Understanding the psychological and cultural ramifications of environmental loss is crucial, as it affects identity, social dynamics, and the very fabric of community life. This degradation often unfolds gradually, through the erosion of ecological systems and habitats, rather than through overt violence.

To advance this discourse, further research is needed to uncover the mechanisms that (re)produce sacrifice zones. Comparative studies of other such zones in migration management will enhance our understanding of how vulnerabilities are created and sustained, revealing the pervasive influence of colonialist mindsets in policy frameworks. Finally, it is imperative to shift away from managerial approaches currently dominant in migration management (Bousiou and Papada 2020). Emphasising a holistic and decolonising perspective that recognises the interconnectedness of people and ecosystems is essential for fostering more just and sustainable futures. In the case of the Aegean, key lessons can be drawn from early practices for hosting migrants that were more environmentally friendly – such as housing that contributes to the rehabilitation of dilapidated existing structures in built up areas or food provision that is nutritious, culturally appropriate and locally sourced. More research is needed to analyse, document, and make visible these 'good' practices. Casting an EJ lens while taking stock of such practices can inform policies that promote equitable environmental practices and address historical wrongdoings.

Note

1. We draw on the outcomes of two action-research projects undertaken between 2021 and 2022 that focused on the evolution and impacts of migration management practices institutionalised in the Aegean. These projects include 1) *'Understanding the impact of the "hotspot approach" to tackle the refugee crisis on fragile island systems'* funded by the UCL Global Engagement Fund; and 2)*'Linking asylum hotspots; exchanging strategies towards dignified refugee reception and sustainable island systems'* funded by the UCL Knowledge Exchange and Innovation Grant. The projects are led by the Bartlett Development Planning unit at UCL, in collaboration with the University of Deusto and five NGOs in Greece, including Samos Volunteers, Zaporeak, Echo100 Plus, Glocal Roots and Refugee Biryani and Bananas.

Acknowledgements

Disclosure Statement

Funding

References

Agamben, G. 1998. *Sovereign power and bare life. Homo sacer 1.* Stanford, Calif: Stanford University Press.

Agier, M. 2011. *Managing the undesirables: refugee camps and humanitarian government.* Cambridge: Polity Press.

Alcalde, X. 2016. Why the refugee crisis is not a refugee crisis. *Peace in Progress Magazine*, November. https://www.icip.cat/perlapau/en/article/why-the-refugee-crisis-is-not-a-refugee-crisis/.

Allde, E. 2025. Spectralising borders: How women in the Samos Closed controlled access centre are kept distant from the European rights regime. Ssrn scholarly paper. Rochester, NY: Social Science Research Network. doi: 10.2139/ssrn.5101060.

Aradau, C., and M. Tazzioli. 2020. Biopolitics multiple: Migration, extraction, subtraction. *Millennium Journal of International Studies* 48 (2):198–220. doi: 10.1177/0305829819889139.

Araghi, F. 2009. Accumulation by displacement: Global enclosures, food crisis, and the ecological contradictions of capitalism. *Review (Fernand Braudel Center)* 32 (1):113–46.

Athanasiou, A., and G. Tsimouris. 2013. Mapping the biopolitics of borders: De–grounding bodies and places. *The Greek Review of Social Research*, no. Special Issue Migration, Gender and Precarious Subjectivities in the era of Crisis 140 (140). doi: 10.12681/grsr.54.

Balsari, S., C. Dresser, and J. Leaning. 2020. Climate change, migration, and civil strife. *Current Environmental Health Reports* 7 (4):404–14. doi: 10.1007/s40572-020-00291-4.

Bampilis, T. 2017. Far-right extremism in the city of Athens during the Greek crisis. In *Critical times in Greece: Anthropological engagements with the crisis*, ed. D. Dalakoglou and G. Agelopoulos, 57–75. London and New York: Routledge.

BBC News. 2020. 'Earthquake hits Greece and Turkey, bringing deaths and floods'. *BBC News.* Europe, October, sec. 30. https://www.bbc.com/news/world-europe-54749509.

Bergold, J., and S. Thomas. 2012. Participatory research methods: A methodological approach in motion. *Historical Social Research/Historische Sozialforschung* 37 (4 (142)):191–222.

Betts, A. 2009. *Forced migration and global politics*, 1st ed. Chichester, West Sussex, United Kingdom: Wiley. doi: 10.1002/9781444315868.

Betts, A., M. F. Stierna, N. Omata, and O. Sterck. 2023. Refugees welcome? Inter-group interaction and host community attitude formation. *World Development* 161 (January):106088. doi: 10.1016/j.worlddev.2022.106088.

Biehl, J., and T. Eskerod. 2013. *Vita: Life in a zone of social abandonment*, 1st ed. Berkeley, California, United States: University of California Press.

Bird, G., and D. Schmid. 2023. Humanitarianism and the "migration fix": On the implication of NGOs in racial capitalism and the management of relative surplus populations. *Geopolitics* 28 (3):1235–61. doi: 10.1080/14650045.2021.2008361.

Bousiou, A. 2020. From humanitarian crisis management to prison island: Implementing the European asylum regime at the border island of Lesvos 2015–2017. *Journal of Balkan and Near Eastern Studies* 22 (3):431–47. doi: 10.1080/19448953.2020.1752560.

Bousiou, A., and A. Kontis. 2015. Externalization of the EU asylum policy under the light of the Arab Spring: How did South-European countries recalibrate after the uprisings? In *Discursive governance in politics, policy, and the public sphere*, ed. U. Korkut, K. Mahendran, G. Bucken-Knapp, and R. H. Cox, pp. 95–108. NY: Palgrave Macmillan US. doi: 10.1057/9781137495785_7.

Bousiou, A., and E. Papada. 2020. Introducing the EC hotspot approach: A framing analysis of EU's most authoritative crisis policy response. *International Migration* 58 (6):139–52. doi: 10.1111/imig.12689.

Bryant, B., and P. Mohai. 2019. *Race and the incidence of environmental hazards: a time for discourse*. NY: Routledge. doi: 10.4324/9780429303661.

Casas-Cortes, M., S. Cobarrubias, and J. Pickles. 2015. Riding routes and itinerant borders: Autonomy of migration and border externalization. *Antipode* 47 (4):894–914. doi: 10.1111/anti.12148.

Cederquist, A. 2019. Civil society between void and action – the case of refugee support on Lesvos. *Local Environment* 24 (6):509–24. doi: 10.1080/13549839.2019.1588867.

Dalal, A. 2020. The refugee camp as urban housing. *Housing Studies* 37 (2):189–211. doi: 10.1080/02673037.2020.1782850.

Davitti, D. 2018. Biopolitical borders and the state of exception in the European migration "crisis". *The European Journal of International Law* 29 (4):1173–96. doi: 10.1093/ejil/chy065.

Dines, N., N. Montagna, and V. Ruggiero. 2015. Thinking lampedusa: Border construction, the spectacle of bare life and the productivity of migrants. *Ethnic and Racial Studies* 38 (3):430–45. doi: 10.1080/01419870.2014.936892.

Foucault, M. 1978. *The history of sexuality, volume 1: an introduction*, Robert Hurley, ed. 1st American ed. NY: Pantheon Books.

France 24. 2023. Greek court rejects charges against aid workers who helped migrants in Lesbos. *France* 24. January 13. https://www.france24.com/en/europe/20230113-greek-court-rejects-charges-against-aid-workers-who-helped-migrants-in-lesbos.

Franck, A. K. 2018. The Lesvos refugee crisis as disaster capitalism. *Peace Review* 30 (2):199–205. doi: 10.1080/10402659.2018.1458951.

Fraser, N. 2000. Rethinking recognition. *New Left Review* 3 (May):107–20.

Ghosh, R. C., and C. Orchiston. 2022. A systematic review of climate migration research: Gaps in existing literature. *SN Social Sciences* 2 (5):47. doi: 10.1007/s43545-022-00341-8.

Gikas, P., and G. Tchobanoglous. 2009. Sustainable use of water in the Aegean Islands. *Journal of Environmental Management* 90 (8):2601–11. doi: 10.1016/j.jenvman.2009.01.020.

Gonzalez, C. G. 2020. Racial capitalism, climate justice, and climate displacement. Ssrn scholarly paper. Rochester, NY: Social Science Research Network. https://papers.ssrn.com/abstract=3626490.

Gordon, E., and H. K. Larsen. 2021. The violent inaction of the state and the camp as site of struggle: The perspectives of humanitarian actors in Moria camp, Lesvos. *European Journal of International Security* 6 (4):418–38. doi: 10.1017/eis.2021.9.

Guarnieri, V. 2004. Food aid and livelihoods: Challenges and opportunities in complex emergencies. *Forced Migration Review* 20:15–18.

IRC. 2022. One year since Greece opened new "prison-like" refugee camps, NGOs call for a more humane approach. International Rescue Committee, September 20. https://www.rescue.org/eu/statement/one-year-greece-opened-new-prison-refugee-camps-ngos-call-more-humane-approach.

James, M. 2019. Care and cruelty in Chios: The "refugee crisis" and the limits of Europe. *Ethnic and Racial Studies* 42 (14):2470–89. doi: 10.1080/01419870.2019.1617425.

Juskus, R. 2023. Sacrifice zones: A genealogy and analysis of an environmental justice concept. *Environmental Humanities* 15 (1):3–24. doi: 10.1215/22011919-10216129.

Kizos, T., I. Spilanis, and A. Mehmood. 2009. Climate change vulnerability: Planning challenges for small islands. In *Planning for climate change: Strategies for mitigation and adaptation for spatial planners*, ed. S. Davoudi, J. Crawford, and A. Mehmood, 94–106. London: Earthscan.

Kokkinidis, T. 2023. Syrian refugee who inspired Netflix's "Swimmers" on trial in Greece. *Greekreporter Com* (Blog). January 12. https://greekreporter.com/2023/01/12/syrian-refugee-netflix-swimmers-trial-greece/.

Kolliniati, M. 2024. *Interpreting human rights: narratives from asylum centers in Greece and philosophical values*. London, United Kingdom: Taylor & Francis.

Kouniaki, E. 2021. Weaponizing refugees at the land borders of Evros: Constructing the other through fear and danger. *Border criminologies, University of Oxford* (Blog), June 3. https://blogs.law.ox.ac.uk/research-subject-groups/centre-criminology/centreborder-criminologies/blog/2021/06/weaponizing.

Lehne, J., W. Blyth, G. Lahn, M. Bazilian, and O. Grafham. 2016. Energy services for refugees and displaced people. *Energy Strategy Reviews* 13–14 (November):134–46. doi: 10.1016/j.esr.2016.08.008.

Léonard, S., and C. Kaunert. 2019. *Refugees, security and the European Union*. London, United Kingdom: Routledge. doi: 10.4324/9780429025976.

Lorimer, J., and T. Hodgetts. 2024. *More-than-human*. London: Routledge. doi: 10.4324/9781315164304.

Manek, J. 2025. No camp is a "good camp": The closed controlled access centre on Samos as a torturing environment and necropolitical space of uncare. *Antipode* 57 (1):324–49. doi: 10.1111/anti.13115.

Manek, J., S. Popp, and A. O. Bucknor. 2025. Between securitisation and unsafety: A scaled analysis of policing and structural vulnerabilisation on the EU Hotspot Samos. *International Journal for Crime, Justice & Social Democracy* 14 (1):98–116. doi: 10.5204/ijcjsd.3815.

Martin, A. 2005. Environmental conflict between refugee and host communities. *Journal of Peace Research* 42 (3):329–46. doi: 10.1177/0022343305052015.

Martini, L. S., and T. Megerisi. 2023. Road to nowhere: Why Europe's border externalisation is a dead end. *ECFR* (Blog). December 14. https://ecfr.eu/publication/road-to-nowhere-why-europes-border-externalisation-is-a-dead-end/.

Mayblin, L. 2017. *Asylum after empire: colonial legacies in the politics of asylum seeking*. Kilombo: International Relations and Colonial Questions. London New York: Rowman & Littlefield International.

Mayblin, L., and J. Turner. 2020. *Migration studies and colonialism*, 1st ed. Cambridge, United Kingdom: Polity Press.

Mbembe, A. 2003. Necropolitics. In *Public Culture*, vol. 15, pp. 11–40. Durham, NC, USA: Duke University Press. doi: 10.1215/08992363-15-1-11.

Minca, C. 2015. Geographies of the camp. *Political Geography*, Special Issue: Historical Geographies of Internationalism, 49 (November):74–83. doi: 10.1016/j.polgeo.2014.12.005.

Minca, C., A. Rijke, P. Pallister-Wilkins, M. Tazzioli, D. Vigneswaran, H. van Houtum, and A. van Uden. 2022. Rethinking the biopolitical: Borders, refugees, mobilities . . .. *Environment & Planning C Politics & Space* 40 (1):3–30. doi: 10.1177/2399654420981389.

Molnar, P. 2021. Inside new refugee camp like a "prison": Greece and other countries prioritize surveillance over human rights. *The Conversation*, September 27. http://theconversation. com/inside-new-refugee-camp-like-a-prison-greece-and-other-countries-prioritize-surveillance-over-human-rights-168354.

Morano-Foadi, S., and M. Malena. 2023. Rethinking access to asylum: Border-shifting, burden-shifting, and externalisation of international protection in the light of the UK-Rwanda arrangement. In *UK Borderscapes*, ed. K. L. Hough and K. L. Louvier, 66–80. London: Routledge. doi: 10.4324/9781003350255-6.

Morris, J. 2024. Governing the displaced: Race and ambivalence in global capitalism. By Ali Bhagat. *Journal of Refugee Studies* feae065 (1):278–80, August. doi: 10.1093/jrs/feae065.

Nixon, R. 2011. *Slow violence and the environmentalism of the poor*. Cambridge, Massachusetts, United States: Harvard University Press. doi: 10.4159/harvard.9780674061194.

Oxfam. 2022. Stories from samos: A collection of testimonies. https://www.oxfam.org/en/ press-releases/new-oxfam-report-uncovers-stories-prison-eu-funded-refugee-center.

Pallister-Wilkins, P. 2022. Whitescapes: A posthumanist political ecology of alpine migrant (im)mobility. *Political Geography* 92 (January):102517. doi: 10.1016/j.polgeo.2021.102517.

Papadakis, N., and S. Kyvelou. 2017. Greek islands in crisis: Social vulnerability and the need for integrated territorial development strategies. *European Quarterly of Political Attitudes and Mentalities* 6 (2):67–88.

Papataxiarchis, E. 2016a. Being "there": At the front line of the "European refugee crisis" - part 1. *Anthropology Today* 32 (2):5–9. doi: 10.1111/1467-8322.12237.

Papataxiarchis, E. 2016b. Being "there": At the front line of the "European refugee crisis" - part 2. *Anthropology Today* 32 (3):3–7. doi: 10.1111/1467-8322.12252.

Papoutsi, A., J. Painter, E. Papada, and A. Vradis. 2019. The EC hotspot approach in Greece: Creating liminal EU territory. *Journal of Ethnic & Migration Studies* 45 (12):2200–12. doi: 10.1080/1369183X.2018.1468351.

Pellow, D. N. 2018. *What is critical environmental justice?* Cambridge, UK: Polity Press.

Pellow, D. N., and R. J. Brulle. 2005. Power, justice, and the environment: Toward critical environmental justice studies. In *Power, Justice, and the Environment: A Critical Appraisal of the Environmental Justice Movement*, ed. D. N. Pellow and R. J. Brulle, 1–19. Cambridge, MA: MIT Press.

Pellow, D. N., and J. Vazin. 2019. The intersection of race, immigration status, and environmental justice. *Sustainability* 11 (14):3942. doi: 10.3390/su11143942.

Perkowski, N., M. Stierl, and A. Burridge. 2023. The evolution of European border governance through crisis: Frontex and the interplay of protracted and acute crisis narratives. *Environment & Planning D, Society & Space* 2637758231152478 (1):110–29, February. doi: 10.1177/02637758231152478.

Peterie, M. 2018. Deprivation, frustration, and trauma: Immigration detention centres as prisons. *Refugee Survey Quarterly* 37 (3):279–306. doi: 10.1093/rsq/hdy008.

Pulido, L. 2017. Geographies of race and ethnicity ii: Environmental racism, racial capitalism and state-sanctioned violence. *Progress in Human Geography* 41 (4):524–33. doi: 10.1177/0309132516646495.

Raeymaekers, T. 2024. Naturalising "black spaces" in the Mediterranean: Towards a political ecology of bordering infrastructures. *Geopolitics* 29 (2):495–519. doi: 10.1080/14650045.2023.2167651.

Rawls, J. 1971. *A theory of justice: original edition.* Cambridge, Massachusetts, United States: Harvard University Press. doi: 10.2307/j.ctvjf9z6v.

'Reception and Identification Procedure'. 2023. European Council on Refugees and Exiles. *Asylum Information Database* (Blog). August 6. https://asylumineurope.org/reports/country/greece/asylum-procedure/access-procedure-and-registration/reception-and-identification-procedure/.

Rosignoli, F. 2022. Environmental justice and climate-induced migration. In *Climate refugees: global, local and critical approaches*, ed. A. Kent and S. Behrman, pp. 301–19. Cambridge: Cambridge University Press. doi: 10.1017/9781108902991.016.

Rozakou, K. 2017. Solidarians in the land of Xenios Zeus: Migrant deportability and the radicalisation of solidarity. In *Critical times in Greece*. London, United Kingdom: Routledge.

RSA. 2020. Timeline of attacks against Solidarity. *Refugee support Aegean* (Blog), March 18. https://rsaegean.org/en/timeline-of-attacks-against-solidarity/.

RSA. 2023. What is happening today in the refugee structures on the Aegean Islands. Greece: Refugee Support Aegean. https://rsaegean.org/en/ccac-aegean-islands-greece/.

Schindel, E. 2016. Bare life at the European borders. Entanglements of technology, society and nature. *Journal of Borderlands Studies* 31 (2):219–34. doi: 10.1080/08865655.2016.1174604.

Schindel, E. 2022. Death by "nature": The European border regime and the spatial production of slow violence. *Environment & Planning C Politics & Space* 40 (2):428–46. doi: 10.1177/2399654419884948.

Schlosberg, D. 2007. *Defining environmental justice: theories, movements, and nature.* Oxford: University Press.

Siegel, D. 2022. The "crises" of Lesbos. *Utrecht Law Review* 17 (4):10–18. doi: 10.36633/ulr.745.

Slingenberg, C. H. 2025. Coerced into subsistence: Deprivation of liberty in the EU reception and identification centres in Greece. *Social & Legal Studies* 9646639251322979 (3):381–401, February. doi: 10.1177/09646639251322979.

Stoler, A. L. 2016. *Duress: imperial durabilities in our times.* Durham, North Carolina, United States: Duke University Press.

Sundberg, J. 2008. "Trash-talk" and the production of quotidian geopolitical boundaries in the USA–Mexico Borderlands. *Social and Cultural Geography* 9 (8):871–90. doi: 10.1080/14649360802441424.

Sundberg, J. 2011. Diabolic caminos in the desert and cat fights on the Río: A posthumanist political ecology of boundary enforcement in the United States–Mexico borderlands. *Annals of the Association of American Geographers* 101 (2):318–36. doi: 10.1080/00045608.2010.538323.

Sundberg, J. 2014. Decolonizing posthumanist geographies. *Cultural Geographies* 21 (1):33–47. doi: 10.1177/1474474013486067.

Symons, A. 2024. Wildfires, extreme heat and low rainfall: Greek islands hit with water crisis. Euronews, July 12. https://www.euronews.com/green/2024/07/12/wildfires-extreme-heat-and-low-rainfall-greek-islands-hit-with-water-crisis.

Tazzioli, M. 2020a. *The making of migration: The biopolitics of mobility at Europe's borders.* London, UK: SAGE.

Tazzioli, M. 2020b. What is left of migrants' spaces?: Transversal alliances and the temporality of solidarity. *Political Anthropological Research on International Social Sciences (PARISS)* 1 (1):137–61. doi: 10.1163/25903276-bja10001.

Tazzioli, M., and G. Garelli. 2016. Beyond detention: Spatial strategies of dispersal and channels of forced transfer. Society and space, November 8. https://www.societyandspace.org/articles/beyond-detention-spatial-strategies-of-dispersal-and-channels-of-forced-transfer.

Tazzioli, M., and G. Garelli. 2020. Containment beyond detention: The hotspot system and disrupted migration movements across Europe. *Environment & Planning D* 38 (6):1009–27. doi: 10.1177/0263775818759335.

Theodora, Y. 2019. Aegean Sea—challenges and dilemmas in management and planning for local development in fragmented insular regions. *Heritage* 2 (3):1762–84. doi: 10.3390/heritage2030108.

Topak, Ö. E. 2014. The biopolitical border in practice: Surveillance and death at the Greece-Turkey borderzones. *Environment & Planning D, Society & Space* 32 (5):815–33. doi: 10.1068/d13031p.

Tsartas, P., A. Kyriakaki, T. Stavrinoudis, G. Despotaki, M. Doumi, E. Sarantakou, and K. Tsilimpokos. 2020. Refugees and tourism: A case study from the islands of Chios and Lesvos, Greece. *Current Issues in Tourism* 23 (11):1311–27. doi: 10.1080/13683500.2019.1632275.

UNHCR. 2024. Global trends. UNHCR UK, June. https://www.unhcr.org/uk/global-trends .

Vaghri, Z., Z. Tessier, and C. Whalen. 2019. Refugee and asylum-seeking children: Interrupted child development and unfulfilled child rights. *Children* 6 (11):120. doi: 10.3390/children6110120.

Vallianatou, A. I. 2022. Lesvos: How EU asylum policy created a refugee prison in paradise. *Chatham House - international affairs think tank* (Blog), July 28. https://www.chathamhouse.org/2022/07/lesvos-how-eu-asylum-policy-created-refugee-prison-paradise.

Vradis, A. 2019. *New borders: hotspots and the European migration regime*, 1st ed. Radical Geography. London: Pluto Press.

Walker, G. 2012. *Environmental justice: concepts, evidence and politics*, 1st ed. Oxford: Routledge. doi: 10.4324/9780203610671.

Whyte, K. 2020. Indigenous environmental justice: Anti-colonial action through kinship. In *Environmental justice: Key issues*, ed. B. Holifield, J. Chakraborty, and G. Walker, 1st ed., 266–78. London: Routledge. doi: 10.4324/9780429029585-23.

Witcher, A. 2021. Greece's discriminatory migrant regime: Volunteers, informal street-level bureaucrats, and moral rationalities. *Journal of Refugee Studies* 34 (2):1540–59. doi: 10.1093/jrs/feaa083.

Young, I. M. 2002. *Inclusion and democracy*. Oxford: Oxford University Press.