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Construing and constructing the South China Sea beyond state-led environmentalism: Vernacularizing geographical, geopolitical and sociotechnical imaginaries of territory

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During the 2010s, the South China Sea (SCS) became a geopolitical flashpoint over the sovereignty of the Paracels and Spratlys. China envisioned its transformation of coral reefs into military bases and island cities as an SCS 'green construction' project. This article analyses how the SCS is discursively construed and practically constructed as maritime national territory, by mobilizing fishing legacies and extending state limits through 'state-led environmentalism' rhetoric. Drawing on ethnographic fieldwork in China, I show that state-led environmentalism is a hierarchical process that intermittently co-opts and excludes local populations to advance the state's territorial ambitions, which are anchored in geographical, geopolitical and socio-technical imaginaries of 'maritime civilization'. Yet, I also show that in this process, the SCS emerges as spaces of vernacularized political claims. Thus, I argue that territory is not only a political technology of control but also vernacular practice through which universalizing discourses— whether on the Exclusive Economic Zone regime, sovereignty or nature—are adapted and modified.

Keywords: state-led environmentalism, imaginaries, maritime civilization, vernacularization, China, South China Sea

Introduction

In early Spring 2015, I arrived in Tanmen—a fishing port and a cluster of fishing villages with a population of over 32 000 located on the east coast of Hainan Island, China—to conduct four months of ethnographic fieldwork.[1] Since the 2010s, Tanmen fishers have become China's best-known maritime militia (Zhang, 2016), as they were involved in the construction of artificial islands in the South China Sea (SCS) and bolstered China's maritime sovereignty. Passing the broad and modern bridge just before the entrance to Tanmen, I saw the skyscrapers that have been mushrooming on the other side of Hainan's harbour in recent years, which my driver jokingly described as 'little Dubai'. Despite the skyscrapers, Tanmen was among 12 sites in Qionghai county chosen to be an 'ecological civilizational village'. This program is based on a new development philosophy that emphasizes innovative and green development in which humans and nature are balanced and complement each other (The People's Government of Hainan Province, 2022). With the county's financial help, the main

street of Tanmen had been freshly renovated and stylized as a showcase of the town's ancient fishing tradition in the SCS. In turn, the booming craft industry of processing and selling fossilized giant clamshell artwork (砗磲) to tourists from the mainland testified to the entrepreneurial spirit and the modern lifestyle of Tanmen fishers. The centuries-old shells of endangered bivalve mollusks (*Tridacninae* subfamily) were extracted by Tanmen fishermen from coral reefs in the Spratlys and Paracels—two archipelagos claimed in whole by China and Vietnam and in part by Taiwan and a number of Southeast Asian states—as well as from the Scarborough Shoal, which is claimed by China, Taiwan and the Philippines. A child could hide in some of the attractively polished shells, which traded for as much as USD 3500. Called the 'jade of the sea (海的玉)', most processed shells were sold in more than one hundred shops belonging to fishing families (see Figure 1), while some were displayed in a private museum, a cooperative effort of a local fishing company and the Tanmen government. This museum exhibited and auctioned giant clamshell artwork as evidence of the fishers' superior maritime knowledge and as proof of the long-term utilization of the sea by Tanmen fishers—and thus by China.

When I returned to Tanmen in 2019, the shops were closed and the stylish wooden museum with the only coffee shop in the town—which I fondly remembered from my first visit—had been demolished and replaced with a fish market. Once a bustling tourist attraction, Tanmen had turned into a deserted, sleepy town. A few kilometres away on the other side of the harbour, the state had built the official South China Sea Museum, where permanent exhibitions narrated China's maritime history and ecology, as well as the state's effort to protect the sea environment of the Xisha Islands (Paracels), the Nansha Islands (Spratlys), the Zhongsha Islands (Macclesfield Bank and Scarborough Shoal), and the Dongsha Islands (Pratas Islands)—referred to as the 'Four Islands' (四沙). In addition to a reference to Qing Admiral Li Zhun, whose naval team

Figure 1. *Giant clamshell artwork sold in a local shop, Tanmen, Hainan.*
Source: Author, 2015.

allegedly 'inspected' the Paracels and conducted explanatory surveys at the beginning of the twentieth century, the museum displayed Tanmen fishers' logbooks—claimed to be a few hundred years old—as evidence of a historical Chinese presence in the disputed archipelagos and proof of China's sovereignty over the SCS. None of these exhibitions mentioned Tanmen's harvest and craft of giant clamshells, an industry that withered overnight in the face of a vigorous environmental clampdown. The artwork disappeared from fishers' shops in the name of a 2017 law that prohibits the harvest and trade of fossilized giant clamshells. Strolling through the main street with its empty shops, I wondered: what caused this U-turn in the government's approach to an industry that had provided a decent income to Tanmen fishers? Had the Chinese state become more sensitive to the environmental destruction that the harvesting of fossilized shells from coral reefs inevitably causes, after years of turning a blind eye? Is this newly state-enforced environmental vision of the SCS as a 'green coral reef ecological environment' in contradiction with the way fishers imagined and enacted their relationship with the sea?[2] Finally, how does China's construction of artificial islands on coral reefs fit into the new philosophy of harmonious coexistence between humans and nature?

To solve this analytical puzzle, I explore how China discursively construed and practically constructed the SCS as (maritime) national territory by mobilizing fishing legacies and extending state limits through 'state-led environmentalism' rhetoric. By state-led environmentalism, I follow Yifei Li and Judith Shapiro's (Li & Shapiro, 2020: 17) definition, which refers to a state-controlled environmental governance system that lacks participation from non-state actors in shaping environmental policies. However, the making of the SCS into national territory involves competing narratives. In this article, I show that both the fishing legacy and state-led-environmentalism have been used to justify destroying coral reefs by transforming them into artificial islands. In this way, I extend Li and Shapiro's (2020) thesis of coercive environmental governance by arguing that state-led environmentalism is also a hierarchical process that intermittently co-opts and excludes local populations to advance a state's territorial ambitions that are anchored in geographical, geopolitical and socio-technical imaginaries of civilizational development and progress.

To develop my argument, I begin by discussing how China envisions its construction of artificial islands as a large-scale ecological project that integrates marine exploitation with environmental protection. The next section shows that China's encounters with the sea is predicated on new geographical, geopolitical and socio-technical imaginaries of the country as a 'maritime civilization' (海洋文明) capable of developing the ocean economically as it solves environmental problems. Unpacking these imaginaries is paramount to our understanding of China's state-led environmentalism as it reorients itself towards the sea and thus produces a 'maritime territory' (Roszko, 2015). Taking the ethnographic case of Tanmen—a historical and geographical stepping-stone to the Paracels and Spratlys—the remainder of the article analyses how the state capitalizes on the historical presence of fishers in those waters to build a new spatial regime of governance: a military-civil system of day-to-day control over contested areas of the SCS that, at the same time, employs the overfishing argument as justification for the implementation of new 'environmental solutions' to the sea.

Rather than viewing this relation in terms of a top-down hierarchy, I demonstrate that while universalizing discourses—such as China's rhetoric of ecological development and environmental protection of the SCS—are used to justify the territorialization of the sea (Roszko, 2015: 245; see also Vandergeest & Peluso, 1995), this is possible

because the discourses are also produced and practised locally by 'ordinary' people, for their own purposes, as they are drawn into the process of territory-making. Drawing inspiration from the literature on the *vernacularization* of human rights—a process that embeds universalist ideas and practices into local understandings of social life—I examine how international concepts and ideas referring to the sea and nature are reshaped through encounters at global and local scales (Merry & Levitt, 2017). Thus adding another layer to Stuart Elden's analysis of territory as a political technology of control (Elden, 2013; 2021a; 2021b), my ethnography shows that territory is also a pragmatic process of vernacularization that requires translations and negotiations of authoritative knowledge within particular spatio-temporal and social contexts, and thereby transcends territory understood exclusively as a material register.

Developing the SCS through state-led environmentalism

In the last decade, SCS has come under the international media spotlight as a geopolitical flashpoint over sovereignty claims by China, Taiwan and a number of Southeast Asian countries. The conflict occasionally leads to armed confrontations at sea and violent protests on land. Behind these apparently intractable disputes lies resource rivalry, over important fisheries, as well as the strategic importance of the SCS as the world's busiest shipping lane. Major world powers such as the US—seeking to resist China's dominance and safeguard free shipping—and emerging powers such as India—seeking to secure oil and gas supplies through offshore concessions from some of the Southeast Asia countries—have been drawn into the dispute as well.

   While much of the literature focuses on economic, military and political dimensions (e.g., Do Thanh Hai, 2017; Buszynski & Roberts, 2015), some studies have sought to understand the SCS disputes in terms of cartographic representations of territory, maritime sovereignty, sovereign rights, or localized, politicized and territorialized fisheries (Hayton, 2014; 2019; Sasges, 2016; 2020; Roszko, 2015; 2020; Zhang, 2016; Zhang & Bateman, 2017). Elsewhere I have shown that rather than an abstract and bounded state territory, the disputed Paracel and Spratly archipelagos are the historical fishing grounds of ethnically diverse groups (Hainanese, Việt, Cham, Bugis and others) who became familiarized with these spaces through seafaring, fishing, planting coconut trees or even salvaging cargo from shipwrecks (Roszko, 2017: 36−9).[3] The historical presence of Hainanese fishers is at the heart of China's territorial claims, cartographically visualized by a 'nine-dash' line enclosing the greater part of the SCS and ostensibly representing the space in which those fishers operated in previous centuries. This claim was rejected by the Permanent Court of Arbitration (PCA) in a press release at The Hague on 12 June 2016, which stated that 'although Chinese navigators and fishermen, as well as those of other states, had historically made use of the *islands* in the South China Sea, there was no evidence that China had historically exercised exclusive control over the *waters* or their resources' (Permanent Court of Arbitration, 2016).

   However, we still lack analyses that take a closer look at how the SCS is construed and constructed through a state-led environmental rhetoric that unfolds not only on global and regional scales but also on the ground, through localized encounters. State-led environmentalism in the form of government policies for development or poverty-alleviation, which have now been consolidated under the state program known as 'Opening up the West', has been well-analysed in relation to China's borderland regions of Tibet or Xinjiang. Emily Yeh (2009) shows that these policies are often sanitized by the rhetoric of economic growth with environmental improvement.

This so-called 'greenwashing' or 'greenspeak' goes hand-in-hand with 'authoritarian environmentalism' in the form of the bounding of nature, conservation and exclusion of local inhabitants (Li & Shapiro, 2020: 96; see also Büscher & Davidov, 2014; Havice & Zalik, 2019). As Li and Shapiro (2020: 19) persuasively argue, '[s]tate-led environmentalism can, and often does, serve non-environmental ends to strengthen the authority and reach of the state'. Displaying China's 'teleological graduation into eco-rational modernity' (Yeh, 2009: 884), the logic of land-oriented ecological projects has now been applied to the SCS through the concept of 'opening up the sea' (开发海洋), including a massive island reclamation under the banner of 'green project' (绿色工程). In order to understand how laws and ideas about nature have been made to resonate with China's sovereignty claims, I will first consider them in relation to the political materiality of terrain or, more precisely, sea surface topography.

The Law of the Sea Convention (LOSC) gave coastal states full sovereignty over twelve nautical miles of territorial waters only and the exclusive sovereign right to explore, exploit, conserve and manage all natural resources within an Exclusive Economic Zone (EEZ) that extends 200 nautical miles outward from the coast into the sea.[4] While the exclusive EEZ rights do not extend to *de jure* sovereignty, China's national discourses construe its contiguous EEZs as *de facto* sovereignty (Hayton, 2014; 2019) over the whole SCS, a point I develop further as I discuss geographical and geopolitical imaginaries. Paradoxically, China's (and other claimants') land reclamation in the SCS is embedded in the logic of LOSC, which requires that islands have to be able to sustain human habitation or economic life on their own in order to be a valid basis for claims to 200 nautical miles of an EEZ. By contrast, rocks are only entitled to 12 nautical miles of territorial sea, as LOSC's Article 121 stipulates.[5] As a matter of fact, many of the rocks in the SCS are low-tide elevations which cannot sustain human habitation or economic life and, therefore, cannot 'generate' sovereign claims and EEZs as they are. The construction of artificial islands on reefs and shoals, the upgrading of governance of these features to prefecture-level Sansha City under Hainan province, the habitation by military, civilian and law enforcement personnel, the settlement of fishers, the creation of an environmental protection centre, the construction of wind and solar power facilities and seawater desalination plants, and the development of aquaculture all serve to produce 'territory' on which a continuous human presence can be maintained on previously uninhabitable sea features.

A crucial question was addressed in the definitive ruling in the matter of the SCS arbitration at The Hague with regards to the Philippines' allegations concerning China's environmental violations in the disputed waters. Looking specifically at the environmental impact of China's 'harmful fishing practices' and 'harmful construction activities', the Tribunal took into account not only the judgement of a marine ecologist engaged by the Philippines, but also the findings of unbiased experts in coral reef and fisheries issues that it appointed.[6] In their alarming reports, both the Philippines' and the Tribunal-appointed experts were unanimous in finding that the 'extraction methods' employed by Chinese fishers and the burial of coral reef habitats during the construction of artificial islands inflicted 'unprecedented' harm and 'exceeded' anything previously seen regarding coral reef degradation.[7] These experts gave no credence to China's state-led environmentalism rhetoric that envisions island creation as a means of environmental protection.

Environmental harm identified by the experts included 'widespread chopping of reefs by fishermen using propellers mounted on small boats in order to extract giant clam shells', which were clearly visible on satellite images.[8] One expert pointed directly

to fishers from Tanmen as those who were heavily involved in the exploitation of the reefs, and stated that there exists 'abundant evidence that China's navy and coast guard have been aware of the Tanmen fishers' practice of chopping and tolerated or condoned it'.[9] Consequently, the Tribunal concluded that Chinese fishers have been engaged in large-scale harvesting of coral, giant clams and endangered sea turtles, and their methods caused widespread degradation of the coral reef environment. Although coral reefs and giant clams are protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and by Chinese domestic law, the Tribunal found that Chinese authorities were 'fully aware of the practice and actively tolerated [it] as a means to exploit the living resources of the reefs in the months prior to those reefs succumbing to the near permanent destruction brought about by the island-building activities'.[10]

In response to the allegations, a Chinese Foreign Ministry Spokesperson at the Tribunal refuted the coral reef experts' findings, insisting that the sites selected for construction of artificial islands in the SCS were located on already dead coral reef. He did not deny the land reclamation on the coral reefs in the Spratlys, but underplayed its negative effect while highlighting the careful methodology employed to assess and mitigate any environmental risk. He asserted that the massive land reclamation in the SCS was not about causing harm to the marine environment; China observes a 'concept of "Green Construction, Eco-Friendly Reefs" in protecting the ecosystems'.[11] Articulating a state technological vision of environmental innovation in the SCS, he stated:

> The expansion of the Nansha [Spratly] reefs uses the 'nature simulation' method as its comprehensive technical concept. This method simulates the displacement of bioclasts such as corals and sands during windstorms and high waves; this biological detritus settles on the combined equilibrium points of the shallow reef flats to form stable supratidal zones which then evolve into *oceanic oases*. Big cutter suction dredgers are used to collect the loose coral fragments and sands in the lagoon and deposit them on bank-inset reefs to form supratidal platform foundation on which certain kinds of facilities can be built. Through the natural functions of the air, the rain, and the sun, paving it with some quick man-made material, the land reclamation area will produce the ecological effects by going from desalination, solidification, efflorescence, to a green coral reef ecological environment (*Emphasis added*).[12]

In this wishful way of thinking, human intervention stimulates natural growth of 'green' coral reefs, creating 'oceanic oases' of ecological and economic value. The phrase 'oceanic oases' is particularly interesting because it builds on state scientific and technological visions that understand the sea, on the one hand, as a 'vast, remote and inaccessible place separate from human activity' but, on the other, as a quasi-terrestrial space of opportunities where nature is put to economic value and, thus, suitable for extraction and conservation (Havice & Zalik, 2019: 220). Chinese scholars show that environmental governance rhetoric under President Xi Jinping has focused increasingly on 'solutions to environmental problems and modernization through innovation' (Fabinyi *et al.*, 2021: 138). The innovation here does not refer to the idea that nature has implicit value regardless of whether it produces benefit to humans or not, but rather implies that the innovation 'can improve economic development and modernization' (Fabinyi *et al.*, 2021: 138). The following excerpt from China's explanation to the Tribunal illustrates this logic:

> Nowadays, coral reefs are utilized mainly for four purposes. First, for national defence and military purposes. [*e.g.*, U.S. and Japan] … Second, for coastal tourism development … Third, for the construction of port terminals. [*e.g.*, Bahamas, Sudan, Papua New Guinea and

Australia] … Of course, rigorous protection standards must be complied with when carrying out construction in the coral reef areas.[13]

China's argument on 'nature simulation' was categorically rejected by Professor John McManus, director of the National Center for Coral Reef Research at the University of Miami and one of the Tribunal-appointed experts (*The Diplomat*, 2016). On the day the PCA released its ruling, McManus repeated what he had told the Tribunal, namely that China's dredging and island building activities had 'nothing to do with the natural reef island building process' but, on the contrary, were destroying the environment (*The Diplomat*, 2016). He added that China might be literally correct when it claims that the artificial islands are 'only built on dead coral', but this is only 'because the coral had been destroyed by giant clam fishermen' (*The Diplomat*, 2016). McManus' evidence is echoed in the Tribunal's written conclusion: China was responsible for the devastation of coral reef. The conclusion also suggests that 'fishermen were allowed to harvest the clams on features where China would soon be building, precisely because Beijing was aware that those reefs would soon be devoid of life' (*The Diplomat*, 2016).

China's explanation to the Tribunal provides a good example of vernacularization of international concepts and ecological knowledge, thus resonating with the local context while being in tune with national interests. The land reclamation in the SCS—which aimed to create valid bases for claims to EEZs—is constructed as a scientific achievement that demonstrates superior environmental engineering and civilizational advancement. The engineering of the SCS reefs also demonstrates the relevance of Elden's (2021a: 177) argument that terrain is material and voluminous, and needs to be understood in relation to the process of making and remaking territory. Elden advances his argument by saying that while 'territory' is a political technology of control (Elden, 2013), the concept of 'terrain' helps us to think about the dimensionality and materiality of territory that otherwise would have been neglected (Elden, 2021a: 170). In reference to the SCS, the 'political materiality' (Elden, 2021a) of the seascape lays bare its 'malleability' by human-led processes that manipulate nature and transform scattered reefs into bounded national territory eligible for environmental regulations and development targets. Hence, China's preferred narrative deems the expansion of reefs through the simulation of natural processes necessary for sustainable development and modernization but, above all, for the 'protection' of ecosystems because nature itself 'failed' to regenerate.

According to Elizabeth Economy (2004: 55), China's 'tradition of exploiting the environment for man's need, with relatively little sense of the limits of nature's or man's capacity to replenish the earth's resources', goes back to Confucian philosophy, which prompted the exploitation rather than the conservation of nature. However, here I am in agreement with Robert Weller (2006: 48): the 'image of nature as mechanism (…) understood through science and manipulated through engineering' came to China via post-Enlightenment Europe rather than Confucian thought. Until the encounter with 'Western ideas of the cultural and technological triumph over nature', the early manipulations of land and water in imperial China did not subjugate nature to a ruling humanity in the manner known today. Contrary to Economy's (2004: 49) argument, it is not socialism that should be blamed for the (Maoist) wishful thinking according to which the mobilized masses could overcome every challenge by conquering and taming the environment. Hence, China's take on the environment is a 'variant' of a 'much larger modernist war against nature' that goes back to nineteenth-century Western environmental ethics (Weller, 2006: 50; see also Scott, 1998). With the

modernist focus on 'developing the ocean economy', China now enters the global competition with rival states through cutting edge, high-tech ocean governance that opens up a new extractive frontier (Peluso & Lund, 2011; Rozwadowski, 2019; Havice & Zalik, 2019). To fully understand how China could talk about 'opening' and 'developing' the sea while simultaneously destroying the fragile marine ecosystem, I introduce geographical, geopolitical and sociotechnical imaginaries of a 'maritime civilization' that subsume state-led environmentalism in conjunction with the fluid materiality of the sea.

Geographical, geopolitical and sociotechnical imaginaries

Imaginaries are usually understood as lacking factual reality, but they also are associated with the creative ability to imagine the world beyond the existing. A *social imaginary* is the outcome of the way ordinary people imagine their social surroundings, and is often expressed in everyday terms; 'it is carried in images, stories, and legends;' both factual and normative, it is 'that common understanding that makes possible common practices and a widely shared sense of legitimacy' (Taylor, 2002: 106). Derek Gregory (1994) shows that the human ability to imagine is never singular but conveys a sense of the physical and social worlds in multiple cultural images. These images cannot exist without certain spatial geographical knowledge, but also has a temporal dimension through multilateral engagement with the past and the future (Prince, 1962).

Linking the past and the future, geographical, geopolitical and sociotechnical imaginaries are embodied in material practices but also in moral discourses on civilizational progress and development (Jasanoff, 2015; Harms, 2017; Winter, 2019; Li & Shapiro, 2020). While geographical imaginaries refer here to the socially and hierarchically construed spatial order in specific locations (see Prince, 1962; Gregory, 1994), geopolitical imaginaries denote political discourses, representations and practices that circumscribe certain locations as clearly delineated spaces of power. The U-shaped line, the product of a geographical imaginary, gives meaning to the idea that this territory is China's 'near-sea' (近海), a new strategic concept that clearly portrays China as a geopolitical maritime power (海洋强国). China's rhetoric of geographical and geopolitical imaginaries of 'near-seas' and 'faraway-seas' (远海) as well as its protection of 'overseas interests' (海外利益) intensified after the *2015 Chinese Defense White Paper* was issued. This paper elevated the maritime domain in China's strategic and developmental thinking, arguing that 'the traditional mentality that land outweighs sea must be abandoned' (The State Council Information Office of the People's Republic of China, 2015). China's disregard of competing sovereign claims in the SCS stands in sharp contrast with the positive image of itself as a global and regional guarantor of peace and security, as projected in its *2019 Defense White Paper*. While describing its relationship with other Asian nations as 'a community with shared destiny', the 2019 document declares the disputed maritime territories to be 'inalienable parts of Chinese territory', thereby construing its geographical and geopolitical imaginaries as unassailable (The State Council Information Office of the People's Republic of China, 2019).

The construction of geographical and geopolitical imaginaries requires from China self-reflection and introspection into the nation's past in order to connect it with a sociotechnical vision of future collective good not just for the community or nation, but for the whole planet. In China, this is captured by the concept of 'ecological civilization' (生态文明), which is both backward-and forward-looking, as it describes the continuous course of development under the leadership of the Communist Party

(Li & Shapiro, 2020: 6; see also Fabinyi *et al.*, 2021). Functioning as a framework for China's environmental law, ecological civilization denotes a new understanding of sustainability as a harmonious relation with nature that the Chinese nation is continuously developing and improving for the better common future of humanity (Fabinyi *et al.*, 2021: 137). Fitting into the Marxist theory of stages on economic development, the imaginary of 'ecological civilization' extends the linear process of transformation from agricultural to industrial civilization under Mao Zedong and then to material civilization under Deng Xiaoping (Li & Shapiro, 2020: 6). I argue that under Xi's aspirational goal to 'rejuvenate' China as a great maritime power, this vision of 'ecological civilization' extends to maritime spaces and expresses itself in a sociotechnical imaginary of China as a 'maritime civilization'.

A master plan to reclaim the maritime, both past (Blussé, 2018) and future, involves the interconnected geographical, geopolitical and socio-technical imaginaries of China as a world leader in shipbuilding and fishing. Such ambition is based on the belief that any environmental problems encountered on this path to modernity can be mitigated and solved through continuously advancing technologies, such as the land reclamation in the SCS that simultaneously protects and exploits marine ecosystems and fishery resources, as explained to the Tribunal at The Hague. China's imaginary of 'ecological civilization', therefore, puts the development of a distant-water fishing industry at the forefront of China's policy objectives to ensure food security for the Chinese population (see Zhang, 2016: 69). One consequence of such policies is a high number of fishing vessels operating in the SCS and beyond, often engaging in illegal fishing. Hainan found itself the beneficiary of various new programs for so-called sustainable fishing. As a part of the 13th Five-Year Plan (2016–2020) to support President Xi's 'ecological civilization' agenda, fishers were financially incentivized to abandon small-scale fisheries (SSFs) along the coast in favour of deep-sea fisheries offshore (Zhao & Jia, 2020). At the same time, the state sought to transform the existing SSFs into tourist destinations with standardized fishing vessels, 'rustic' fishing villages and a well-developed port economy (Zhao & Jia, 2020). Hence, Tanmen was designated as a 'civilizational eco-village' and a site of 'nostalgic culture of traditional fishing' (Zhu *et al.*, 2020) in a state developmental program to 'build a resource-saving and environmentally friendly society' (Zhao & Jia, 2020: 2).

Thus, the fishing port of Tanmen—home to the giant clamshell fishers—became a launching platform for deep-sea fishing, additionally serving as a shelter against typhoons and as a supply base with materials and foodstuff for construction projects in the SCS. When in 2015 I asked a leading official of the Qionghai Bureau of Investment Attraction in Hainan to explain what it means to 'develop the ocean', she replied that President Xi Jinping's new strategy aims to develop a large-scale fishing industry in the open-sea waters, known as 'opening the sea'. She then clarified that development of the marine fishing sector does not necessarily refer to wild fish; central and provincial authorities saw fish farming as a solution to the rapid depletion of fish stock in China's coastal waters. In addition, the giant clamshells industry was another good source of sea-derived income. A bulletin distributed by The People's Government of Qionghai lays out its ambitions for the ocean economy sector: 'Strive to develop offshore fishing and aquaculture and develop high-tech and high value-added products. (…) Qionghai will enhance its infrastructure construction for sea travelling and build famous scenic spots for sea exploration, to organically integrate with the protection of marine ecology and development for travelling' (The People's Government of Qionghai, n.d.).

Altogether the geographical, geopolitical and sociotechnical imaginaries bring attention to the 'materialities of actual geographical configurations, relations and processes' in the representation of the 'real' world (Harvey, 1984). Materialities matter as they have a bearing on politics and the way the state conceptualizes its power (Peters *et al.*, 2018; Havice & Zalik, 2019; Ong, 2020). While the fluid materiality of the sea challenges a static perspective of territory, it also demonstrates that 'maritime territorialization' (Roszko, 2015) requires the rationalization of the ocean as an empty two-dimensional space ready for modernization and infrastructure, much like Scott's (1998) 'state simplification' of the terrain. Here, the state's geographical, geopolitical and sociotechnical imaginaries of 'maritime civilization' infiltrate the fluid space of the sea, simultaneously co-opting and excluding local populations from developmental pathways. The next section examines this process with reference to the vernacularization of territory beyond the material register and state-led environmentalism.

Vernacularizing territory

Societies not only imagine what their historical beginning might be; these shared imaginaries—and, thus, social memory—are also embedded in physical landscapes and have to be nurtured through repetitive rituals and bodily practices (Connerton, 1989; Jasanoff, 2015). As Sheila Jasanoff (2015: 6) argues, imaginaries operate 'at an intersubjective level, uniting members of a social community in shared perceptions of futures that should or should not be realized'. This brings up the ethnographic question of what happens when the seascape of reefs, rocks and shoals that local communities get to know through their seafaring and fishing activities is entirely transformed into a high-tech state 'territory'? What is the effect of such a newly produced spatial regime of governance on local ecological knowledge and skills? To answer these questions, let me turn now to my ethnographic findings from Tanmen.

In contrast to the narratives projected in the Chinese media, I observed during my fieldwork in 2015 that the cargo brought by Tanmen fishers did not contain fish but tons of centuries-old fossilized giant clamshells that had been extracted from coral reefs in the Paracel and Spratly archipelagos as well as in the Scarborough Shoal. Most tourists did not realize that the fish they enthusiastically photographed and consumed was caught in nearby coastal waters by boat-dwellers known as sea nomads or Dan-jia ren who came from other parts of Hainan. Provided by long-term Tanmen residents with small boats and fishing gear, these migrant fishers filled the vacuum in the fish supply chain created by the giant clamshell business.

Already in the nineteenth century, live giant clams were valued by Chinese people for their flesh, which is viewed as an aphrodisiac and has become a culinary delicacy, much like the cured sea cucumber known as trepang or *bêche-de-mer*. In Tanmen, after taking the meat out, the discarded giant clamshells were used in the production of wall paint. In 2013, fossilized giant clamshells became the foundation of an entirely new economy. Retrieved from coral reefs, their shells were much thicker than those of live giant clams and, over time and experimentation, fishers discovered that the fossils could be carved like jade stones or elephant tusks when gentle tools were used under an abrasive water stream. The thick, fossilized, giant clamshells that dotted lagoons and shallow reefs thus gained a new aesthetic value (see Figure 2).

The fishing community had long extracted red coral and hunted for tortoise shells to be transformed into jewelry and decorative art, but in 2015, most Tanmen fishers

Figure 2. *Turning fossilized giant clamshells into artwork in a local workshop, Tanmen, Hainan.* *Source*: Author, 2015.

were relatively new to the giant clam industry. Fishers explained that the giant clamshell industry owed its success to President Xi Jinping's visit to Tanmen in April 2013, when he launched a new policy promulgating the 'development of the sea economy' (发展海洋经济). In the same year, the local government proclaimed Tanmen's giant clamshell processing to be a pillar industry, a designation that made available subsidized loans and other benefits (Zhu *et al.*, 2020: 542). Anticipating environmental concerns, state authorities were careful to set a limit on how many fossilized clamshells each subsidized fishing trawler was allowed to harvest. Ironically, the allocation of quotas for clamshells legitimized fishers' destruction of coral reefs. Members of one fishing family showed me the workshop where they had processed red coral sourced from Indonesian waters for more than twenty-five years and had now expanded to process fossilized giant clamshells. Fishers took pride in their 'fishing' operations and turned their front houses into stylish shops that sold the artwork of giant clams, red coral, ancient ammonite from Madagascar, or even beads made from ancient glass pottery recovered from shipwrecks. In their conversations with me, fishers stated that techniques for processing fossilized clamshells had been known for more than a decade, but the lack of suitable technology and of access to the disputed territories in the SCS hindered plans for the more intensive extraction of the shells from the reefs. This changed with the visit by President Xi Jinping in 2013.

In 2015, a big billboard with the image of President Xi and a group of fishers celebrating his historic visit was proudly displayed at the main entrance to Tanmen. Local newspapers reported that President Xi directly addressed Tanmen fishers: 'The [Communist] party and our government will make more efforts to take care of you guys … and I wish you all the best when you go fishing—have good harvests and catch more big fish' (*South China Morning Post*, 2013). The local government and fishers interpreted 'big fish' as a reference to giant clamshells.

A 31-year-old fisher from Tanmen—who had his own business of processing giant clamshells and whom I call here Boijing—reported that during his visit, President Xi personally encouraged fishers to resign from the use of traditional wooden boats. During the interview, Boijing explained that lavish state subsidies persuaded fishers to buy steel-hulled trawlers, also known as 'iron boats' (铁船), which enabled risky but potentially lucrative long-distance operations at the sea:

> With the current sailing conditions, wooden boats and iron boats are definitely incomparable. Chinese man-made wooden boats went to the sea for thousands of years. But now when we have to go and fish, we must rely on iron ships, which are better suited to withstand the blows of wind and waves (Boijing, pers. comm., Tanmen, March 2015).

Boijing's phrase 'go and fish' included giant clamshells. In the context of the SCS disputes, subsidized powerful boats both sustain fishing operations and serve as a means of furthering China's territorial claims in disputed territories. However, the state's designation of grounds for fishing put fishers in a situation where they had to operate in contested areas. This proved to be a double-edged sword for the fishers, who had been sent to fish-depleted waters in spaces where rival states claimed their activities to be illegal (Roszko, 2021). Tanmen fishers addressed the first conundrum by extracting fossilized giant clamshells from disputed archipelagos, thereby turning the massive exploitation into a *de facto* territorial claim. To break up coral that encased giant clamshells, Tanmen fishers used propellers and tubes mounted on small boats that scoured the shallow sea-floor and released the shells. Their crane-equipped trawlers were able to lift aboard the small boats filled with the retrieved shells, which were then stored directly on deck or in the fish compartments below (see Figure 3). Back home, to keep a low profile, Tanmen fishers anchored their trawlers loaded with hundreds of shells on the other side of the harbour, far from prying eyes.

Figure 3. *Cargo of fossilized giant clamshells on the trawler's deck, Tanmen, Hainan.*
Source: Author, 2015.

After years of neglect and economic struggle, fishers felt that they finally won the government's well-deserved attention and they saw real prospects for development and wealth in their community. They explained that the President considers them to be the people who 'protect the sea' (保护南海) and for that reason they enjoyed his great respect. They clarified that 'protection of the sea' does not refer to the environment but rather to the national duty to safeguard the fatherland's sovereignty and its marine resources against coastal countries such as Vietnam or the Philippines. Boijing described the connection of fisheries to national sovereignty in the following words:

> In the past two years, we in Qionghai county have vigorously built a green rural city and the state has called for the development of offshore fishing operations. Qionghai is a national strategic wharf, which means that we are fishing in order to defend the sovereignty of the South China Sea. In addition, our living standards have improved a lot in the past few years. In the past three years, the appearance of entire Tanmen has changed a lot. It has attracted many foreign businessmen to invest in the seafood industry, clamshell processing and tourism (Boijing, pers. comm., Tanmen, March 2015).

As an embodiment of sovereignty, fishers not only extended the national territory but also contributed to the economic revival of the region. When I offered the opinion that the extraction of giant clams might destroy the marine environment and asked how Tanmen residents plan to protect ocean, Aiguo, a 28 year old owner of a giant clam workshop—whose late grandfather was celebrated in Tanmen as a hero for making many daring trips to the disputed archipelagos—explained:

> We in Tanmen harvest dead shellfish, not live … Harvesting dead shells does little damage to the environment … The damage is not particularly big. In fact, when it comes to damage, it is the Vietnamese and Filipinos … Their tools for harvesting clams are not good and the harvesting is very destructive. Our production equipment in China is advanced, so our harvesting is less destructive. We harvest dead shells. But in poor countries like Vietnam, they don't care about this kind of problem. They harvest live clams and coral (Aiguo, pers. comm., Boao, May 2015).

By claiming that Tanmen fishers' extraction only concerned dead giant clams, Aiguo implicitly supported the state argument that the artificial islands were built on already dead coral reef. Fishers extracted 'already' dead clams. In the case of reefs, any damage was temporary and could be easily mitigated with high-tech equipment. Therefore, in Aiguo's perception, the responsible extraction of giant clamshells was a matter of appropriate technology. In this, Aiguo also replicated the state discourse about China's advanced civilization in comparison with the 'backward' Southeast Asian countries and their 'primitive' technological tools.

Yet, despite Tanmen's growing wealth, local residents grew concerned about their future as they speculated that the natural reserves of giant clams would be exhausted and they might need to look around for new opportunities to earn a living at sea. In addition, the business was risky as a number of Tanmen fishers were arrested by the Philippines Marine Police and jailed for illegal poaching of giant clams, coral reef and turtles. Also, the local government started to feel pressure from Beijing to put an end to the giant clamshell industry. To avoid international embarrassment, the harvest, transport and trade of unprocessed giant clamshells was reluctantly banned by Tanmen authorities in March 2015, just two weeks before international guests flew into Boao—a small resort town close to Tanmen—to attend the Asia Annual Conference. Since 2008, Boao has served as a permanent address for high-level annual forums that bring

together government, business and academia to promote economic integration and development goals in Asia and beyond. The new regulation on giant clamshells—issued jointly by the Tanmen Town Government, local police, customs officers, border police and the Fishing Association—changed little, if anything at all. Tanmen fishers had their own way to go around the new state regulation. They sold the shells at night in the inner harbour without offloading the cargo from the trawlers onto the quay, which was prohibited. On one occasion, I was invited to see the night market. While I was aboard a trawler, the onboard lights of all ships in the harbour went off, plunging the harbour into darkness for a few minutes. A fisher whispered that a coastguard police vessel was passing but ensured me that they had a silent agreement: by turning the lights off, the police could act as if they had seen nothing.

Tanmen residents expressed a strong opinion that local authorities were sympathetic to fishers and were aware of the benefits that the giant clam industry brought to the entire community. A similar opinion was shared by a local reporter who works for a Qionghai newspaper and regularly visits Tanmen, and with whom I had many informal conversations. He said that he is not in a position to assess the justice of the new provision on harvesting and trade of giant clamshells but he understands that, thanks to the wealth derived from the shell industry in the previous few years, the living standard of Tanmen residents greatly improved and the town is flourishing. While Tanmen authorities have been careful not to be seen as involved with the giant clam business, some had relatives and friends who owned handicraft workshops and shops. This conflict of interest made it more difficult for them to clamp down on illegalized harvesting of giant clams. On some occasions, Tanmen residents showed me a trawler anchored in the main fishing harbour that allegedly belonged to the local government. When I peeked at the deck of that trawler, I saw a tarpaulin that exposed the outlines of giant shells beneath.

Evidence of the coral reef destruction by China's land reclamation in the Paracels, Spratlys and Scarborough Shoal started to mount and eventually exploded in 2016, when the Tribunal at The Hague announced its ruling with reference to the Philippines' allegation that China had violated LOSC requirements regarding environmental protection in the SCS. A full ban on the sale, purchase, and use of giant clamshells for artwork came from the central government in January 2017—a move that caused the closure of more than 100 hundred workshops and deprived income for fishing families and thousands of artisans. Inflicting significant financial and emotional distress in the fishing town, the ban forced residents to remove clamshell artwork from their shops and limit their losses by taking their trade underground. Some heavily invested fishers closed their shops and moved to Qionghai town in search of new employment. Others quickly figured out that the state crackdown on giant clamshell trade did not concern fossil agate coral rocks, which they could obtain from the mountainous region of Sumatra, but most fishers considered the Indonesian fossils to be problematic because they were not local, and therefore not 'national'. While the ban came as a shock to the many fishing families who had heavily invested in the giant clamshell business, they found it almost painful to talk about and quietly whispered that life in Tanmen had become a hardship again. They again felt marginalized and left to their own devices to make their living. They played a cat and mouse game with the state by selling their giant clamshell artwork on the black market. The ban came at a time when both domestic and international media blamed the fishers for endangering marine biodiversity in the SCS. The ban was celebrated in the national media as China's commitment to natural resource protection through a long-awaited crackdown

on fishers' illegal activities. Not coincidentally, the ban was imposed after China had nearly completed its conversion of reefs into artificial islands.

President Xi's high-profile visit to Tanmen in 2013—to express government support for fishers by providing subsidies for the purchase of the high-tech fishing trawlers that expanded their fishing operations—generated a short-lived and unsustainable wealth predicated on massive land reclamation as a territorial claim. The resulting environmental havoc in the SCS caused by the extraction of giant clamshells was mitigated on paper by—rather delayed—environmental laws and regulations that targeted the giant clamshell industry and local populations. The state's environmental campaign against the extraction and trade of giant clamshells did not translate into policies to change fishers' behaviour. Quite the opposite: through the ongoing underground trade of giant clamshells and the transition to new organic materials, fishers quietly resisted the state's newfound environmental zeal.

The fishers' agency brings me back to Elden's (2021a; 2021b) analysis of terrain as the political materiality underlying territory (as a political technology). I argue that such materiality cannot be reduced to exclusively legal, economic, strategic, technical or scientific aspects. Thinking about terrain as a 'deliberate act of memorialisation with practical acts, material sites and objects' (Salemink, 2021: 770) might be helpful to conceptualize territory as not only physically produced but also translated *as* rather than *through* localized and vernacularized authoritative claims and forms of knowledge. Historically, the disputed archipelagos of the SCS constituted a terrain that existed and took on meaning in relation to people, weaving together their physical and cultural worlds (Roszko, 2020; 2021). In Tim Ingold's (2000: 189; *emphasis added*) words, such terrain 'enfolds the lives and times of predecessors, who, over generations, have moved around in it and played their part in its *formation*'. Ingold calls it a 'taskscape' that includes human, technical and social practices. Evoking both the flows and hard work of creating closure and stability, much like Arjun Appadurai's (1996) famous 'scapes', Ingold's (2000: 194–201) 'taskscape' points to patterns of dwelling and, I would add, to patterns of 'seafaring' and their temporalities.

Notwithstanding the environmental harm done in the SCS, it would be too simple to blame fishers for the destruction of the coral reef, despite intimations in the 2016 ruling by the PCA. What is barely articulated in the Tribunal's verdict is that after the state enclosed and nationalized the sea spaces, the relation of fishers with the disputed reefs that constituted their historical fishing waters was subsumed under an entirely new environmental logic. This new territorial demarcation constituted a tectonic shift that transferred fishing grounds from fishers to the state and transformed these grounds in the process, thereby alienating fishers from their sea-borne and sea-oriented livelihoods. The *places* fishers and their forefathers knew through fishing engagements were destined to be buried under sand and concrete to become unfamiliar territory. The extraction of giant clamshells by fishers enabled Beijing to *vernacularize* its claim to sovereignty over this territory-in-the-making, but the production of giant clamshell artwork enabled the fishers to memorialize their role in the SCS in a way the state did not foresee but nonetheless temporarily accepted as it pursued its own maritime agenda. 'Thinking terrain *as* place' (Peters, 2021: 197) demonstrates an important point, namely that the fishers themselves can both play into and transcend state territorial claims by using their own tactics and engaging in their own deal-making. In this sense, territory is not only economic, legal, technical and strategic control, but also *vernacular* practice through which universalizing discourses— whether on the EEZ regime, sovereignty or nature—are adapted and modified.

Conclusion: beyond state-led environmentalism

This article demonstrates that Tanmen's fishers have been drawn into debates regarding the territorial and environmental visions of the SCS through state subsidies given to them to build large fishing trawlers and to 'develop the ocean'. In the process, fishers were forced to turn away from their 'backward' technological past towards the economically more 'viable' steel-hulled trawlers, in line with China's civilizational and ecological advances. However hopeful and promising this might look to fishers, it is a shaky route that is based on environmental harm. Fishers' knowledge and skills have been selectively and strategically exploited and repositioned in China's emerging model of environmental governance and its vision of 'ecological civilization', extending now to maritime spaces. By reconceptualizing and treating the sea as territory, the state turns the oceans into a political technology predicated on universalizing, authoritative knowledge and through which it controls the relation of the local population with marine resources, while simultaneously projecting itself as modernizer and protector of the environment (see Gregory, 1994; Elden, 2013). In this sense, the presence and massive extraction of giant clamshells by Chinese fishers in the disputed archipelagos generated an economically viable national territory that is consistent with the state's geographical, geopolitical and sociotechnical imaginaries as a 'maritime civilization'. For a fleeting moment, fishers were incorporated into a state development project in which they hoped to participate in an unrestricted and unlimited manner that was consistent with the way they envisioned themselves.

Yet, the vision of China as an 'ecological' and 'maritime' civilization required a different kind of temporality than fishers anticipated. As Stephan Feuchtwang and Michael Rowlands (Feuchtwang & Rowlands, 2019: 178) show, it is a 'temporality of the narration of Chinese civilization as the story of a people and its advance into future modernity—a future oriented project' that requires 'a break from the past even while selecting certain features from the long history of civilization'. Jasanoff (2015: 6) persuasively argues that when the 'observed facts of nature' are rationalized through society's desires, they produce different and often conflicting representations of 'how the world works—as well as how it should work'. In this article, I have shown that constructing and construing the SCS is not a work of a singular entity with a shared agenda but rather involves disparate officials, communities, businesses—as 'key protagonists' that produce unexpected outcomes (Gururani & Vandergeest, 2014: 350). Also, the recent legal regime of the 200 nautical mile EEZ creates delimitation problems when states are geographically close. Even though the EEZ does not constitute a sovereign claim, China's extreme land reclamation in the SCS expands its maritime ambition while disregarding other states' EEZ claims. The story of fossilized giant clamshells illustrates that state-led environmentalism might be used to sanitize the territorialization of marine spaces by 'civilizational' crack-down campaigns on destructive marine harvesting that were used precisely to produce such territory. The transformation of coral reefs into artificial islands, military bases, and urban spaces with green lawns demonstrates how profoundly terrestrial the state's imaginary is in its logic to turn the sea literally into land. In this process, it is possible to imagine the ocean as a space of civilizational progress through the application of technology rather than of human and ecological limits. Yet, in an unexpected twist, fishers' transformation of coral reefs into giant clamshell artwork also shows that we need to think about the ocean as a space of vernacularized political claims beyond state-led environmentalism.

Acknowledgements

Endnotes

1 Fieldwork in 2015 was complemented with a one-month follow-up visit in 2019. All interviews were conducted in Mandarin, and all names of informants in this article are pseudonymized.

2 *The South China Sea Arbitration (The Republic of Philippines v. The People's Republic of China)*, PCA Case No. 2013−19, Award of 12 July 2016, para. 922. Available at: https://www.pcacases.com/web/view/7 (accessed 26 June 2021).

3 For the connection between different fishing and trading groups in the South China Sea and beyond, see Sutherland (2021).

4 The United Nations (UN) Conference on the Law of the Sea (UNCLOS) refers to the events that resulted in the 1982 Law of the Sea Convention (LOSC). Therefore, it is more correct to use LOSC rather than UNCLOS when referring to the most comprehensive international treaty ever signed.

5 LOSC, Article 121, para 3. Available at: https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf (accessed 26 November 2021).

6 *The South China Sea Arbitration (The Republic of Philippines v. The People's Republic of China)*, PCA Case No. 2013−19, Award of 12 July 2016, para. 817. Available at: https://www.pcacases.com/web/view/7 (accessed 26 June 2021).

7 *The South China Sea Arbitration (The Republic of Philippines v. The People's Republic of China)*, PCA Case No. 2013−19, Award of 12 July 2016, para. 851. Available at: https://www.pcacases.com/web/view/7 (accessed 26 June 2021).

8 *The South China Sea Arbitration (The Republic of Philippines v. The People's Republic of China)*, PCA Case No. 2013−19, Award of 12 July 2016, para. 848. Available at: https://www.pcacases.com/web/view/7 (accessed 26 June 2021).

9 *The South China Sea Arbitration (The Republic of Philippines v. The People's Republic of China)*, PCA Case No. 2013−19, Award of 12 July 2016, para. 848. Available at: https://www.pcacases.com/web/view/7 (accessed 26 June 2021).

10 *The South China Sea Arbitration (The Republic of Philippines v. The People's Republic of China)*, PCA Case No. 2013−19, Award of 12 July 2016, para. 965. Available at: https://www.pcacases.com/web/view/7 (accessed 26 June 2021).

11 *The South China Sea Arbitration (The Republic of Philippines v. The People's Republic of China)*, PCA Case No. 2013−19, Award of 12 July 2016, para. 922. Available at: https://www.pcacases.com/web/view/7 (accessed 26 June 2021).

12 *The South China Sea Arbitration (The Republic of Philippines v. The People's Republic of China)*, PCA Case No. 2013−19, Award of 12 July 2016, para. 922. Available at: https://www.pcacases.com/web/view/7 (accessed 26 June 2021).

13 *The South China Sea Arbitration (The Republic of Philippines v. The People's Republic of China)*, PCA Case No. 2013−19, Award of 12 July 2016, para. 923. Available at: https://www.pcacases.com/web/view/7 (accessed 26 June 2021).

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