Making a network of patches, gaps, and spaces: marine and coastal governance in Stilbaai, South Africa

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Abstract
Based on research conducted by myself and colleagues as part of the Southern Cape Interdisciplinary Fisheries Research Project, I present an overview of residents’ perspectives on the Stilbaai Marine Protected Area, located on the Southern Cape coast of South Africa. Currently, South Africa’s marine governance sector is often fraught with politicking, inefficiencies, and other effects that strain the social-ecological system. This research shows that despite some fragmentation of governance, there are opportunities, and a general willingness, to engage in activities that take care of the local environment on the behalf of residents, that serve to educate about ocean-positive behaviours and engage visitors more meaningfully on the benefits and value of the Stilbaai Marine Protected Area. Problems that residents perceive to be associated with the Marine Protected Area are noted, and suggestions are made to enhance a sense of caretaking, or sorgskap, within the community to fill the gaps of certain governance or regulation inadequacies. Indeed, I argue that in lieu of efficient formal governance structures and collaborations, it is the informal characteristic of caretaking activities by the community that renders these activities more sustainable, long term, and effective in building a “culture” of caretaking.

Keywords Coastal sustainability · Marine governance · Stewardship · Relationality · Care · Marine Protected Areas

Introduction

As part of the Southern Cape Interdisciplinary Fisheries Research project (SCIFR 2021), I spent a total of 3 weeks in Stilbaai over 5 months (September 2018 to January 2019) investigating the perspectives of residents towards the Stilbaai Marine Protected Area (SMPA). This period of ethnographic fieldwork built on my 15 years of research experience in the Western Cape fisheries sector, including a month spent in Stilbaai during my doctoral research on marine fisheries law enforcement in the inshore sectors.

The context of my research over the last 15 years has, unfortunately, been the increasing dysfunction of some of the main institutions that are legally mandated to manage and protect South Africa’s marine and coastal resources and the lives/livelihoods that are entwined with them (Sowman 2011; Norton 2014; Jarre et al. 2018; Isaacs and Witbooi 2019).

The social and ecological strains I reference above are, primarily, climate change, environmental stressors, overfishing, poaching, poverty, inequality, and the COVID-19 pandemic. These have contributed to what is currently a desperate situation for many small-scale fishers and coastal communities around the world (Jentoft et al. 2022; Mbatha 2021). In coastal South Africa, these stressors are exacerbated by the governance failures referred to above. In the short term, it is the small-scale fishing sector that is currently bearing the economic and social brunt of the dire situation, given the immediacy of needs in this sector. In the longer term, problems already noted—such as climate change and its variable impacts—will increasingly disrupt the larger social-ecological system of the Southern Cape coast (Cooper et al. 2014; Duggan et al. 2020; Lyttle et al. 2021; Ward et al. 2021).

Due to these factors, investigating governance in certain coastal spaces becomes tricky; where tracking what is actually happening is also a tracing-by-absence of what is supposed to be happening, amidst a number of change events and processes. However, in this paper, I do not focus on detailing the many problems relating to governance and compliance in the Southern Cape coastal space. Instead, I
discuss processes or activities on the local scale that represent possibilities for “amplifying stewardship” or, in Afrikaans,1 “om sorgskap te bevorder” (to develop/nurture a sense of taking care), through my research into the role of the Stilbaai Marine Protected Area in the daily lives of Stilbaai residents.

While sorg in Afrikaans refers to care, and sorgskap to caretaking, in conservation literature, the concept is more often framed as “stewardship,” with care being one dimension of the framework that Enqvist et al. (2018) develop to understand the many different uses of that term. Enqvist et al. illustrate stewardship as a result or function of relational thinking that draws together the core concepts of “care, knowledge and agency,” incorporating human and more-than-human relationships with each other and their environment in a reciprocal engagement (2018:32). Using this lens to discuss environmentally minded practices in Stilbaai, this frames my own personal conception of stewardship as “ethical,” in that I describe it as an “obligation to take care” (Enqvist et al. 2018:19). My experiences have led me to adopt a particular position in relation to my work in and on the coastal space, which can be described as biased towards social-ecological justice: an ecological ethical position that seeks to de-centre the human as the primary concern and look instead to foreground the intrinsic values of the social and ecological (Washington 2020). Within the context of failing state service provision on multiple levels and persistent apartheid-era social artefacts (such as segregated communities and exclusion from economic opportunity, discussed further below), there is a need for those in positions of material and social privilege to support protection of the local social and ecological systems that are under increasing strain, by taking care of the systems that they find themselves in. This is in particularly relevant in situations in which such privilege allows some to experience the benefits of the social and ecological systems in question, while excluding others by design or default.

Enqvist et al. (2018:23) use the concept of stewardship as a boundary object, that “represents a ‘shared space’ where different (inter-)disciplinary perspectives overlap and interact.” What I attempt in this paper is to use the Stilbaai Marine Protected Area as a boundary object, where multiple perspective overlap and interact, to understand what people are motivated to care for, and what knowledge might motivate them to enact that care as sorgskap.

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1 According to the most recently published census data (Statssa 2011), just under 50% of residents in the Western Cape claim Afrikaans as their first language (followed by isiXhosa and then English), with Stilbaai at 85% first language Afrikaans speakers.

2 In South Africa, the term “linefish” refers to fish that are able to be caught by handline from a boat or the shore (though there are other means of catching them also).
This has resulted in the present situation in which the settlements retain distinct profiles. Stilbaai is a well-resourced town in a prime location, with many properties reserved as holiday-homes (and thus empty for much of the year), with an overwhelmingly white population. Melkhoutfontein, in comparison, is an under-serviced and -developed community at a physical remove from both the ocean and river. It is the site of both formal and informal housing developments, with residents being almost exclusively people of colour (at 96%, according to Census 2011).

In this context, the Stilbaai Marine Protected Area was declared in October 2008, 14 years after South Africa’s first democratic elections. The local history briefly outlined above is referred to in the Marine Protected Area Management plan:

The Stilbaai MPA possesses all the ecological features typical of the warm-temperate south coast: abundant inter-tidal life, a productive estuary, diverse offshore fisheries, and an abundance of cetaceans. It represents many of the problems too: a town centred on an estuary, an estuary starved of freshwater, displaced rural people, failed fisheries, transformation of traditional ways of life, and displacement by wealthy absentee landowners. (Du Toit and Attwood 2008:A1)

The SMPA is an interesting case for several reasons. Firstly, it consists of a variety of distinct habitats that function as a system; secondly, it is part of a local patchwork of protected areas that cut through and surround the adjacent human settlement; and thirdly, its existence is currently largely uncontested, making it distinct from a number of South Africa’s other MPAs, which are heavily contested by adjacent communities (Sowman and Sunde 2018; Mann-Lang et al. 2021).

Sowman and Sunde (2018) provide an overview of perceptions towards MPAs in several South African communities that had historically enjoyed access to the fishing grounds that were now protected. For example, they discuss the Tsitsikamma MPA and West Coast National Park, noting that they encountered “overwhelmingly” negative attitudes towards MPAs in their work (Sowman and Sunde 2018:172).

In the case of the SMPA, however, both Stilbaai and Melkhoutfontein residents are fairly accepting of its presence at this point in time, though there were some objections during the public participation process (Duggan 2012; Pers. Comm. Jean du Plessis and Colin Attwood, respectively). Amongst some of the objectors to the MPA were small-scale fishers from Melkhoutfontein, who wanted to retain access to the Geelkrans beach for angling (Gammage et al. 2017). However, the ongoing chaos of the Small Scale Fisheries Policy implementation means that their lack of permits or clarity on the allocation process, coupled with the recent scarcity of catchable fish, are currently their chief concerns. This is over and above however they may feel about the establishment of the now 14-year old SMPA, which did not come out as a primary concern in the most recent research conducted there (Gammage 2019).

There is also anecdotal evidence that fishers consider MPAs a good thing, as there is the assumption that it has created a local abundance of fish populations, as shared with me over the course of my research both in this space and in others (XXX 2008). This assumed abundance often leads to fishing directly on the Controlled and Restricted areas boundary by recreational and commercial fishers alike. This is “boundary fishing” behaviour that I have witnessed frequently for myself and was regularly told about by CapeNature employees, respondents, and local fisheries inspectors during decade I have visited the site (Norton 2014). This is when boats sit just on the legal side the MPA boundary, and cast towards it – thereby complying to the letter of the law, but still potentially benefitting from the MPA’s fish abundance.

While it is clear that the MPA certainly changed the way in which the marine resources in the area are accessed and regulated, the historical connection to the sea and viability of fishing as a subsistence livelihood had already been changed significantly, with most fishers from Melkhoutfontein working on commercial vessels from the harbour, or on the larger deep-sea vessels that operate from Mosselbay (Duggan 2012; Gammage 2019). For these fishers, the establishment of the SMPA did not affect their fishing grounds significantly, given that they were already adapted to fishing on banks further out to sea, on such boats could still “boundary fish” if they so chose. What it did change was the manner in which those immediately adjacent to the newly declared protected areas could do on their doorsteps, as it were, and therefore the relationship the town had to its immediate environment.

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3 Mr Jean du Plessis, Conservation Manager, CapeNature, Stilbaai; Prof Colin Attwood, Dept. of Biological Sciences, University of Cape Town (formerly Marine & Coastal Management, SA Dept. of Environmental Affairs and Tourism).

4 Ward (2022/Community Profiles Report).

5 https://www.dailymaverick.co.za/article/2021-11-21-south-africa-anfishing-policy-bait-is-not-landing-a-catch/

6 Restricted areas are “complete or specific section/s within a marine protected area also commonly known as ‘No-Take’ areas, which is where the extraction and harvesting of all marine and plant life is prohibited,” while controlled areas are “specific sections within a marine protected areas also known as ‘Open’ areas where you are allowed to extract and harvest marine life, on condition that you have a valid permit allowing you to practice one of the following specific activities: spear fishing, angling, scuba diving, snorkelling for mollusc extraction, boating, commercial diving, salvage operations, commercial fishing, whale watching, shark cage diving or filming.” From http://mpaforum.org.za/marine-protected-areas/
Methods

A central tenet of anthropology is summed up by the idea that there is a difference between what people say, do, and think they do (Descola 2016:323). To this end, the anthropological method of gathering ethnographic data relies on observing as much as interviewing. Furthermore, the observation cannot only be from a distance but must immerse the researcher in the circumstances that they are observing as much as possible for a fuller understanding of what the participants are experiencing to augment documentation of their thinking and observation of their behaviour (as even anthropologists cannot read thoughts). This is participant observation, often referred to as "deep hanging out" (Rosaldo 1994). To this end, I spent much time on the beach, either walking and sitting, approaching the spaces from different directions, or observing what I learnt from the space as if I were encountering it as a visitor or resident. It was on the beach, the riverbank, or at the harbour where I conducted my informal conversations with those willing to spend some time talking to me.

Within a general ethnographic approach, I used a mix of methods: online and hard-copy versions of the same survey, interviews of various modalities, and participant observation. I began my research in 2018 by launching an online survey into Stilbaai residents’ perspectives on the MPA. The survey was divided into three sections — one each for residents, new property owners, and visitors. The written surveys (online and hardcopy versions) expressly asked for written consent after an overview of the project and its intentions were stated.

I asked about what water-based or extractive activities the respondents partake in; about their knowledge around the reasons for establishing the MPA; their perspective on it; and how their knowledge of and feelings towards the SMPA compared to their knowledge and feelings towards the local terrestrial protected areas. For new property owners, there was the additional question of whether or not the SMPA influenced their purchase; for visitors (new and returning), the additional question was whether the SMPA had influenced their decision to visit. I distributed this survey using Survey Monkey and I marketed on the “I Love Stilbaai” Facebook page and via an email-based snowball-sampling process based on personal connections to residents, established over time through other visits (both research-oriented and personal).

I also made SCIFR-labelled “post-boxes” with hard copies of the survey that I placed at the municipal library and popular Tourism Bureau (that also includes a museum and tea garden). I had visited other sites, but these declined to host them, largely due to space issues. I eventually got 16 completed forms from these post-boxes, amongst about an equal number of partially completed ones. Both the online and hard-copy surveys were written in English, but respondents were encouraged to answer in Afrikaans if they preferred. The two ladies who work at the Tourism Bureau permanently, and have done so for many years, were eager to speak about the MPA and my research, providing a space for my surveys and “letterbox” amid their information and activity pamphlets and brochures. My surveys were left there for 2 months between November 2018 and January 2019 to be available during the busiest months for Stilbaai in terms of visitors.

In my subsequent visits to Stilbaai in November and December of 2018 and the first week of January 2019, I spent my time observing behaviour in and around the SMPA, conducting several interviews with members of local organisations. Additionally, I conducted 15 informal (but MPA-focused) short interviews with beach-goers that were useful in augmenting the perspectives of the formal interviewees. The formal interviews were organised ahead of time, over the phone, often with lengthy introductions to my work and what I would like to ask them, thereby giving the participants plenty of time to think of what to say.

The informal interviews were conducted ad hoc on the beaches and riverbanks with people engaging in activities in or immediately adjacent to the SMPA. While most people responded positively to my initial greeting, there was a general reluctance to conduct longer conversations. I surmise that this was largely due to being interrupted while engaging in leisure activities about a topic that they did not feel particularly strongly about, or about which they felt they had little information to offer. This was in itself interesting, as many indicated that they had holiday homes there, or came frequently, but perhaps did not have much information on, or strong opinions about, their immediate surroundings. It must be noted that those who chose to take the survey or speak to me were most likely those who were already interested in or concerned about the local environment, and therefore more likely to partake in caretaking activities (than those who chose not to take part in the survey interviews or chats). Therefore, the data gathered was likely biased towards those for whom stewardship was already a concern or activity (Table 1).

The organisations or businesses whose members I interviewed were: the Stilbaai Surf Club; Stilbaai Bewarings Trust (SBT); Ouma Lena se Huis; Gouritz Cluster Biosphere Reserve; CapeNature; National Sea Rescue

| Method                          | Responses/participant |
|--------------------------------|-----------------------|
| Online survey                  | 24                    |
| Hard-copy survey               | 16 Complete/8 incomplete |
| Informal interview             | 15                    |
| Formal interviews (excluding talks with CapeNature employees) | 11 |

Table 1  List of surveys and interviews and number of responses

The organisations or businesses whose members I interviewed were: the Stilbaai Surf Club; Stilbaai Bewarings Trust (SBT); Ouma Lena se Huis; Gouritz Cluster Biosphere Reserve; CapeNature; National Sea Rescue.
Institute (NSRI); the yet-to-be formalised Stilbaai Beach Clean-up; the Tourism Bureau; and the Stilbaai Municipal Library. These individuals and organisations were chosen for a variety of reasons. For some, the reasons were based on their organisations outdoor activities that either had a conservation focus and/or took place in or around the SMPA (the surf club, the SBT, NSRI, the beach clean-up organiser). The staff who work at the Tourism Bureau were interviewed for their regular interaction with visitors to Stilbaai and their historical knowledge of the town before and during the establishment of the SMPA. The two senior managers at Ouma Lena se Huis, an early childhood and social development NGO in Melkhoutfontein, were interviewed to learn more about how the youth of Melkhoutfontein view the SMPA and what kind of conservation-focused activities are organised by or involved Melkhoutfontein community members.

Neither the formal nor informal interviews were recorded, or were recorded successfully: most participants did not want to be recorded, some of the environments were too noisy, and some recordings were disrupted by background sound to the point of being unusable. All interviews were accompanied by extensive note-taking, which was then checked by researcher with the participant at the time (Table 2).

These interviews would begin with questions similar to those set in the surveys: asking the respondents about what they thought of the SMPA; what they knew of it; how they interacted with the space; what they considered the advantages and disadvantages of it; what they perceived as positive or negative behaviour towards it; and how they would characterise their interactions with it. The interviews were more conversational than formal, and would inevitably branch out to discuss what conservation-oriented activities the respondents were personally involved in, and what further possible activities they could see as having a positive impact on the relationship between residents and their immediate natural environment.

I intended also to interview the fishers of Melkhoutfontein, to understand their perspectives on the SMPA. However, due to the number of factors (general frustration with the slow implementation of the Small Scale Fisheries Policy, the need to work, research fatigue amongst some of the fishers), there was a reluctance on behalf of the individuals I was in contact with, to engage in my research, especially when previous research has already questioned them on their relationship with the SMPA (Hobday et al. 2016; Aswani et al. 2018; Martins et al. 2019). Given the legislated segregation of the community of Melkhoutfontein during apartheid, the ongoing separation of the community from the immediate coastal space (both physically and through fishing regulations), and their current prioritisation of fishing permits as the most pressing concern, I considered that the emotional and physical labour of taking a stewardship role towards the system from which many of them are effectively excluded, a request I could not make of them from my privileged position. I decided to instead focus on the demographic who, to varying degrees, take their proximity and access to the SMPA for granted (with no judgement being expressed for this attitude, from my side). This is not to say that there are not activities or attitudes of stewardship towards the SMPA amongst the residents of Melkhoutfontein, only that I made a particular choice with regard to my framing of who could be argued as having responsibilities concomitant to their levels of access.

Much of the research was done as a “desk-top” study, by engaging the results from these previous bodies of research related to Stilbaai: dissertations (Kemp 2007; Duggan 2012, 2018; Gammage 2019; Ward 2018); articles (De Vos et al. 2014; Gammage et al. 2017; Aswani et al. 2018); and survey results (Martins et al. 2019). In addition, literature on the ecological status of the SMPA and Goukou estuary (CSIR 2011; Tunley 2009) and the establishment of the SMPA (du Toit and Attwood 2008) was also engaged with to understand the ecological functions and processes of the system (river, estuary,

| Department of Forestry, Fisheries and Environment | Fisheries Branch | Hessequa and Stilbaai Municipality | Cape Nature |
|--------------------------------------------------|------------------|-----------------------------------|-------------|
| Department of Water and Sanitation               | Gouritz Cluster Biosphere Research | National Sea Rescue Institute | Goukou Protected Areas Advisory Committee |
| Stilbaai Bewarings Trust                         | Goukou River Property Owners’ Association | Stilbaai Belange Forum | Tourism Bureau |
| Ouma Lena se Huis                                | Stilbaai Municipal Library | Stilbaai Beach Clean-up | Stilbaai Surf Club |

Table 2 List of organisations with whose member interviews were conducted for the present study. Orange indicates government departments or branches, municipalities, or organisations working under a government mandate; green indicates local interest groups; and blue indicates local formal and informal organisations that were interviewed for either their direct involvement in tourism, outdoor activities, or their long-term experience of Stilbaai.
and marine environment) and the anthropogenic impacts on these that have been documented or are predicted. Grey literature, such as the pamphlets in the Tourism Bureau or blogs on the topic of Stilbaai, or books published by local authors, was consulted but these rarely spoke about SMPA beyond references to its physical beauty or abundance of marine fauna. The website for South Africa’s Marine Protected Areas (https://www.marineprotectedareas.org.za) features an entry for each of the country’s 42 declared MPAs. The entry for Stilbaai is short, and refers to several of the well-documented features of the area, which were main points of conversation in my research and discussed further below.

The anthropological analysis of ethnographic data is often referred to as grounded theory (Glaser and Strauss 1967) or inductive, where, in essence, data is collected and then the analysis asks, “What is going on?”. I proceeded as a first step to see how the questions were answered — what did the participant say, and how do these responses answer the research objectives? Secondly, I sought patterns in the way that individuals and groups respond, not only in terms of content but also manner of engagement — particularly related to the questions of: who cares, what is the basis of that care, and do they act on that care? Next, this was compared to observations recorded through conducted participant observation, to see where the discrepancies and correspondences between observation and responses might be.

Results

General attitudes towards the SMPA

A significant feature of Stilbaai’s relationship to the SMPA is that the town is surrounded by protected areas — the sea, Geelkrans and Pauline Bohnen nature reserves, the Goukou River, and the beaches, Skulpiesbaai (Fig. 1). However, unlike other towns that are adjacent to protected areas, in Stilbaai, the many types of protected areas lie next to it, around it, and run through it. Despite the cartographic delineations of categories of space, Stilbaai is arguably part of the MPA for all intents and purposes, as there are no hard boundaries or borders — even the waterscapes of the sea and river cannot be said to be contained or unchanging (Fig. 2).

The centrality of the MPA to the community means that residents enjoy a wide range of benefits from it, even if they do not actively engage in outdoor activities or are conscious of such benefits. Examples of such benefits of living surrounded by the river and ocean include, amongst others: climate regulation; opportunities for fishing or outdoor activities; erosion control; and economic benefits, for example, tourism-derived income or increased prices for river- or seafront properties (Barbier et al. 2011). Recent research also suggests significant physical and mental well-being benefits associated with spending time in, on, or near nature (Bratman et al. 2019), and specifically the sea (Denton and Aranda 2019; Washington 2020). The variety of activities that engage the space are mainly walking (including bird-watching), swimming, kayaking, boating, fishing (including bait-collecting), diving, surfing, and kite-surfing (derived from observations and responses).

The main tendencies in responses concerned residents’ experiences of well-being in relation to the SMPA; the contrast between the perceived importance of the terrestrial reserves and river/estuary as opposed to the perceived lesser importance of the marine section; the presence of voluntary caretaking habits; and the lack of knowledge amongst visitors with regard to the reasons for and value of the SMPA. However, most respondents generally understand the reason
for its creation — voiced in a variety of ways, but all touching on its role in preserving habitat for important species and ecological functions (such as the estuary serving as a nursery or breeding ground).

Residents appreciate the river and beaches, and express that these natural features add to their well-being through providing spaces for being outdoors, taking exercise, enjoying nature, and interacting with nature (often with a spiritual or religious element that can be understood in the respondents’ Christian perspective as communing with God or “appreciating His creation”). The natural features of the town are for many one of the main reasons for moving or retiring here. However, with the construction and development boom that the town is experiencing, the pressure on these natural features is mounting and what draws new residents and visitors there is what will suffer the most as the population pressure grows. Specific examples of the increased development can be seen in Stilbaai Oos, on the hills and along the beachfront, the residential development above Skulpiesbaai, and in the Stilbaai Hoogte (Heights) above the town’s business centre.

**Differing perspectives on the marine section compared to other areas**

Residents feel less strongly about the marine section of the MPA than about the river or Skulpiesbaai, though across the groups engaged with most respondents did say the marine section was good thing even if it did not feature strongly in their lives. This indicates that respondents think differently about the river, estuary, and Geelkrans Nature Reserve than about the marine section of the MPA, which is backed up by several respondents (surveys and interviews) that noted that the MPA is an abstract concept in a lot of ways as most people do not “go there.” Several respondents, both in formal and informal interviews, referred to the marine section in such language that signalled they regard it as a different place or at a physical remove: “out there,” “at sea.” Respondents clearly indicate that the no-take MPA is seen as a separate area, even though it is just a differently managed part of the overall protected area. This means that the idea of the catchment area, river, estuary, beaches, and MPA being an integrated system is not prominent or part of their experiences.

When I returned to retrieve the letterbox from the Tourism Bureau in January 2019, I found it empty. The staff at the Bureau expressed dismay but said that they were not surprised, since it was mostly visitors who came to get pamphlets/brochures. Their inference, when questioned further on this, was that visitors are not that interested in the SMPA as most do not have the gear to access it (e.g. a boat), and so would have no reason to fill out surveys. In response to my queries about how often they are asked about the SMPA, one of the ladies said never, and the other indicated that she had probably only been asked a few times over the last decade. She said that when asked, the questions were largely focused on what activities were allowed or available, and she would give them an official (DEA/CapeNature) information brochure to learn more about the features and regulations.

The areas where limited fishing is allowed are managed by CapeNature and the local Marine Compliance office, staffed by Marine Compliance Inspectors of the Fisheries...
Branch’s Compliance Directorate. Additionally, some of the responsibility for managing the riparian areas of the Goukou River is the responsibility of the Stilbaai Municipality. Effectively, however, the day-to-day management of the MPA is largely done by the local contingent of CapeNature officials, who also manage the Geelkrans Nature Reserve (as well as other areas outside the immediate area with which this study is concerned).

The municipal department or agents responsible for monitoring part of the river’s edge (such as checking that the public are not walking their dogs off leads, littering, or taking bait from closed areas) do not conduct their inspections or enforcement activities as regularly as the CapeNature officials. Additionally, the local Fisheries Branch Compliance Office is only staffed by two inspectors, and their jurisdiction also includes adjacent areas such as Jongensfontein and Gouritzmond (15 km and 56 km distant, respectively). Operational budget deficits limit their ability to work overtime or on weekends, and they do not have access to patrol vessels, and so “the slack is picked up” by CapeNature (according to CN officials). CapeNature tends to do all compliance work over weekends and after-hours, as necessary.

The survey results and interviews led me to conclude that while the residents of Stilbaai felt a particular affinity with the river and the beach, they were largely indifferent towards the MPA, which they consider separate. Such a strong differentiation between the beach and the MPA was surprising. Most visitors I spoke to regard the environment around Stilbaai as beautiful but are unaware of the reasons for or significance of the MPA. Many visitors come from non-coastal areas, and Stilbaai represents a large part of their experience of the South African coast and the ocean, especially in the case of children. Often, largely out of ignorance, such visitors will partake in harmful activities, which I have frequently encountered in my research over the last 13 years, on beaches, slipways, and breakwaters all along the Western Cape coast (XXX 2020). While many visitors do know that there is an MPA, their experience of it is confined to the river, estuary, and beaches, and so they express indifference towards the marine section. However, they comment on the beauty of the town and its surroundings and the generally pristine appearance of the beaches — as noted above, despite not being particularly concerned or engaged with the MPA, the benefits of its existence are still felt.

**Concerns regarding non-compliance**

Respondents did note some problems related to the SMPA. Several issues related to misbehaviour or perceived misbehaviour were noted. While some of these were incorrect, in that they were based on misinformation, ignorance, or assumption, they are important to note and engage with as such perceptions are likely to exist for a reason and can potentially determine behaviour.

I was often asked if private citizens could be deputised to perform non-compliance functions, such as making citizen arrests, so there is certainly an element of the community that are vigilant concerning non-compliance and are keen to act to prevent or react to it. It remained unclear whether this was due to stewardship, or a desire to have some power over others in what they considered their environment, or a combination of the two. However, based on the examples of what respondents considered non-compliance and the subject matter of concerned phone calls made to the local CapeNature office chief, it is also important to note that often the behaviour being reported is actually legal (XXX 2020).

Therefore, it can be inferred that even amongst aware and vigilant residents, what is legal and what is not is not always known or clear. Certain comments made during my many visits to Stilbaai indicate that a factor may be who is performing the action that draws the attention of residents.

This also relates to what many respondents had to say about oyster collecting in the area, as the collectors are not from Stilbaai, and are therefore unknown people of colour. This issue of oyster harvesting along the shore was a cross-over concern (i.e. mentioned across the age, gender, race, and activity range). It indicates, too, that there is a sense of who belongs and who does not, which is unfortunately sometimes skewed in terms of race and activity.

Many respondents complained about the oyster collectors that they witnessed passing through. However, there are individuals who do hold permits for collecting oysters along parts of the shoreline, and CapeNature and the Fisheries Branch monitor these activities. People voiced the assumptions that these persons were taking out too many and carelessly inflicting excessive damage on the rocks. Though they may appear to be destructive to the immediate environment (breaking shellfish off with crowbars), often, their activities are not violating any permit regulations. Again, the idea of belonging seems to be an underlying determinant for such judgements.

One complaint that was echoed by 3 Stilbaai residents was about the picnic area and how it is “abused” (misbruik), with littering as the main charge. I noted in my observations that the families making use of the riverside area under question were almost always families of colour, and so here the idea of stewardship is conflated with the idea of exclusion.

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7 Previously of the Department of Agriculture, Forestry and Fisheries, but as of 2019, part of the Department of Environment, Forestry and Fisheries.
While there is certainly a level of non-compliance along this coast (as communicated to me during conversations with CapeNature officials during this research and by Fisheries Branch inspectors during my doctoral research), this is at much lower levels of amount, frequency, and violence than other sections of coast (Norton 2014, 2015). The issue of “boundary fishing” on the edge of the MPA was also mentioned by the CapeNature and Fisheries Branch personnel. This is despite the boundary line not being located on a particularly productive part of the MPA, meaning that assumptions of such abundance are not accurate. This part of the MPA is a sandy ledge, as opposed to the rocky shelf that dominates the rest of it (wherein fish and their food sources grow, shelter, and/or feed). Even with fishers then, it appears that there is a lack of knowledge with regard to the ecosystems functioning of the MPA.

From the research, it is clear that there are certain activities or areas that residents consider to be under-policed and others that are deemed over-policed. The determination of these two, once again, differed according to who is speaking. For example, of those respondents who indicated they engage in recreational fishing, several noted that speedboats on the river and illegal fishing in the MPA were problems. From the set of older respondents who largely engage in MPA through the act of walking either the beaches or the river’s edge (and not fishing), the complaints most frequently noted were the degradation caused by what they consider to be excessive bait collections on the tidal flats of the eastern bank, and littering.

Through conversations with CapeNature officials, my own earlier observations (Norton 2014), and during this most recent research, there is an acknowledgement that some non-compliance in fishing occurs (Norton 2020). Such behaviour includes catching protected species, extractive behaviours in the no-take zone, and exceeding bag limits (especially for bait). However, despite what some respondents thought, between CapeNature and the Fisheries Branch inspectors, it is largely under control. This may be due to a lack of particularly lucrative species such as abalone or rock lobster, but it is encountered — in particular, with transgressions into the MPA by vessels, or when alikreukel§ exposed by low spring-tides and a kind of “free-for-all” collection occurs.

Bait collecting was raised regularly as an area of concern, particularly the pumping of sand prawns on the tidal flats on the east bank of the river. Based on my observations and the anecdotes shared by several respondents, the tendency to pump more than necessary is fairly common (XXX). Though the bait limit is 50 sand prawns, people often pump many more than that and select only the best ones, leaving the rest of the sand prawns and any other life that has been dug up, to die. While the most common pump is made out of the conventional PVC pipe usually used for gutter downpipes, people often make their own pumps. I have seen several examples exceeding this fairly standard size, including some constructed out of big buckets, which means huge holes get dug in the mud. During busy times, whole sections of riverbank are churned up after a couple of people have pumped their way across it.

This corroborates the known fact in environmental governance that there is no such thing as 100% compliance in any commercial, small-scale, or recreational sector (Norton 2014). Therefore, while there is fragmentation, and certain governance structures or processes that could be made more efficient and/or transparent, the system is functional (though, of course, capacity and funding could always be increased to the benefit of the social-ecology). What is also points to, is the need for caution in promoting stewardship in spaces where it may become a means of exclusion, especially when the nature of the local society is already divided in terms of who is considered as belonging. Bluntly put, it must be guarded against a means of enacting racialised profiling.

**Relations with local species**

Already, there are several iconic species or sites relating to the marine environment for which Stilbaai is famous, or for which the resident respondents expressed pride: the whales; the hammerhead sharks; the eels at the Palinggat; the viswywers§ and Skulpiesbaai; the regular/resident seal; Preekstoel beach; and the area’s relation and proximity to the globally archaeologically significant site of Blombos Cave. At the Skulpiesbaai parking lot, for example, there is a great information board on the ecology of rocky shores, but no information on the viswywers or on the protected area status of the beach (and what the red/white striped poles on the beach mean). The viswywers are an exceptional example of a livelihood practice that dates back to the Stone Age (Kemp 2007). They should be leveraged for building a sense of history and place — importantly, this process will also pay greater homage to the original inhabitants of the area and their descendants. While there is certainly the issue of the maintenance of the fish traps and how such labour should be remunerated, their historical significance and future value (as a place of interest and learning) cannot be over-emphasised. As Gammage (2019) and Gammage et al. (2021) discuss, there is potential for it to be a tourism or fishery-related livelihood activity for the soon-to-be-formed Melkhoutfontein

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§ Viswywers are Stone Age tidal fish traps, created by packing rocks in a carefully determined manner, to create pools in which fish are trapped at low tide. There is evidence of such harvesting in several places on the southern Cape coast, with those in Stilbaai and Arniston (to the west) being the most well-preserved and prominent.

§ Periwinkle snails, part of the regional seafood tradition.
small-scale fishers’ cooperative. Such opportunities potentially include remuneration for maintenance, sustainable extraction of certain species, and paid tours and/or talks.

The Tourism Bureau, located in the historic Palinggat homestead in Stilbaai, is a vital node in the local network of organisations. It contains the tourist information centre, the small Stilbaai museum, and the famous Palinggat, where freshwater eels are fed by hand every day at 11:00. Here, a clear sense of place and history are combined with an iconic species. It is one of the few activities (besides the river-, beach-, or sea-based activities already noted) that is mentioned on “what to do in Stilbaai” lists that one comes across on the Internet. Observing the enthusiasm with which children and adult visitors engage in the feeding and watching of eels is a clear indication of how valuable this space is in capturing a sense of wonder in relation to the local environment. Furthermore, the historical photos of the development of the town and the displays on the Blombos excavations amplify the sense of place and history — but could be updated and built on.

**Signage**

The issue of signboards was brought up in the online and physical surveys, as well as in conversation with the staff at the Information Bureau, by the chairperson of the Conservation Committee (Bewareings Vereeniging) and with persons on the beach or riverside paths. This echoes the mention made in the 2009 Marine Protected Areas State of Management Report: “Signage could be improved by providing bold illustrations of do’s and don’ts and indicating the position of the reader on the map” (Tunley 2009:91), and in the management plan for the MPA, where they are noted as being an effective means of regulating behaviour through the dissemination of information (Du Toit and Attwood 2008: F2). This latter assumption certainly speaks to the knowledge in the trilemma of stewardship motivations that Enqvist et al. (2018) suggest, but it assumes that such information alone (standing at the edge of the beach) will be sufficient for care, and action based on that care. However, if that were the case, then the issue of coastal sustainability would be a much less wicked problem to address.

At Skulpiesbaai, which is a restricted zone and the site of the ancient *viswywers* (Kemp 2007; discussed below), the signboard at the parking lot did not contain any information about the MPA, but focused on providing information about the type of ecology that the beach typified. At the lookout point above the harbour/river mouth, the information board about whales was recently replaced with a new one, also about whales.

The main issue raised about the SMPA information boards was that they are not very engaging, and do not contain information on species found within or value of the MPA. However, they have a map of the protected areas in question, and a list of GPS coordinates that describe the perimeters of the larger and internal areas. They also have an extensive list of regulations, printed in fairly small font. Currently, only the “fun” eels and the charismatic whales have any real information provided to the public (recently, the whale information board was replaced at the lookout above the harbour).

The other two concerns regarding the signboards were that they were no longer in very good condition, with several degraded by the elements to the point where some important information was obscured (which I verified for myself). Their placement also seems to assume that everyone will be arriving in the space by car — for example, there is a signboard at the Preekstoel beach parking lot (Stilbaai Oos), which one would not see if walking along the beach to that point. Other markers related the MPA are the red-and-white striped poles that designate boundaries, and the sign between the restricted and controlled zones that mark the end of the “fishing-allowed” beach. With regard to the boundary markers, only two people brought these up to me without prompting, complaining that they were hard to see and that many people did not know what they were.

The signboards lack any form of information or engagement aimed at non-extractive resource users. The engagement is currently premised on technical knowledge (GPS coordinates) and rules about what not to do. This does not foster a relationship of interest, and presents the MPA as a place where activities are regulated, not a treasure trove of biodiversity and/or beauty. Furthermore, its text-heavy nature and the height at which the boards are erected mean that there is nothing to engage the youth, particularly small children. Though there is a concern for the potential “visual pollution” that could be caused by an excess of boards along the river or beaches, there is, I believe, a strong case to be made about the links between visual stimulation, learning, and intergenerational stewardship. We should be looking at getting people excited about the MPA, in terms of the value that it can does add to their life or beach visit. The intergenerational aspect, the fact that attitudes and values change over time and from one generation to the next, is a “slow” social variable that must be considered when maintaining concern for the ecology (Tam et al. 2018).

**Other issues raised**

Due to the recent growth in Stilbaai, it was noted in several of the surveys and interviews that there has been concomitant increase in the numbers of dogs that are walked along the beach and on the riverbank. One concern was that there could be a potential for increased incidents between humans and dogs, but that is not the concern here. What is, is that many of the dogs who are walked through the protected
areas are done so off the lead. The main concerns expressed here were: that the dogs were chasing small animals and birds; the accumulation of faeces on footpaths, beaches and potentially in the water (which could, in turn, lead to accumulation of enterococci in the sand (Wright et al. 2009)); and that dogs were digging after fauna or in areas potentially sensitive to such disturbance (as I observed myself on two occasions). Littering was another regularly mentioned issue, and my own observations confirmed that there is plenty in certain areas, apart from the ocean-borne rubbish that is washed up on the beach. Generally, when blame was ascribed for litter on the beach, it was to either visitors to the beach (i.e. not residents but holidaymakers) or to “the Chinese boats” (referring to the assumption that illegal Chinese fishing boats were dumping the rubbish at sea). Litter on the riverbank is generally less, except for areas where braai facilities are available and the car park by the municipal jetty. Concern was expressed, by some survey responses and the member of the NSRI, that the increase in residents and/or visitors would result in many more craft on the river (kite-surfers, kayaks and motorised vessels) and that this would endanger swimmers. In a system as dynamic as an estuary, there is the expectation that the rivermouth and adjacent beaches will undergo changes over time. Many respondents did not mention this, but those that brought it up were very clear that they had noticed significant changes to river mouth in terms of size and depth, as well as the increase in the size of some sand-banks upstream (with mention made of the recent drought and decreased freshwater flow in the river having been some of the reasons for this). It is not known what effect this would have on the SMPA itself. Still, it is certainly likely that local catadromous fish species (White Steenbras, Kob) or migratory species, such as the eels or paling resident at the Tourism Bureau, would be affected (Du Toit and Attwood 2008; Lambeth and Turpie 2003). Other issues that were raised not only by one or two respondents but also by a member of Cape Nature and the local conversation committee included issues related to land-owners actions. Insufficiently regulated abstraction of water by users upriver (in the catchment) and with riparian properties in the protected area (CSIR 2011; see also Ward 2018) means that the increase in residents and/or visitors would result in many more craft on the river (kite-surfers, kayaks and motorised vessels) and that this would endanger swimmers. In a system as dynamic as an estuary, there is the expectation that the rivermouth and adjacent beaches will undergo changes over time. Many respondents did not mention this, but those that brought it up were very clear that they had noticed significant changes to river mouth in terms of size and depth, as well as the increase in the size of some sand-banks upstream (with mention made of the recent drought and decreased freshwater flow in the river having been some of the reasons for this). It is not known what effect this would have on the SMPA itself. Still, it is certainly likely that local catadromous fish species (White Steenbras, Kob) or migratory species, such as the eels or paling resident at the Tourism Bureau, would be affected (Du Toit and Attwood 2008; Lambeth and Turpie 2003). Other issues that were raised not only by one or two respondents but also by a member of Cape Nature and the local conversation committee included issues related to land-owners actions. Insufficiently regulated abstraction of water by users upriver (in the catchment) and with riparian properties in the protected area (CSIR 2011; see also Ward 2018) means that the water levels of the Goukou can fall below the baseline for healthy ecologically necessary flow (Lambeth and Turpie 2003), which was exacerbated by the recent drought in the Western Cape (2015-2017). This leads to a number of potential problems, including the potential closure of the river mouth, saline intrusion and drop in groundwater levels. In 2019, one could clearly see that the freshwater reeds growing upriver on the banks were dying from the then-increased levels of salinity, as explained by the Cape Nature official with whom I was on boat patrol. The issue of building into coastal zone, particularly in Stilbaai Oos, was raised, which is coupled with the more general concern that the sewerage system is being overloaded and undermaintained. The under-performance of the sewerage system is of a particular concern, considering that there is extensive further private development planned. Finally, inappropriate riverside structures, such as ad hoc anti-erosion measures, private jetties or floating docks, were explicitly mentioned as sticking point between Cape Nature and the riparian land owners, as some of these structures do not conform to management plans and can in fact increase erosion.

Discussion: governance, networks, and volunteerism

With regard to governance and stewardship, there are many opportunities for residents to “do good” (e.g. pick up litter) either in their own capacity or as part of a local organisation or club. There is a clear sense of duty and caretaking evident amongst respondents (i.e. those who chose to respond), and the informality of many of these activities makes them sustainable in the long term. Doing what one can, when one can, has been shown to be an effective way of doing things, especially in a context where more formalised programmes of action may need resources, capital, or infrastructure that is not available (Hahn 2011; Funder and Marani 2015).

In my analysis, I mapped out the networks of formal and informal governance related to the SMPA in particular and the idea of local coastal sustainability more generally. I found that the governance of the local environment, inclusive of the protected areas in question, could be usefully characterised as a patchwork quilt (Stephenson et al. 2021). The plurality of approaches to coastal governance — globally, regionally, locally — has the real potential to create conflict or force trade-offs if formality and/or uniformity were to be forced or imposed on a context of fragmentation, or differentiated approaches, responsibilities, priorities, and/or scales (Ibid.). However, with the conscious and determined integration of the plurality of approaches and an expanded notion of “practitioner” (i.e. conservations officials and self-motivated residents), the gaps between them can be closed so that each does what is best suited to them and the systems-assemblage they are concerned with. The patches work when they are complementary, possibly even overlapping (Ibid.). As Stephenson et al. (2021) conclude:

We propose that the quilt is a strong analogy — and that practitioners with knowledge of the relative strengths and weaknesses of concepts can arrange patches as required, to collaboratively form a complete and effective management system. We recommend that it is useful to think of the quilt, comprised of the objectives and elements considered in this article, as com-
My use of “patches” here also draws on Lauren Fonto’s work into women’s leadership in the Western Cape fishing industry (Fonto 2020), in which she elaborated on Anna Louwenhaupt-Tsing’s work (2015) on the matsutake mushroom by discussing the idea of ocean or coastal relationality. As Fonto articulates:

In complicating human and “other-than-human” relations, Lowenhaupt-Tsing’s (2015) concept of “patches” helps to acknowledge the complex assemblages of humans, “other-than-humans”, and the environment which shape everyday realities. (Fonto 2020:10)

The governance “patches” that I delineate with my descriptions are determined along institutional, social, and physical lines, but are also mobile across and within these. Furthermore, the matters of concern (Latour 2005) that residents occupy themselves with involve humans, other-than-humans, and broader social-ecological systems. The multiplicity of perspectives and approaches allows for a network of stewardship to start to fill these gaps.

In terms of institutional patches, there are at least three official institutions that are mandated with managing activities in the local environment: CapeNature, operating under the mandate of the Department of Environmental Affairs,10 is specifically tasked with overseeing the protected areas; the local municipality; and the Fisheries Branch. While the MPA itself is under the jurisdiction of the DEA/DEFF, the mandate has been devolved to the authority of the provincial conservation authority, CapeNature.

While the Stilbaai MPA is designated by a continuous boundary that includes the marine area, the shore, the estuary, and the river, the geographical features, in addition, the differing levels of restrictions (Controlled, Restricted), in relation to differing activities (boating, fishing, bait-collecting, certain recreational activities), and infrastructure (private and public jetties or building on riparian properties), means that management activities or responses are variable within the space. This variability intersects with the various institutional jurisdictions or responsibilities to create further complexity in the governance structures and activities. Then, in addition, there are the social factors of the community to consider. The small local population is overwhelmed by a massive influx of visitors at seasonal holiday times. Additionally, the community of “Stilbaai” is, in fact, three settlements with their distinct sense of community: Stilbaai, Jongensfontein, and Melkhoutfontein.

There is a gap between the levels of enforcement in adjacent areas, leading to a discrepancy in how the regulations are applied. Since the public tends to be confrontational on such discrepancies, at times, the enforcement in one area drops to coincide with the other, instead of the latter stepping up their tasks.

I observed for myself how there are gaps in the network of local environmental governance in Stilbaai. The local residents, as shown, are very aware of this themselves. I argue that this could be leveraged, as it seems to motivate residents to act on their concerns for the local environment, knowing as they do that they may be the only ones with the time, resources, or intention to do so. By organising informal or formal groups or activities, they engage in a combination of stewardship, outreach, education, and pure enjoyment of the natural land- and waterscapes.

While these groups do not all engage with each other and so cannot be called a network in the formal sense, the town’s size means that they are aware of each other and often friendly with individuals in another group — operating at different, but complementary, scales. The groups include regular beach clean-ups; the surf club that has taken responsibility for the section of shore where they enter and exit the sea; the local conversation committee (whose ambit extends beyond issues related to the MPA); the local NSRI office that engages in some outreach and educational activities; and the edu-care facility in Melkhoutfontein that tries to get the children in their programme to the beach. Many of these activities are formalised, such as the Stilbaai Bewarings Trust. In contrast, others are partially informal (organised events taking place irregularly or at short notice) or entirely informal (one or two people deciding to pick up litter or give a short talk to a school or at the library).

Informality can be an advantage, in that people play to their strengths and engage more over a longer period, due to not feeling overworked or obligated. Research has shown that informality in volunteer setting can help maintain enthusiasm as events or activities are often spaced out and require short bursts of engagement instead of a sustained and often increasingly load of administration and effort that can stem from formalised organisations (Hahn 2011; Krasny et al. 2014).

Supporting the idea of stewardship as centred around care, knowledge, and agency, in a relational and reciprocal dynamics (Enqvist et al. 2018), the study by Cockburn et al. (2020) frame motivated individuals and those who they draw to them as “relational hubs”: “practitioners [who] facilitate collaborative landscape stewardship through informal, emergent, voluntary social networks, testifying to the value of long-term inter-personal relationships built on mutual trust”

10 In June 2019, President Cyril Ramaphosa reshuffled the Cabinet and removed the Fisheries and Forestry from the Department of Agriculture, Forestry and Fisheries to re-join Environmental Affairs, forming a new Department of Forestry, Fisheries and Environment on the 1st April 2021.
(Cockburn et al. 2020:691). Drawing on work by Bennet (2013) on communal rangelands in South Africa, they elaborate that: “Informality may not work everywhere, but it can be important in contexts where formal governance structures for natural resource management function poorly” (Cockburn et al. 2020:691). From these works, there emerges a clear relational framework in which stewardship is entwined with people’s sense of place and social-ecological memory, incorporating more-than-humans (such as iconic species) into this animation of care.

However, one would ideally have a formal and informal volunteerism mix. When considering how to make such activities attractive, a useful conceptual framework to bear in mind is that of Bramston et al. (2011), who presents a tripartite classification of environmental concern — for self, for others, and for the biosphere (2011:784). The authors go on to specify further three main motivations for environmental stewardship: to develop a sense of belonging; caretaking of the environment; and expanding personal learning. Krasny et al. (2014:16–17) further list social mechanisms by which motivations can be augmented or strengthened to spur people to action: social-ecological memories; sense of place; and iconic species. In a progress report to the XXX project, I delineate some of the creative and inclusive ways in which these can be leveraged for Stilbaai in particular, which nonetheless are relevant beyond this specific site (XXX).

As noted, the marine section of the SMPA was often referred to in terms that made it clear that it has less of a presence in residents’ experiences than the other sections of the protected area. This indicates that if people cannot go there, we need to bring the MPA to them — in pictures, in video, with information or activities. Not only art made from beach litter, but art in general is a fantastic way to engage the public (Song 2008; Inwood 2008). For example, the book “Waarheen die Wind Waai”11, an anthology of Stilbaai-related stories (Stilbaai Skryfkring 2017), an example of a collective engagement in the sense of place.

The benefits that accrue to human from ecological processes are often termed “ecosystem services” in conservation sciences, in language that expressly uses the economic perspective to value nature. It illustrates the idea of anthropocentrism that sees value from the perspective benefit to humanity, and slowly erodes considerations of intrinsic, or un commodified, value of an ecology that would hold even if there were an absence of humans (Washington 2020). Given that there is increasingly less space that is not altered or occupied by humans on Earth, there is a need for an ecological ethics that de-centres the human is critical (Washington). However, in learning how to motivate people to care for a system as part of that system, the identification of benefits that they enjoy, consciously or not, can be the basis of motivation.

As Masterson et al. (2019: 2), state: “A holistic consideration of the range of ways in which people derive well-being from ecosystems, and how this feeds back to the ways in which people value ecosystems and engage in stewardship and governance of ecosystems, could reveal opportunities for better governance or poverty alleviation and development interventions.” Stewardship is therefore reciprocal or even circular — as we care for our environment, it supports us in caring for ourselves. I argue that given the geographic, procedural, and jurisdictional fragmentation of environmental management in this site, it is the attitudes and practices of caretaking by members and groups of the community that manage to bind these fragments together.

Conclusion

The SMPA may not be the only thing that draws visitors to Stilbaai, but certainly, it could be the thing that sticks in their mind and draws them back. There are real opportunities to work with visitors to Stilbaai, directly or indirectly, to communicate some knowledge about the oceans that they can take home and ocean-positive behaviours that they can educate others on. Just as one can (needs to?) think about coastal sustainability in a site as a patchwork quilt that incorporates and supports both formal and informal governance, the idea of environmental stewardship need not (must not?) draw artificial borders around who can be a steward, or how far from the beach that sense of stewardship expires.

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Translation: To Where the Wind Blows.
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