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Beyond transformative community engagement: the evasion and contact zones of a European climate change project

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ABSTRACT

This paper argues that to understand how community engagement shapes relationships between Climate Change Projects (CCPs) and communities it is necessary to examine the social spaces of contact and evasion zones. In contrast to residual modernist perspectives on community engagement that tie in with assumptions about the linear and progressive relationship between transformations, knowledge and order, the social space of contact and evasion zones are better able to capture the complex, multiple and uncertain ways that community engagements reconfigure and entrench CCP and community relationships. To explore these dynamics the paper draws on ethnographic findings from a European Union (EU) Climate Change Project on Carbon Capture, Utilisation and Storage (CCUS) to illustrate how the design, planning and implementation of two community events were shaped through frictional and generative contact zones and evasion zones characterised by disconnect, stagnation and homogeneity. We argue that the implications of these dynamics were multiple and contradictory. The content and format of the community events were generated through fractious contact zones between project members which helped facilitate community events that were controllable and minimised uncertainties. Whilst this depoliticised the events and reduced the opportunities for divergent views to be recognised, it also meant that community and CCP knowledges and relations remained static leaving project partners in the dark about community dynamics that might instigate future resistance and opposition to their activities. Furthermore, whilst these evasion zones excluded community diversity, they also allowed community members to evade potential adverse entanglements with project partners and local stakeholders.

Introduction

When justifying why it is necessary and important for climate change projects (CCPs) to conduct community engagement the focus is often on the positive transformations they can help bring to projects, communities, and society as a whole. There can be great variety in what transformations community engagement set out to achieve, the extent of their participatory aspirations and their social, political and economic positioning. However, regardless of whether community engagements

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set out to minimise resistance to projects by increasing awareness and social acceptance (Dear 1992; Reiner and Nuttall 2011) or to empower communities in order to enable more just, democratic, and equitable outcomes (van Aalst, Cannon, and Burton 2008; Westoby et al. 2020) we argue that most community engagement is still shaped by residual modernist perspectives that assumes that transformations are progressive, that rational control of socio-material worlds is possible, and that knowledge can continuously improve (Burgess 1996; Chilvers and Longhurst 2016; Hajer 1995).

We will argue that these residual modernist assumptions are problematic. Firstly, the focus on transformations overlooks how community engagements can both enable transformations and re-entrenchments of social orders in complex and contractionary ways (Thomas 2017; Valladares and Boelens 2017). To understand the full implications of community engagement it is therefore necessary to understand how it might shape social order through entangled dynamics of transformation and stasis. Secondly, the notion that transformations are controllable overlooks how transformations are often characterised by heightened levels of uncertainty, friction and multiplicity that unsettles notions of control and predictability(Pratt 1991; Tsing 2005). This also means that there is often tension between the aim of instigating transformations and achieving a sense of control. Thirdly, several studies have shown how knowledge is inherently situated and enacted in ways that both include and exclude realities in shifting patterns (Haraway 1988; Law 2004). The issue is therefore not how community engagement can improve or be improved by knowledge, but how it might reconfigure or entrench particular patterns of knowledge.

To move towards understandings that are better able to apprehend the complex, multiple and contractionary ways that community engagement unfolds we argue that it can be productive to consider how these community engagements are shaped through the social space of contact and evasion zones. There has been much work on contact zones as generative social spaces where differences clash in ways that can transform relationships, knowledges and power dynamics (Askins and Pain 2011; Jakimowicz and Rzeczkowski 2023; Pratt 1991). To complement this work and to better comprehend how social space might also enable singularity, stasis and disconnect we develop the notion of evasion zones. To illustrate how contact and evasion zones can shape community engagement we draw on ethnographic fieldwork from an EU-funded Climate Change Project on Carbon Capture, Utilisation and Storage (CCUS) where we examine the everyday practice of conceptualising, negotiating, planning and implementing the project's community engagement activities. We argue that generative contact zones often shaped the interactions between internal project partners[1] in ways that reconfigured and contested community engagement practices and knowledges. In contrast, most engagements with community members were shaped through evasion zones that were organised and enacted in ways that minimised diversity whilst entrenching inertia and disconnections. The intertwined dynamics of evasion and contact zones had multiple and contradictory political implications as they both depoliticised community and CCP relationships whilst enabling community spaces protected from the potential adverse implications that entanglements with political and social powerful stakeholders could have.

To explore these issues in the next section we will first lay out the residual modernist perspectives in community engagements for CCPs. We will then examine the dynamics of contact and evasion zones and their importance for shaping community engagement.

Community engagements and residual modernist perspectives

Contact and evasion zones

Pratt coined the term contact zones "to refer to social spaces where cultures meet, clash, and grapple with each other, often in contexts of highly asymmetrical relations of power" (Pratt 1991, 34). These social spaces are inherently heterogenous and can be riddled with misunderstandings, incomprehension and conflict, but they can also generate new understandings, insights and joy (Pratt 1991). Contact zones share some characteristics with Tsing's work that explores how friction can

be a generative force that emerges from "zones of awkward engagement" (Tsing 2005, p. xi) where unequal and unstable encounters can propel and reconstitute globally connected movements, connections, knowledge, and social order. Frictional encounters do not predetermine outcomes, but they instigate transformations that create and steer connections and pathways that can be "enabling, excluding, and particularising" (Tsing 2005, 6). Contact zones are characterised by heightened levels of uncertainty as the transformations they instigate threaten to disrupt cultural and social continuities (O'Sullivan-Lago, de Abreu, and Burgess 2008), but as they bring together multiple perspectives they can also generate new knowledge constellations about complex socio-material worlds (Jakimowicz and Rzeczkowski 2023).

Whilst contact zones are useful for understanding how troubled encounters can generate transformations in social relations, knowledges, and power relations, they are less useful for examining how social spaces steer encounters towards order, inertia, disconnect and uniformity. To make sense of these types of engagements, we suggest the term evasion zones.

We consider evasion zones to be social spaces characterised by the evasion of differences and the troubled transformations they bring. It is the facilitation of social spaces where diverse cultural, social and political practices do not unfold; where subaltern voices cannot be heard (Spivak 2010); and where people avoid actions that might cause social, cultural or political friction and obstruction. Evasion zones can be underpinned by assumed notions of similarity or at least the desire to achieve a "common ground". They are enacted in such ways that engagements are channelled towards synthesis and shared values (Pratt 1991) in order to prevent the expression and clash of differences that threaten to ignite and disrupt. Whilst contact zones can be generative of new forms of relations, movement and power dynamics, evasion zones produce social inertia and disconnections which means that existing practices, knowledges and relationships are left undisturbed.

The implications of these features of evasion zones can be multiple and politically divergent. Whilst social inertia can entrench static political and economic systems and prevent necessary change (Brulle and Norgaard 2019), the avoidance of change and risks can also protect against culturally traumatic transformations (Sztompka 2000). Similarly, whilst disconnections can be produced by dominant political and economic structures and processes in ways that create patterns of economic and political inclusion and exclusion (Ferguson 1999; Pettit 2021), the evasion of entanglements can also be actively sought by people to resist oppressive political and economic structures (Scott 2009). Furthermore, evasion zones are not inherently tied to a particular kind of community engagement approach. Projects that seek participatory engagement strategies can still enact evasion zones that result in the avoidance of troubled community contacts and the creation and maintenance of disconnections (Gardner et al. 2012). Evasion zones are not the binary opposite of contact zones, nor do we see evasion and contact zones forming a holistic whole of possible social spaces that can shape social relationships. However, we find the term useful to make sense of a particular type of social space that is characterised by the minimisation of differences, avoidance of confrontations, and elusion of connections.

Contact and evasion zones can be transient and occur in unexpected circumstances; however, they can also be entangled in organisational processes. CCP projects can involve the ongoing organisation of a wide range of different community engagement activities with different methods, tools and aims such as town hall meetings, workshops, participatory action research, and citizens assemblies (The Engage 2020 Consortium, 2014). These organisational activities include designing and planning the activities, negotiating with project partners and external stakeholders, recruiting participants and enacting community engagement activities (The Engage2020 Consortium, 2014; Simpson and Ashworth 2009). In this paper we will argue that this array of project activities is important to consider both as these project activities themselves can be shaped by shifting contact and evasion zones, but also as they can play a significant part in moulding the social spaces that CCP and community relations are shaped through. However, this does not mean that the contact and evasion zones that shape CCP and community relations are predetermined by these organisational activities. How community members themselves engage

and disengage with these activities also has implications for how CCP and community relations are shaped by shifting contact and evasion zones.

Methods

To illustrate how community engagement was shaped through shifting contact and evasion zones, we draw on ethnographic research from a four-year Carbon, Capture, Utilisation and Storage project. Our role in the project was to examine the social acceptance of CCUS and, together with the project partners, implement a range of community events. The research proposal specifies that these community events should take place in what the project defines as two European CO_2 clusters: Northwest Europe (Denmark, Netherlands, and the United Kingdom) and Southeast Europe (Greece, Bulgaria, and Romania). Our paper draws on the first three years of the project and focuses on the processes, practices and encounters that shaped the planning, scope, format and implementation of two community events that took place in these clusters. This process involved ongoing discussions in our team, online and offline encounters with project partners, local stakeholders and community members, the exchange and circulation of documents, and field visits of up to a month at the potential sites of the events. How exactly we would be involved in the planning and enacting of the community events was intentionally emergent and evolved continuously throughout the project. Sometimes we would take a leading role in implementing the events. At other times some or all of us were less directly involved and could take a more observational stance, for example, when we observed how particular community events unfolded in communities where we could not speak the local language. The research was approved by the university's ethics committee and by an external ethics advisor. We also gained written and verbal consent from the participants and they had a chance to read the manuscripts to address any concerns about their anonymity before publication. Most of the project partners and community members wanted to avoid the more detailed ethnographic descriptions that could potentially lead to their identification. We therefore did not include the richer ethnographic details that we initially had included in our drafts. This could perhaps in itself be seen as an example of people's efforts to maintain evasion zones where the explicit details about diverse and troubled encounters were avoided in order to minimise the potential for uncertain transformations.

Our relationship with the field was, therefore, dynamic, complex, entangled, and ambivalent. This is not unique to our study as there has long been an ongoing move towards recognising and exploring the fluid and entangled conceptual, cultural, and spatial boundaries and distances between the field and the researcher (Gupta and Ferguson 1997; Marcus 1998; Pink 2008). Feminist, anthropological and science, technology and society (STS) studies have shown how ethnographers (like any other researchers) are never just passive observers who, with a view from nowhere, observe an objective, independent world out there (Haraway 1988; Latour 2005; Law 2004). Rather, the methods that are used, i.e. participating, observing, noting, analysing, and writing up, shape how the field is experienced, represented and constituted. This has implications for how the writing of ethnography is inherently situated, partial and political (Clifford and Marcus 1986), as well as how the field is experienced and constituted (Abu-Lughod 1996; Law 2004; Pink 2008). Consequently, through their embodied presence and through the relationships they establish, avoid, disconnect and maintain, the researchers and participants are co-implicated in ongoing and shifting processes of place-making the field (Pink 2008). For our research, this was particularly pertinent as we would actively seek to organise certain placemaking events where relationships between communities and our project could be established. We, just like any other project or community member, had particular, though often changing, views and intentions for how best to shape project and community engagements and relationships. Our account of the events is, therefore, inherently interpretive, situated and political. Our politically implicated aim with this research is, therefore, not to make claims to the singular objective uniqueness of our knowledge, but rather

to forge links between "different knowledges that are possible from different locations" (Ferguson 1990; Gupta and Ferguson 1997, 39).

The shaping of community engagement through contact and evasion zones

The project conducted 12 community events in total. Although each community event was unique, to enable greater detail in illustrating how contact and evasion zones shaped community events we have chosen to focus on two events that took place in what we label Location A and B.

Shared beginnings: stirrings at the general assembly

From the outset, we wanted to take a collaborative approach where we would not seek to predetermine how to conduct the research and community engagement. We intended to listen and learn from both project and community members so that their concerns could mould the community engagement aspect of the project.

However, to start the conversation we would suggest to the project partners at the first general assembly that we should conduct community events at locations A and B as they were the sites where the technologies of the project would be tested. Initially, we thought that local partners would welcome the opportunity to conduct community events in their location as it could transform their understanding of what the concerns of community members were. Both Location A and B had previously experienced protests against commercial projects in the same sectors as the industrial partners. For location A, previous efforts by another company to store CO_2 underground had been met with fierce local protest which had resulted in the cancellation of the project. Furthermore, our initial systematic review that was shared with the project partners illustrated that many CCUS projects had been cancelled due to local protests and found that conducting how community engagements were conducted could play a role in shaping CCP and community relationships.

The general assembly took place over a couple of days and was a mix of presentations, workshops and a range of social events where people could get to know each other. When it became our turn to present our plans, to our surprise, our suggestion that the focus of the community events should be the demonstration sites caused a sudden burst of uncertainty, debate and contestation. The project partners in Location A argued that conducting community events about the project would stir up things unnecessarily and potentially risk the whole project. They also argued that the locations of the demonstration sites were not that important and that conducting community events about the project at their location risked shifting the focus from the technology to their companies and institutions. In contrast, project partners in Location B were initially less worried, but when the discussion brought up the potential for community events outside the demonstration sites, they objected. They had a long history of maintaining a good relationship with their community, so they would rather have the events conducted at their location and with their companies directly involved.

Over the next months and years, in a range of in-person meetings, phone and video calls, email exchanges, and informal chats, how to conduct the community events was planned. At times the issues could be temporally settled, only to suddenly erupt into new troubles that propelled the community events towards new pathways. A range of contestations emerged throughout the project and often became entangled with new uncertainties, differences, disagreements and temporary settlements.

One area that created friction was what was meant by CCUS. Partners in Location B considered that it would be better to focus on the CCUS technologies in the project as it would be these technologies that potentially would have the greatest implications for the local economy, partners, and environment. In contrast partners in Location A thought that it would be more relevant for the communities to explore CCUS in generic terms, as else the events could end up focusing on the local partners and not the technologies involved in CCUS. These positionings also played into what

communities should be consulted. In Location B where the focus was on the CCUS technologies that were tested in the project, it was argued that it was better to engage with communities near the piloting sites. However, in Location A if the focus of the community events was CCUS in general, any community groups in the two CO_2 clusters of the project could be consulted.

How to deal with uncertainties was a consistent source of friction. Project partners in Location B were worried that discussing the uncertainties that are inherent in developing new technologies with community members could create unnecessary misunderstandings and resistance to the technology as a whole. In contrast, project partners in Location A were agnostic as long as the community event was not tied to them directly. Some even agreed with our perspective that sharing uncertainties with community members could enable better learning opportunities for both the project and community members.

Questions about what local stakeholders to involve could also lead to sudden flares of contestations. This did not play out along singular predictable patterns. In Location B, inviting the local mayor was seen as necessary by the local project partners as it would improve the impact of the community event. In contrast, in Location A any discussion about reaching out to the local mayor or stakeholders caused ripples of anxiety as it risked making it about local political issues. Similarly, when it came to engaging with environmental organisations, there were differences. For Location A, as long as we did not focus the community event on the project and the partners involved, they didn't see any problems, and there was even expression about the democratic importance of having a diversity of opinions. However, for Location B this was the beginning of a year-long ongoing negotiation where at moments, the inclusion of environmental organisations was accepted, and at other moments it became problematic.

For both events, one of the main dynamics was the desire to conduct controllable community events that minimised the potential for troubled community relations. The contestations that erupted were often grounded in fear about how community engagements might instigate unpredictable transformations. Although there were also desires to conduct community engagement activities that could generate new understandings about social acceptance, this was something that had to be gained through controlled community engagements where uncertainties and troubles had been minimised.

Engagements between project partners not only reshaped the pathways of community engagements but also transformed relationships and knowledges. By exposing and letting differences clash, trust in and care for project members could deepen. Heated discussions in the day could be followed by caring talks about the joys and challenges people face in their lives. However, these generative frictions could also lead to ruptured relationships that never healed and they could reconfigure power dynamics between project members and partners in unpredictable ways. In our team two of the researchers were on contracts that were tied in with the project, so any disruptions that threatened the continuation of the project also threatened the livelihood of the researchers. Eventually, we found that the transformations these encounters instigated brought brought to many uncertainties and risks with them. We therefore consciously started to disentangle ourselves from activities and expressions of differences that could instigate these troubled encounters and transformations. This also meant that we achieved a greater sense of control as the uncertainties diminished, but at the same time, the transformative potentials of these encounters dissipated.

Community disconnections

Before carrying out the community events, we also sought to engage with local community members to let them shape the project. For example, directly after the first general assembly, we went for a couple of weeks to both Location A and B. We wanted to try to build up relationships with local community members so that they could also influence how the community engagement activities were shaped. To start with, we tried to contact local organisations in person or via email, text or telephone. We would explain the project and seek to make it clear that we wanted our

engagement activities to be relevant to the people we engaged with. In Location A, most did not reply, and if they did, it was a polite refusal to meet. Sometimes meetings would be arranged with local organisations, but the response would often be along the lines of one local minority organisation leader who, after a long friendly conversation, said "I have a difficult time seeing the connection … at all". We also tried to attend local events and get to talk with local community members; however, for the most part, there was little interest in getting involved with the project. It was only once the conversation game format had been finalised and once the participation incentives of what equalled £20 were arranged that we managed to entice a local community group to become interested in helping us arrange an event with them. In location B, our initial engagement with community members sparked some interest and a handful of people agreed to conduct some interviews. A local school was also interested in arranging activities with the students, although initial interest was sparked by the fact that it was part of an EU project which was seen as having the potential to give the students experiences that would benefit them in their future endeavours. However, when it came to the town hall meeting, the people who we had interviewed and the students who we had conducted some activities with, did not turn up.

The infrequent and limited periods of time we were able to spend at the different community sites also helped shape the temporal and spatial dimensions of our interactions with community members. We had initially planned to spend between 6–12 weeks a year in each community site to enable some local connections and to further our understanding of the local context. However, due to institutional reluctance to long-term travel, budget uncertainties, and the daily demands of academic work and life, our visits become shorter and more sporadic. This resulted in our interactions with community members becoming more business-like and goal-oriented. After our first initial visit, our subsequent visits were focused on trying to implement mostly pre-planned community events. This meant that most of our time was spent trying to sort out the location and timing of the events, establish connections with "relevant" stakeholders that could help facilitate the events, and recruit whatever community members that particular event focused on. Consequently, there was little leeway for unplanned, awkward and troublesome encounters that could reconstitute our understanding of the local communities and create new project trajectories.

The community events

For Location A it was decided in the end to make a conversation game about CCUS technologies in general that included a wide range of information including the uncertainties and controversies associated with CCUS. Although project partners in Location A had desired to conduct the community event somewhere else, they agreed to conduct it in the location as long as the focus was not on the project and their activities. The community event was conducted in the local community centre in a part of town that an informant described as "nowhere". The area is separated from the downtown area by motorways that cut across roads and walkways towards the centre of town. Most of the time when the area finds itself at the centre of things it is due to issues of high migration levels and being at the wrong end of the scale when social and health inequalities are measured and debated amongst politicians somewhere else. 16 people turned up to the event which lasted two hours. The participants were split into four groups. For three of the groups, the CCUS conversation game stimulated many free-flowing and engaging conversations about CCUS and a range of different topics that the community members considered to be relevant. However, in one of the groups, there was mostly silence, small talk about life and looking at phones. Asked what they think about the conversation game, they said it felt a bit like being back at school and that it was hard to focus especially since they came to the event straight after work. After the conversation game, many of the participants stayed for a while to ask questions and some asked for copies of the game. However, quickly the focus of the conversation changed to the lack of public services in the area, how people ended up being stuck alone and depressed in their houses, and how no one ever really asked nor listened to them when new projects and initiatives are instigated. A comment was, that the reason they

enjoyed the conversation game was that at least for a moment they were taken seriously. After the event, we reached out to the participants a few times to hear if they were interested in conducting other activities focusing on CCUS, but there was little enthusiasm for committing more effort to our project and the topic of CCUS.

For location B, it was decided to conduct a town hall meeting at the local Chamber of Commerce. A common invitation list was prepared with both the researchers' and the industrial partner's input and invites were sent out from each partner individually. What logo to include brought further contestation. Our initial view was that only the logo of the project should be included so that people didn't feel that the event was conducted on behalf of the local companies. In contrast, the project partners argued vehemently for the inclusion of the logo as they thought it was necessary to increase attendance. In the end, the project partners' logos were included last minute. At the event there was a good turnout of 60 people, however, a large majority of these people worked for or had collaborated with the project partners. Project members presented on the technical aspects and local and national stakeholders spoke about the importance of the project for the area and the country as a whole. There was a break midway through the event where food and snacks were served, but a significant amount of people took the opportunity to leave early. After some further presentations in the second part of the event, a few of the audience members had some questions about the details of the project, but nothing that stimulated much debate, anxiety or contestation.

Conducting the community events for the most part did not spark unexpected connections and contestations nor did it lead to changed trajectories of the project. Even when community events generated lively discussions amongst the community members, the discussions were safely contained within the format of the event. For example, although the conversation game in Location A amongst most participants generated extensive discussions about the impacts and benefits of CCUS, they did not cause friction and contestations that could change the pathways of the event and the project. This was partly due to how we as facilitators sought to ensure that the conversation game was conducted in the "right way". This meant that everything from the timings of the different phases of the game to the seating arrangements of the participants, to the content and distribution of the discussion cards were controlled by us. So although the participants could have "free" discussions about CCUS, these discussions were bound by the temporal and spatial setup of the conversation game that was designed by the concerns, contestations, aims, and aspirations of others. Furthermore, when participants expressed concerns about the welfare state, loneliness and citizenship disempowerment it did not lead to a transformation in how the project's community engagements were conducted.

There were exceptions, and in some instances, we managed to build up deeper social relationships with local community members. When in the field, this could lead to shared dinners at their home followed by extensive conversations on various matters. At times these connections could cause potential friction, but these would quickly fizzle out and revert back to inaction and inertia. For example, one time, a community member from location B emailed us that their yard was covered in ash and that to their knowledge, the ash originated from one of the industrial partners of the project. We had some further emails about what to do next, however, suddenly the community member's email account stopped working. When we called them, they explained that they had filed a complaint with the local authorities. After having submitted the complaint they then regretted that decision and closed down their email account as they were worried their identity would be revealed. In the brief phone conversation, we discussed with the community members potential ways we could help examine the issue with the ash further. However, if we did so, we were worried that it could change the dynamics of the relations we had with the industrial partner, which could have an impact on the overall project. Furthermore, we were worried that it was beyond the scope of the project to examine local pollution issues, even though the community member had made a link between CCUS and local pollution. During the short phone conversation, we decided together with the member of the community to wait and see. At the time of writing

more than a year later, this potential friction that could have propelled the project and our research in new directions dissipated and we had not received any further information on the matter from the community member.

Discussion and conclusion

Similar to the two community events in Location A and B, all of the 12 community events we conducted went to plan and the encounters between the community and project members they facilitated happened in a mostly orderly and frictionless manner. This was despite significant differences in the format. There were in-person and online-style town hall meetings, conversation games held in small groups, stakeholder roundtables, and more long-term educational activities.

If these community engagement events were interpreted by residual modernist perspectives the focus might be on how effective they were in transforming CCP and community relationships and expanding knowledge about the dynamics that shape social acceptance of CCUS. There might also be a focus on what lessons could be learned and shared in relation to what worked and how they could be improved in the future. Although we do not argue that these perspectives are not important, we believe that they overlook how community engagements and the dynamics of transformations, control and knowledge are shaped in complex ways through contact and evasion zones.

On the one, the internal interactions between project members were largely facilitated by contact zones that mainly emerged in the project-embedded social spaces where differences could be expressed, trouble could occur and be settled, and the community engagement activities could be steered towards certain pathways. It was the sudden burst of unease and anxiety with our initial proposals that ignited a process where community events moved towards accommodating the local context as expressed through the local project partners of the project. It was through the organising of regular project-embedded encounters in person and online that social spaces were created that allowed for continued frictions and misunderstandings to emerge, be grappled with, and settled in ways that propelled the community events in new directions. Through these contact zones, new collaborations and relations were established, views on communities and the methodologies we used changed, and it resulted in reconfigurations that, for better or worse, closed down some opportunities whilst opening up others. However, the transformations these contact zones generated were also filled with heightened levels of uncertainty about how they might transform relationships, knowledges and power dynamics. This eventually also meant that we made efforts to avoid and minimise the potentially troubled transformations they brought.

In contrast, the encounters with community members were characterised by evasion zones, where there was limited scope for including diverse ways of knowing and being in the world. When community encounters occurred, they were being channelled through social spaces where the temporal, spatial and epistemological boundaries had been shaped in ways that sought to minimise the potential for troubled encounters. When we initially sought to involve community members early on to let them shape the process, there were already several factors that limited the possibility for community diversities to be expressed. The topic had been predefined; the timings and scope of the project were contracted by the EU; the initial plans for the community engagements had already been made and unmade internally in the project; and it was clear that we were only short-term visitors with little scope to build up local trust, connection and insight. When it came to the events, it was a similar pattern. How to talk about CCUS, what kinds of uncertainties to reveal, what format to employ, and what stakeholders should be involved had already been shaped through the internal contact zones of the project in ways that sought to enable control and minimise troubles and frictions from emerging.

When community engagements threatened to cause friction, they quickly smoothed out as we and community members disengaged from each other. When community members expressed that our project was not relevant to their lives or that we should examine issues that lay outside the focus of the project, this did not lead to an onset of divergent and frictional encounters that

could steer the project in new directions. Instead, after a few interactions, it led to an impasse and an entrenched disconnect from the project. This was largely due to our concerns that these frictions could steer the project down pathways that would mean a reconfiguration of our research focus and would cause trouble with the other project partners.

The implications of our community events are not singular and straightforward. It could be read through a critical lens that saw the crafting of evasion zones as part of a depoliticising process that seeks to shape convenient communities (Valladares and Boelens 2017) in order to facilitate the ongoing implementation of controversial technologies that play into existing political and economic systems (Stuart, Gunderson, and Petersen 2020). On the other side, it could be seen as a successful way to navigate complex community landscapes to ensure orderly community and CCP relationships.

However, we believe the implications are less straightforward. The evasion zones that happened between the project and community members were not solely the result of what happened within the project. Similar to how we ended up trying to maintain and create evasion zones with other project members, community members actively sought to disentangle themselves from the uncertainties that contact with our project brought. Although we can mostly speculate about why that is, these evasion attempts align with the tactics that other marginalised groups use to resist, disrupt and protect themselves against powerful regimes (Scott 2009). Furthermore, whilst contact zones can be generative of social relationships that can reconfigure political and environmental landscapes, there is no guarantee that this will play out in ways that align with diverse sets of community interests. If contact zones had shaped the community engagements, it might have propelled the project towards pathways that aligned more with some community members' circumstances, but it could also have led to new types of unequal social and political relationships.

Whilst the community events happened in ways that minimised uncertainties and gave a sense of control, this also meant that the community engagement activities did not instigate transformations in project and community members' relationships and knowledges. For project partner, this also meant that the community events did not transform their understanding of the social and cultural dynamics that shape communities' responses to projects. In the past many CCUS projects have been disrupted by unexpected community resistance (Wang, Akimoto, and Nemet 2021), and as other research has indicated a seemingly tranquil community relationship does not represent nor ensure ongoing social acceptance of the project and can make projects blind to the harms they are causing local community members (Anderson et al., 2012). Had community engagement been shaped more by contact zones, it could have resulted in the generation of insights and relationships that, in the long term, could potentially have minimised more active forms of resistance towards the technologies. However, these troubled and frictional engagements might also have propelled towards pathways that, in other ways, were disruptive to the established local political and social order.

The dynamic relationship between contact and evasion zones can have implications that are complex, multiple and filled with uncertainties. The frictions caused by contact zones can create trajectories that enable new patterns of knowledge and social relationships, but how these pathways reconfigure social order and what the political implications are for different social groups is contingent on the particular context. Similarly, whilst evasion zones enable stasis in knowledge and relationships, to understand the implications of this inertia it is necessary to examine how it might preserve, prevent and maintain particular social and political relationships that might be beneficial and detrimental to different social groups across different social spaces.

We do not argue that notions of contact and evasion zones can explain all aspects of how community engagements unfold and the implications of these encounters. Yet we find these terms useful to move beyond residual modernist assumptions about the linear and progressive relationship between transformation, control and knowledge. By examining how community engagements are shaped through contact and evasion zones in ways that reconfigure and entrench patterns of transformations, stasis, control uncertainty and included and excluded knowledges it is possible

to develop a more fine-grained understanding of the complex and ambivalent ways that community engagement activities shape community and CCP relationships and the divergent implications they can have.

Note

1. Members of the project include think tanks, research institutes, industrial companies, universities as well as a project management company.

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