

Green Football?

Realms of Carbon and the Politics of Decarbonisation

Tim Gashi

Abstract

This study develops the concept of 'realms of carbon' to advance an understanding of climate politics in sites where carbon production and consumption, generating carbon emissions, is embedded in culture and identity. It does so by drawing on insights of three different theories, which in different ways, deal with dimensions of culture and identity to economic and political life. The study further works towards the world of football to deepen the theoretical concept, and further investigates in what ways interventions are emerging to govern these sites. To guide the work towards football, a policy-oriented theory of Steve Bernstein and Matthew Hoffmann developed for climate politics was utilised. The study pinpoints the need to uncover culture and identities' role in embedding the fossil. By investigating contemporary interventions the study gains critical insight on how realms of carbon can be disrupted, by inviting inhabitants to a realm largely decarbonised through the economy, politics - and cultural detachment from the fossil.

Keywords: Realms of carbon, culture, identity, decarbonisation, intervention

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Abbreviations

ATP	Association of Tennis Professionals
DBU	Dansk Boldspil Union (Danish Football Association)
EU	European Union
FGR	Forest Green Rovers
FIFA	International Association Football Federation
GHG	Greenhouse gas
UEFA	The Union of European Football Associations
UNFCCC	United Nations Framework Convention on Climate Change

1 Introduction and problem discussion

Greenhouse gas emissions in the EU by sector* in 2019

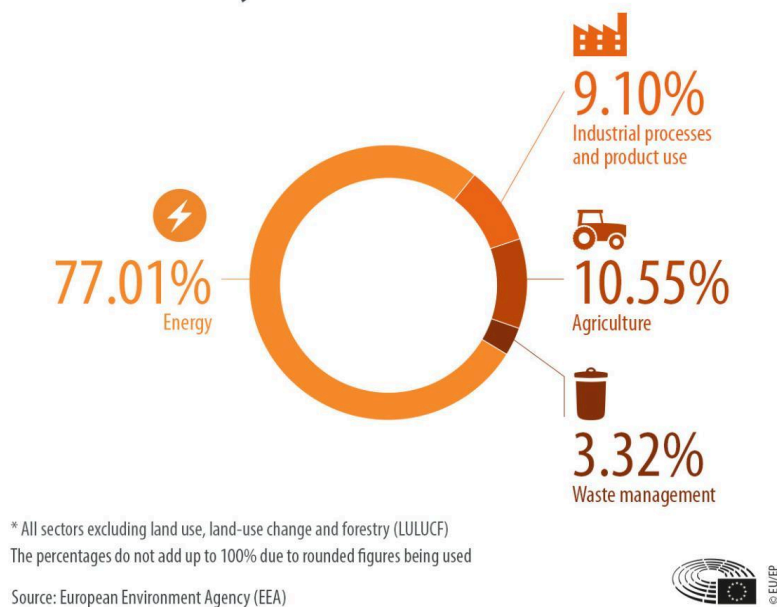


Figure 1. [In colour online, see

https://www.europarl.europa.eu/resources/library/images/20211026PHT15839/20211026PHT15839_original.jpg] Image showing percentages of greenhouse gases emitted by sector within the EU

Source: European Parliament

The image above presents greenhouse gas (GHG) emissions from four different sectors - energy, agriculture, industrial processes and production and waste management. To divide emissions into sectors of our economy is the common way of approaching climate politics. It has the effect that policies on consumption and production of carbon are often limited to these areas of economic and political life. In focusing on these sectors of our economy, governments and other supranational alliances such as the EU, have been fairly ambitious in setting targets to decarbonise these sectors (Bulkeley et al., 2022) (European Parliament, 2023). This is likely due to the shift in global climate politics towards transformation of society as such through various net-zero emission targets (Bulkeley et al., 2022, p.1). Ambitious goals and policy frameworks to reach them could be deemed a

positive result although much is yet to be done. About whether it is good or bad, will be achieved or not, this essay will have little to say.

This essay takes on another spin to the idea of putting our emissions into these common suspects of sectors which policy follows upon. In recent years, attempts to govern climate change have emerged in different realms which we are not necessarily used to deem subjects of climate change - for example music and sports (Coldplay, 2023) (UEFA, 2021) (ATP, 2023). These examples raise important questions such as whether our way of categorising emissions into sectors of strict economic nature is satisfactory? Is not going to see a football match or a concert inherently different from travelling to work or transporting goods within our economy? Can policy be constructed the same way to be successful? This essay's elementary idea is that the common way of categorising emissions into these traditional sectors says very little about the different societal realms of production and consumptions - through which carbon emissions are also produced.

The purpose of this essay is thus to theorise on how we can think of these realms, which I conceptualise as '*realms of carbon*'. The concept of 'realms of carbon' advances our understanding of how the politics of decarbonisation could be understood. While existing research in political science has focused on particular sectors or scales, the challenges of decarbonisation exceeds these boundaries. We need scholarship that provides new perspectives capable of integrating culture and identity into the analysis. Through developing the concept realms of carbon the study can further understand not solely what they are and how they are being sustained, but crucially how they could be disrupted and thus transformed.

As the theorising aims to show, the main contribution of this study is *culture's* impact on how carbon use is being produced and sustained and what it does for governing inherently cultural sites. The word *realm* is here intentionally used since I deem it to do the opposite of terms such as sector, a political level, or even a physical site (like a city). If those terms of the political vocabulary limit what kind of politics of decarbonisation that could be seen and thought about, the term realms of carbon opens up the analysis to a wider set of actors, infrastructures, systems and processes.

In this essay, the concept realm of carbon will be developed mostly through engagement with football, but also through a few other illustrative examples. However, I hope that the conceptualisation of realms of carbon will be useful also for other scholars working on the politics of decarbonisation. The concept could hypothetically be proactive in many of those instances where carbon emissions are embedded in our culture and identities. In order to govern a transition away from fossil fuels, realms of carbon need to be identified and disrupted, and it is this politics that this essay is ultimately about.

I am fully aware that a purely theorising study is not of the ordinary. Hence I will, after I have presented the purpose and research question, carefully go through the methodological implications of this study as well as how, precisely, this study will be worked out.

1.1 Purpose and research question

The aim of this study is to advance an understanding of the politics of decarbonisation through developing the concept realms of carbon. Realms of carbon foregrounds carbon that is embedded in culture and identities and thus allows for a new kind of analysis in terms of where, how and by whom the forms of governance needed to decarbonize society emerges. Realms of carbon will be anchored empirically through a few ‘excursions’ within the world of football zooming in on contemporary interventions that are intended to problematize and disrupt football’s relation to carbon.

- 1. How could realms of carbon be conceptualised?*
- 2. Where, how and by whom are interventions to disrupt realms of carbon emerging in the world of football?*

1.2 Methods and delimitations of theorising

For this thesis I view the theorising itself as the main purpose. Nonetheless, we need to consider methodological considerations to avoid certain pitfalls when conducting any study. I will now turn to discuss those relevant for this one.

In stating my aim to “advance an understanding” I put this essay in the field of qualitative research (Teorell & Svensson, 2007, p.10). I would like to stress that this is purely a pragmatic choice. I simply deem it undoable, given what I've chosen to study, to claim the aim to explain something. One could imagine a similar quantitative study with realms of carbon as merely theoretical glasses to interpret an extensive database of interventions targeting the world of football, providing some explaining answers. However, since there is no such data-set available, and since it in this case would take too long to develop one, such a study is out of the question.

Since I still deemed the research approach to fill this gap I claim to exist within the social sciences - in being able to grasp these inherent cultural emerging sites of climate politics through our common framework - I shifted focus from explaining them to developing a theory to precisely advance an understanding of them. Since I have put the essay in the epistemological corner of qualitative research (Teorell & Svensson, 2007, p.10), the methodological considerations follow quite reasonably. I will now turn to go through them.

In choosing interventions within the world of football, for the later part of the thesis, I have sought to choose interventions that vary in where they take place within the world of football; on more of an institutional level and more of a club-level closer to everyday lives. This reasoning is based on creating variation in where the intervention takes place within the world of football. With that in mind I must once again reassure that I make no claims to generalise my results. With the delimitation of choosing a few interventions I am fully aware that by choosing those interventions I disregard an immense amount of *other interventions*. The ‘excursions’ should be seen as a way of anchoring and visualising the concept realms of carbon empirically. This in order to enhance an

understanding of what politics of decarbonization there *could be* and not what *is* in a more general sense.

Furthermore, as in all qualitative research methods there is the element of interpreting and what it does for scientific values such as intersubjectivity. I will here consistently be transparent with my interpretations and coherent when relating these to theoretical concepts. By doing so the goal is to make the reasoning *visible* throughout, that is the utmost goal and a prerequisite for this essay's scientific value. If it can not be criticised it is no good (Badersten, 2006, p.74-78). I will now present important considerations on material and then go through precisely how I will conduct this study in the operationalisation-part.

1.2.1 Material

As for material, especially regarding the excursions and some of the examples in order to visualise realms of carbon, the material of this essay can be thought to be 'out of the ordinary' in comparison to other political science research. Nonetheless, I deem the choice of material in these instances to follow my also slightly 'out of the ordinary' purpose of research - in looking for aspects of culture and identity in carbon's embeddedness and choosing to empirically anchor my concept through the world of football. The X-account (later to be visited) 'Footy Scran' could well exemplify such a material. In order to see that consuming food is a part of the global culture of football one would likely have to regard these types of sources; since there is no 'standard' political or economic body governing food in relation to football producing some sort of material on this topic.

Another key source of material that needs to be elaborated on is the interview with the senior advisor on sustainability at the Dansk Boldspil Union (Danish Football Association, DBU); Anders Kjaer. The interview was conducted both due to interest as well as pragmatic reasons. I was originally interested in the strategy plan of the DBU since I deem it to give insight into how an organisational body within the world of football governs climate change and sustainability, on more of an institutional level. However, the strategy plan and this project are in very early stages, it was first released in

September of 2023 (DBU, 2023). A guiding strategy plan as one could expect is rather abstract, at least not detailed. Hence the pragmatic reason for interviewing someone knowledgeable of the project to gain deeper understanding.

The interview was conducted in an open way with questions proposed openly and pointed to the different parts of the strategy plan concerned with football's environmental impact. An example of a question asked is what an environmental campaign within football could look like, which is stated to be done in the strategy plan (DBU, 2023. p.20). A, by Anders Kjaer, provided example of such a campaign will be discussed in the segment on the DBU.

1.3 Operationalisation

I will in this brief segment step by step go through the structure of what is from here on to be done. After I have contextualised this study within the field of research and declared its contribution to it, I will first and foremost provide a brief background to football and the environment. This so that the reader has at least partly an equivalent knowledge of the area in order to better understand the environmental work. I will further provide a brief background to the different excursions. After I have done so I will turn to this study's main contribution which is to theorise the theoretical contribution; realms of carbon.

In order to study interventions to disrupt realms connection to carbon, this essay needs an accompanying theory which is policy oriented. Such a theory will, after I have theorised realms of carbon, be presented to then go on a few empirical excursions - tying the excursions to the concepts within the policy-theory and further to the broader discussion of realms of carbon. Those excursions should not be seen as any deeper analysis, in the likes of a case study, but rather an attempt to deepen the understanding of realms of carbon through turning to the governing side of them. Lastly I will draw a few conclusions on what I have found to then end this study with some 'final provocations'.

1.4 Football and climate change; previous research

In this segment I will put my research in a scientific context by presenting a selection of previous research within the study field. In its broadest sense, the study field could be thought of as climate politics. However one could phrase it more precisely as the study field of decarbonisation of society in relation to societal phenomena. I aim to theorise inherently culturally formed societal phenomena and I am particularly interested in football. Although a fairly narrow line of research, there have been a few studies conducted on football's relation to climate change. By presenting some of these studies I aim to highlight what studies investigating the cultural phenomena of football in relation to climate change have concluded, and further what this study could contribute to within this line of research.

Previous research have for example been focusing on environmental campaigns engaging football fans. Amann and Doidge (2023) conducted such a study in order to understand how campaigns aiming to engage football fans on climate issues need to be inlined with the identity of fans and the broader culture of football. Through investigating a British football club, Whitehawk, and a related campaign called “Plegdeball”, Amann and Doidge found that football fans can be a significant resource in combating climate change if they are engaged through the identity and worldview of football fans as well as the broader culture of football (Amann, Doidge, 2023, p.1351-1352). Amann and Doidge (2023) further conclude that although their study is focused on a relatively small fan-base; their conclusions could be generalised to the broader population of football fans around the world due to football fans' element of heterogeneity (Amann, Doidge, 2023. p.1253).

Mabon (2023) takes on more of a holistic approach to football's relation to climate change. Mabon's study draws from the actuality of football becoming an issue of climate change, embodied by a range of different actors, from clubs, individual players to the UN. Driven by this actuality Mabon sees the need to theorise on what an evidence-based response to climate change from football could be (Mabon, 2023, p.315). Mabon further does so by bringing together previous research on footballs relation to climate change, as well as providing a more in depth analysis of four themes of this relation: “impacts of football on climate change; football and climate change adaptation; football as a driver

for pro-environmental actions; and the relationship of football to fossil fuels" (Mabon, 2023, p.315).

Within these four areas Mabon identifies critical aspects that need to be dealt with for evidence based response in policy. For football's impact on climate change, Mabon identifies that travel and transport is the single most important aspect to combat football's relation to climate change. Mabon further concludes that an evidence-based response would need to account for better scheduling and land transport as key policy-priority (Mabon, 2023, p.324-325). As for climate change adaptation within football; Mabon concludes that extreme weather, such as extreme heat, is of particular concern. Investing in planning for infrastructure as well as upbringing protocols and standards on player welfare is thus important (Mabon, 2023, p.325).

Regarding pro-environmental actions within football Mabon presents the arguments of Amann and Doidge (2023), which Mabon also refers to, that in order to engage inhabitants of football it is key to be aligned with the particular identity and the broader culture of football (Mabon, 2023, p.325). Lastly Mabon finds that football is related to fossil fuels and carbon intensive industries. Mabon here concludes that money within football not too rarely comes from businesses and even nation states that are carbon intensive. However, for approaching decarbonisation pathways in a just way one needs to be aware of how places' identity and financial stability within football historically have been related to carbon industries. In order to be ethically legitimate, transition thus needs to be approached in a mindful and just way (Mabon, 2023, p.325).

1.4.1 This study's contribution to the field of research

This study could in one way be said to be a synthesis of the studies presented above. It is closely aligned with Amann and Doidge (2023) in that it accounts for cultures and identities in relation to carbon emissions. However; whilst the Amann and Doidge study deals with a relatively niche part of football, campaigns and fans, this study takes on more of a holistic approach to the study field, closer to the research of Mabon (2023). It is here important to note that this study moves beyond the particular case of football, as it intends to theorise a concept that is applicable on football however not excluded to it.

Investigating football functions in this study primarily as a way of deepening an understanding of the theoretical contribution as well as visualising some of the concepts.

However, at the centre of Amann and Doidge (2023), Mabon (2023) as well as this study, is approaching a relatively understudied area of climate concern, which are these inherently cultural sites in different ways related to climate change through their carbon-embeddedness. I believe this study fills a gap in research in the way it aims to connect the cultural aspects of emissions to the broader picture of whatever one turns to investigate, in this instance - football. I deem this study to further fill a gap in the way it, while it indeed investigates football, aims to move beyond this particularity. This study's theoretical contribution is intended to be worked out in such a way that it is applicable to different topics fitting the theoretical concepts.

1.5 Background

Governing climate change within football has been on the uprising since UEFA's (The Union of European Football Associations) sustainability strategy (2021) with nation associations following in those footsteps (DBU, 2023), as well as clubs governing football gaining attention from the United Nations Framework Convention on Climate Change (UNFCCC) (UNFCCC, 2023).

In this segment I will present a few key insights on climate politics - in relation to the different excursions I later turn to discuss - but also related to the initial part of theorising realms of carbon. I will further provide a brief background to these interventions so that the “excursions” can focus on precisely the interventions. If unsure about what something means - or why something is a matter of climate politics - when reading the following text; the reader should be able to revisit this segment in order to better understand.

1.5.1 Climate policy insights

When I turn to discuss interventions around Forest Green Rovers (FGR) the discussions deal with getting rid of meat in association with the clubs' matches as well as the planning of their new stadium, and I will now briefly go into why these aspects are of

environmental concern. Both parts are further relevant for the theorising segment on realms of carbon.

Food production stands for 26 percent of global GHG emissions and half of that cut is due to animal products. In decarbonising the meat sector there are two main visions; making meat differently and going without meat. The first suggestion is the idea of rethinking the entire supply chain of producing meat, from sustainable farming to fossil free transport. Going without meat is the idea of switching to meat-free diets such as vegetarianism and veganism. This does not have to mean getting rid of the *idea of meat* entirely, there are for example many “meat-substitutes” that have become popular in recent times (Bulkeley et al., 2022, p.44-48).

As for the physical planning of sites in general and the club's stadium for this instance, steel has been recognised as the main environmental concern in regards to building. Steel accounts for 7 percent of total carbon dioxide emissions. As for visions for the steel sector it comes down to three main channels of progress. One is technological improvements in steel production to reduce carbon emissions by either capturing carbon in the process through what's called CCU technology, or electrifying it away through the use of hydrogen. Another vision is enabling somewhat of a circular economy from using scrap, recycled steel, since the main environmental concern regards what is often referred to as virgin steel, new steel. The last and most relevant vision for this essay is the option of substituting steel for more sustainable materials such as wood. Wood is deemed a more sustainable alternative than steel however its climate footprint is still very much up to the work around the individual construction (Bulkeley et al., 2022, p.10-16, 20).

1.5.2 FGR

In 2010, when FGR found themselves in financial trouble, the owner of the renewable energy-company “Ecotricity” - David Levy - took over. Levy immediately set the goals to improve the club's environmental impact. Since then the club has gone on a journey of becoming the world's first, and still only, certified vegan club amongst other commitments to improve their environmental status. In 2015 they announced their biggest plans yet regarding the environment, in the building of their new stadium with

accompanying facilities. In the process of realising this site, they are today (FGR, 2023d).

1.5.3 DBU

In 2023 the Danish Football Association (DBU) launched their strategy plan for sustainable football aiming at 2025, a project with its roots dating back to 2014 when DBU first incorporated sustainability into their work under the slogan “En del af noget større” (Anders Kjaer, DBU, 2023) which translates to “part of something bigger”. Specifically the strategy plan was largely conducted in response to the Union of European Football Association (UEFA) launching a similar one in 2021 (Anders Kjaer, DBU, 2023) (UEFA, 2021). This strategy is part of the UEFA-concept FSR, Football Social Responsibility, and when the DBU translates this term they define it as sustainability. Sustainability according to DBU concerns three sorts of sustainability; health, social and green sustainability. These three areas are divided into 11 ‘sustainability players’ in other words - subcategories. Four of those ‘players’ are dedicated to green sustainability, player 8-11, and those are; circular economy, green transition, sustainable events and infrastructure (Anders Kjaer, DBU, 2023). Some interventions within these areas will be discussed in the segment on DBU.

2 Theorising Realms of Carbon

In this segment I will turn to conceptualise this essay's theoretical contribution - realms of carbon. I will do so by drawing on three different theories, namely; *Cultural Political Economy* by Jaquelin Best and Matthew Paterson (2009), *Petro Culture* by Imre Szeman (2019) and *High Carbon Lives* by John Urry (2008). The different theories, in different ways, add to what this essay and the concept of realms of carbon deem to be missing in our common way of organising carbon emissions which policy follows upon; namely the aspects of culture and identity. By drawing on the different theoretical insights of these dimensions of our political and economic lives, I intend to provide a broader view on sites of climate politics by incorporating cultures and identities' roles in producing as well as sustaining carbon use - generating carbon emissions.

As for the structure of this segment I will not go through the theories step by step to then summarise. Since the aim for this segment is to conceptualise *this* essay's theoretical contribution, I will more so outline the concept of realms of carbon by continuously drawing on insights of the different theories. By the end of this segment the reader will have a brief understanding of the three different theories that I draw on. Nevertheless hopefully an extensive understanding of the concept of realms of carbon and where it derives from. I will further provide some empirical examples to the theoretical concept. This contribution shall not be seen as any deeper analysis of different realms of carbon but rather a way of anchoring and contextualising the theoretical concepts in order to provide deeper understanding of them.

2.1 The cultural contribution to the political-economy

Whether it is studying the war on terror, tourism, or as for my case climate change, the study area of social sciences has traditionally been focusing on two key aspects; the economic and the political. As pointed out in the introduction to this essay - realms of carbon are indeed realms of production and consumption - which are of course inherently political-economic practices. However, specifically practices of consumption are often legitimised only through existing within a specific *culture* (Best & Paterson, 2009, p.1) as is the case with realms of carbon. To understand a certain realm of carbon in which production and consumption leads to carbon emissions one must thus turn to see the larger culture - “in its broad sense of the meaning that we give social life and material objects, and the concrete practices that they enable and depend for their sustenance” (Best & Paterson, 2009, p.3).

If we take a brief first glance at the world of football we could understand this premise better. It seems evident through accounts such as ‘Footy Scran’ on the app X with nearly 600 000 followers, that food consumption is a major part of going to see football. The account shares its own, and reposts others', experience of food at football grounds all over the world (@FootyScran, X, 2023). We know that some foods are carbon intensive so in order to grasp the world of football, its emissions and how its carbon embeddedness is

being sustained, it might be fruitful to look at this inherently cultural aspect of the realm - consuming food in association with football.

To further move the vast term of culture closer to the concept of realms of carbon, we can partly think of culture within these realms as *carbon intensive consumer practices* that form identity. Yet it would not be satisfactory to solely regard the consumer's purchase as such, and for example its relation to energy use and by extension carbon emissions. We have to regard all carbon-relevant social practices in association with the purchase - within the realm of carbon (Urry, 2008. p.54-55). Take for example the instance of going to see a concert. It is not only the concert as such and its use of electricity for its stage show, to be consistent with the example, that matters - but all social practices surrounding it. To use some of Coldplay's categorisation; buying merchandise, consuming food, managing waste and the travel of fans (Coldplay, 2023) - all contributing to forming peoples' identities (Urry, 2008. p.54,55).

To return to the quote provided in the end of the first paragraph of this segment - it is important to not limit oneself in use of realms of carbon. Although delimitation is key to conducting study one should in this instance not limit themselves in what to look for in the realm, uncover everything, if possible, relevant to carbon. A quote from John Urry (2011) could help to emphasise the importance of this “[...] identities are formed through purchasing, using and making symbolic capital out of purchasing consumer goods and services produced by others within large energy-intensive factories, offices, shops and places of pleasure”. We must thus seek to uncover what these identity-shaping practices are, and in what physical places they exist in. Questioning as much as one can within reasonable relevance should be seen as an important aspect.

These practices dependent on high carbon use within realms of carbon are often *habituated* practices, formed and structured by routines of social practices. Necessary is thus to identify habituated practices that are carbon intensive in themselves and once again exist in, or depend on, carbon intensive places (John Urry, 2011, p.55). In other words one needs to uncover both actual practices, close to the individual within the realm, but also the material, what the *physical* place is. If the realms of carbon is culture and

identity, an extension of the self, and if that extension is carbon intensive - one should think of disrupting this in as much of a holistic way as possible.

2.2 On carbon

Realms of carbon accounts for the culture in climate politics, an aspect that in large parts has been missing in analysis of social science phenomena, including climate change. In this segment I will outline an important contention to realms of carbon which is how precisely *carbon* is related to culture as well as our political-economy.

As culture has been a missing aspect to understanding carbon - carbon has largely been dismissed in our representation and research of our modern culture and politics (Szeman, 2019, p.6-7). Realms of carbon take on the almost epistemological and ontological standpoint of viewing modernity and humans as such, although in different degrees, as carbon fueled living beings (Szeman, 2019, p.10-11). This equally in how modern culture and politics are set up today, as well as our preoccupation with a *future* good life, fueled by carbon. This is the stance in which realms of carbon derive from, the view of modern life, in varying degrees, fueled by carbon. The theory as such, thus has a fundamental critical approach, in uncovering this relationship in order to change it.

Use of fossil fuels are the single biggest source of GHG emissions produced, and uncovering cultures dependent on them is critical to decarbonising society (Szeman, 2019, p.11). However, uncovering a realm of carbon is not satisfactory. If one seeks to uncover realms of carbon in quest for decarbonisation of society then one must provide other theories to discover how the realm could be disrupted. Nevertheless linking culture to carbon is in itself an important task and an initial step in order to end the separation in representation, as well as research, of our culture and carbon - and moreover moving towards changing and getting rid of the connection entirely.

An example of carbon being a part of modernity is how life has moved beyond the neighbourhood. In this shift - movement, questions of mobility, and mobility provided by carbon becomes a concern, both movement of goods and people (Urry, 2011, p.55). Realms of carbon are of course no exception to this, movement within the realms needs to

be uncovered. Turning to football again, previous research as I have touched upon, suggests that transportation is the single biggest environmental concern in reference to football (Mabon, 2023, p.325).

2.3 The changing cultures

Considering the cultural while discussing the political economy has another important function. By regarding the culture in discussing realms of carbon we can better understand how patterns of consumption and production GHG emissions change, and furthermore how they could be changed (Best & Paterson, 2009, p.1-2,19-20). If patterns of production and consumption are reduced to solely a matter of ‘self interest’ and ‘rationality’ we can not grasp how those are constantly redefined (Best & Paterson, 2009, p.2), within realms of carbon. The cultural aspect is needed to understand change, and in terms of realms of carbon, important to understand the realms' changing relation to carbon.

We can provide another example here through again; glancing at our later unit of analysis - football. In 1988 the Swedish team Malmö FF played a series final, one last game to decide the season, in front of 8175 spectators in a stadium with a capacity of hosting 26 500 spectators (FootballSweden, 2023) (Malmö Stad, 2023). As recently as this year, the same team Malmö FF played under identical circumstances, the last game of the season crowning the champions, with both teams having the chance to become it. They did so in front of 21 562 spectators, leaving no seats empty (SVT, 2023). What this vast increase in fans is due to I have no intention to find out, however I deem it points to that cultures change. A large turn out then was for some reason not culturally important, in ways it seems to be now. This has consequences for realms of carbon - they are changeable - and thus governable. Furthermore there will always be reasons to revisit them due to their unstable nature.

2.4 The (“birds-eye”) indifferent culture

Culture is no homogeneous phenomenon. One in cooperation with realms of carbon can thus never uncover the whole realm, with its consumer practices depending on carbon and so forth - if not taking an excessively small unit of analysis and likely then losing

relevance. Taking football for an example, one is faced with the fact that social practices in detail must differ a lot, from travelling to the game, perhaps eating at the game, or the football clubs cooperation with companies. Although this is all true I would want to emphasise in this segment that while cultures are inherently different from one another, as well as within one another, they do have a homogenising dimension to them (Best & Paterson, 2009, p.7).

While different in detail, if taken the birds-eye-view cultures often share a fairly similar identity (Best & Paterson, 2009, p.7-8). In terms of realms of carbon one could presuppose that sites within the realm and thus the realm in large face if not the same, similar challenges. If turning again towards football, people within the realm likely participate in similar carbon practices; travelling to the stadium, consuming food in connection to the game and so forth, although in different ways. The aggregated challenge of decarbonisation must thus not differ immensely. Hence, although one can not grasp the entire realm and its complexities, one should be able to discuss the challenges to decarbonisation within the realm of carbon in a fairly holistic way.



Figure 2. Four images portraying football's indifference in culture taken the birds-eye-view. Top left image shows fans of Urawa Reds (Japan) [In colour online, see https://www.google.com/url?sa=i&url=https%3A%2F%2Fm.youtube.com%2Fwatch%3Fv%3DMZjWLOCv-Mk&psig=AOvVaw28qCb0o_PNS3912oXBU89J&ust=1704042511728000&source=images&cd=vfe&opi=89978449&ved=0CBEQjRxqFwoTCMiV1JjTt4MDFOAAAAAdAAAAAABAI] top right AIK (Stockholm) [In colour online, see <https://imgk.svenskafans.com/articlemedia/image-original/1779933.jpg>] bottom left Wydad Casablanca (Marocco) [In colour online, see https://miro.medium.com/v2/resize:fit:828/format:webp/1*hOJGn8EUUe6cDKWAn5RQTw.jpeg] bottom right Boca Juniors (Argentina) [In colour online, see <https://footballhost.com/cdn/shop/articles/Bombonera-min.png?v=1697637876>].

Source: top left - *Ultras-Avanti*, top right - *Svenska fans*, bottom left - *Medium*, bottom right - *Fotballhost*

3 Disrupting Realms of Carbon

Accompanied with realms of carbon this essay needs more of a policy-oriented theory to examine interventions to a realm of carbon, in this case the world of football. In working in parallel with such a theory and realms of carbon - while analysing interventions - this essay can ‘best case’ come a bit along the way in its aim to advance an understanding of where, how and by whom the forms of governance needed to decarbonise society emerges. To analyse the interventions I will use the work of Steven Bernstein and Matthew Hoffmann (2018) on “subnational climate experiments”. Bernstein and Hoffmann's work focuses on, perhaps understood, experiments. Experiments are forms of policy-instruments aiming to break carbon lock-ins, they could for example take place in cities (Bernstein & Hoffmann, 2018, p.189). The interventions this essay will analyse are not experiments per say, however I will argue that the concepts Bernstein and Hoffmann uses to analyse experiments could be transferred to look at interventions within realms of carbon. In this segment I will outline those concepts, the idea behind them and how they can be related to realms of carbon.

Bernstein and Hoffmann conducted their study in order to: “develop a framework to explore the efficacy and possibilities of disrupting carbon lock-in through subnational

experimental pathways” (Bernstein & Hoffmann, 2018, p.191). This in order to further: “make(s) sense of the means through which subnational experiments can catalyse and contribute to broader transitions to decarbonisation” (Bernstein & Hoffmann, 2018, p.191). As far as their aim this study differs little, however the studies differ of course in units of analysis. Bernstein and Hoffmann pay attention to more of our usual suspects of climate politics, cities for example (Bernstein & Hoffmann, 2018, p.192). However I deem this to be of little concern. Bernstein and Hoffmann (2018) specifically mention that their concepts move beyond their units of analysis - experiments: “Here, we focus primarily on subnational experiments but the logic of the framework applies to multiple kinds of initiatives” (Bernstein & Hoffmann, 2018, p.197).

Without limiting ourselves to “experiments” we can use Bernstein and Hoffmann's definition of them to define what we look for in our term; interventions. What we look for in interventions is “a conscious intervention designed to disrupt the current state of the targeted system” (Bernstein & Hoffmann, 2018, p.195). Our system for this essay is the world of football. An intervention according to Bernstein and Hoffman can move along three different ideal-type trajectories. Either; “(1) reinforcement of carbon lock-in, (2) improvement in carbon lock-in, or (3) decarbonisation” (Bernstein & Hoffmann, 2018, p.195). Essentially status quo, slight improvement or complete change. Those ideal-types will be assessed when I turn to discuss the chosen interventions.

Bernstein and Hoffmann (2018) further develop ideal-types to assess what interventions target. Those ideal-types serve to guide the researcher in what to look for in the interventions. These target- ideal-types are: Political jurisdictions, market and practices. Political jurisdiction being traditional political policy, market being that the intervention targets more of market-linked actors such as corporations, investors or consumers, and finally practises being more of the cultural aspect of governing individuals as well as the material (Bernstein & Hoffmann, 2018, p.197-198). These ideal-types will as well be addressed. The aim is to in a fruitful way tie them to the political, economic and cultural aspects of realms of carbon, in fact one could think of terms in merely the same way.

Bernstein and Hoffmann moreover develop the concept of political mechanisms that lead to system effects (Bernstein & Hoffmann, 2018, p.200-201) or in our case affects to the realm. Interventions according to Bernstein and Hoffmann can contribute to the political mechanisms of; *normalisation*, *capacity building* and *coalition building*. These mechanisms are separated in analysis however often work in synergy in reality which likely will be evident when explained.

Normalisation should be seen as a change of norms in what we deem appropriate action. Whether interventions come from an institutional level or from individual entrepreneurs they often bear a conscious goal in setting new norms to strive for and thus if successful generates normalisation, a new standard (Bernstein & Hoffman, 2018, p.198-199).

Capacity building deals with the “material, institutional, and cognitive capacities to act on decarbonisation” (Bernstein & Hoffmann, 2018, p.199). It is perhaps not obvious what that is, however one could think of capacity building as interventions growing in strength and influence. Whether it's through direct funding, partnerships between public and private actors or education (Bernstein & Hoffmann, 2018, p.199). If capacity building is growing in strength, coalition building is essentially growing in numbers. Here we pay attention to how interventions spread (Bernstein & Hoffmann, 2018, p.199).

Finally if these political mechanisms are ‘successful’ the system or, again in our case the realm, could witness the aggregated effects of scaling and entrenchment. The effects of scaling and entrenchments could be seen as an intervention growing outside of its own particular case (scaling) and changing the broader system (realm) as well as then sustaining this change making it the new sort of normal, through entrenchment (Bernstein & Hoffmann, 2018, p.201-202). Since the interventions I will go through are recent, and some even future, these effects will not be touched upon in the excursions.

When now turning to a few interventions it is key to declare that not all of these concepts will be used for the different interventions. There could perhaps be complete absence of coalition building within an initiative and hence it will not be touched upon. In other wording; what is found determines what concepts are relevant.

3.1 A few empirical excursions

For this segment I will go on a few empirical excursions to visualise realms of carbon as well as enhance an understanding of them and further how they could be disrupted.

3.2 The greenest football club in the world

I will now go on an excursion to the by FIFA (International Association Football Federation) proclaimed “world's greenest football club” (UNFCCC, 2023). FGR was awarded the “climate action award” in 2018 by UNFCCC for: “bringing eco-thinking, sustainable living, and renewable technology to football fans” (UNFCCC, 2018). I will turn to two of their interventions while continuously relating these to the theory of Bernstein and Hoffmann (2018) as well as the broader concept of realms of carbon.

3.2.1 Eat vegan

FGR is self proclaimed “world known” for being a vegan football club (FGR, 2023a). They only provide vegan food at their stadium, for both fans and players, and they make players bring vegan food to their away-games (FGR, 2023a). Why did FGR implement this policy? Here is a direct quote on why: “We decided to become a vegan club because of the huge environmental and animal welfare impact of livestock farming, as well as to improve player performance and give fans healthier, tastier matchday food” (FGR, 2023b). I believe there to be numerous things to discuss here in relation to the theoretical framework.

First and foremost, let us point out what ideal type of intervention this is according to Bernstein and Hoffmann. I deem this to be an example of intervening to disrupt *practices* even though one also could trace elements of *market*-interventions which I will come back to. FGR seems to have identified a practice within its operation that is harmful to the environment, namely consuming animal products in association to their games, whether fans or players. We know that food production stands for 26 per cent of total GHG emissions and further that more than half of that cut comes from animal products (Bulkley et al., 2022, p.44). Hence, one could find this a well-founded intervention if

aiming to *uncover and change* one's relation to carbon, a key concept of realms of carbon. One could also frame this intervention in terms of changing *carbon intensive consumer practices*. However FGR is seemingly not focused on *changing* the culture as such, quite the opposite; they make a point of emphasis that it stays the same although the animal products are taken out. They for example stress that they haven't stopped serving burgers and pies (FGR, 2023b). If interpreted correctly, previously products of meat.



Figure 3. [In color online, see https://images.ctfassets.net/f42palj7pq2p/23W4M9SLw56pYm2znBz676/9718506bc7d02c3ba205e9fld63e7b68/Spicy_Vegan_Burger_1_reduced.jpg] Image of Forest Green Rovers “Spicy Vegan Burger” .

Source: Forest Green Rovers 2023 (b).

Although not changing the culture completely but rather disrupting its relation to carbon, I deem it possible to speak of this intervention in terms of normalisation, which a quote from a FGR fan can visualise - “For me personally it's not the main thing (vegan food), I kind of come more for the football, but I think it's good the way they're going. I'm not vegan but I like the food” (Radiosporten, 3:30). I deem this quote to exemplify two things, it points to the concept of normalisation in that it has had the effect of enabling a new standard for the consumer, this fan. Furthermore I deem it to exemplify the workings of cultures' effect to the political and economic, culture embeds carbon in a different way.

The fan is seemingly not reflecting on practices around going to see football, the fan simply comes to see the game however, nevertheless, if true to his words, takes part in the *consumer practice* of eating food. In this sense the intervention uncovers the culture's relation to carbon and perhaps, through hinting that he enjoys the change, perhaps even alternates the perception of his identity.

Lastly one could further think of the vegan intervention in terms of market and capacity building, although not as evident as the argumentation above. Nevertheless FGR have attracted sponsors in line with what they are attempting to accomplish with their vegan policy (FGR, 2022b). They have, through the *market*, created a space of cooperation that further enables their transformation - growing in strength essentially - which one could think of as the concept of capacity building. Furthermore fans consuming food are of course customers which speaks to the market-dimension of the intervention.

If we were to assess the vegan intervention according to the ideal-types of what trajectories an intervention could follow; reinforcement of carbon lock-in, improvement or complete decarbonization, one must, although a thought provoking intervention, merely see this intervention in the light of improvement. This should not be of any surprise and does not need to be dwelled upon too much. The vegan intervention gives us, in relation to realms of carbon, interesting insight on how cultures can change and how consumer practices - that are habituated and carbon intensive - can be disrupted. However, it is merely an improvement since it deals with a fairly marginal carbon-post within the realm (FGR, 2023a). Further we can not assess just how carbon-neutral this vegan diet is although we know that cutting meat is vastly beneficial for reducing carbon-emissions within production of food.

3.2.2 The Flagship Development - “Eco Park”

If the vegan intervention to the football club FGR takes account for more of individual forms of production and consumption that within the realm creates carbon emission, the project “Eco Park ” (FGR’s future home ground) takes account for the physical aspects of the realm. Within football the physical, the *place of pleasure*, must be seen as the stadium. In this segment we will look for what FGR's, again, self-proclaimed “world’s

greenest stadium” (FGR, 2023c) takes into account in attempting to reach their goal of over time becoming “carbon neutral” (ECOTRICITY GROUP LTD, 2022a, p.39). What parts of the physical do FGR recognise as of environmental concern?

In terms of design, which concerns the actual stadium, one can find that FGR is planning on using sustainable material (ECOTRICITY GROUP LTD, 2022a, p.42) which in this case is almost entirely - wood (FGR, 2023c). In their statement for the work on the actual building - FGR highlights that building emissions stands for approximately 40 percent of GHG emissions (ECOTRICITY GROUP LTD, 2022b, p.19) and they further highlight that: “The development of the site provides an opportunity to provide a showcase for low carbon and sustainable design, and to create a development that people want to live in and work; set within attractive and functional spaces [...]” (ECOTRICITY GROUP LTD, 2022b, p.19). I believe there to be a few interesting things here to extract to visualise realms of carbon and ways of disrupting them.

First and foremost one can simply conclude that; for attempting to provide a carbon detached place of leisure - one must likely deal with all levels of the realm, the political, the economic and cultural (or to use Bernstein and Hoffmann - political jurisdiction, market and practices). For example; in this case by dealing with the district council for the building plan (political), incorporating and accounting for companies (market) as well as providing a place enabling decarbonised practices (cultural). I deem that FGR's - in this sense - holistic work around the project of the Eco Park brings critical insight on realms of carbon. In what sense? It could provide realms of carbon an idea of what a zero-carbon realm could look like.

A couple of quotes from the environmental statement of the Eco Park could help better the understanding of this: “The Eco-Park will deliver a flagship development, meeting the needs of both Forest Green Rovers Football Club (FGRFC) as well as the need for employment and care identified by Stroud District Council, whilst also addressing the local and national agenda of reducing our carbon output” and further... “The Eco-Park will create a regionally important cluster of like-minded companies from the zero-carbon sector [...] The employment floorspace is proposed as a ‘Green Technology Cluster’

which will be for businesses which specialise in sustainable/green technologies and practices, creating a cluster of knowledge intensive businesses” (ECOTRICITY GROUP LTD, 2022a, p.16-17).

If abstracting the fairly detailed quotes I believe it reasonable to see a changing realm here, in this corner of the realm at least. If followed through, since these are only plans, it would seemingly insinuate quite a dramatic change in the realms' relation to carbon. If the original state is a realm of consumption and production - producing and sustaining carbon use - as a part of modernity fueled by carbon and preoccupied with a future fueled by carbon - the vision here emphasises quite the opposite. By inviting the habitants of the realm to the Eco Park, a cluster of companies from the zero-carbon sector, a place of wood, powered by solar and wind, easier accessible by bike and bus, surrounded by 500 trees, 1.8km of hedgerows and meadows surrounding the stadium as well as providing solely vegan food (FGR, 2023c), they are inviting to a realm largely decarbonised.

In reference to Bernstein and Hoffmann FGR will have, if again somewhat successful, created normalisation - a new standard, for the political, the economic, as well as practices. The case of capacity building is also evident through in which way they are expecting to create this cluster of like-minded companies set to approach decarbonisation as well as stating their aim to attract people wanting to work and live within this realm.

If keeping in mind that the Eco Park is still only plans I do believe that one could in a meaningful way bring in the discussion of Bernstein and Hoffmann's ideal-types for intervention trajectories - reinforcement of carbon lock-in, improvement or complete decarbonisation. As touched upon FGR have themselves set the aim for the stadium to be carbon neutral (ECOTRICITY GROUP LTD, 2022a, p.39) and as this excursion has shown - FGR accounts for environmental work far beyond their stadium as well.

Although FGR is accounting for a vast amount of aspects regarding environmental work into their Eco Park, with the end goal of the site being carbon neutral, the project must seemingly be viewed as a vast improvement. There is still for example the concern of mobility, although FGR is planning on both more accessible biking lanes as well as space

for pedestrians, and further public transportation, they also are planning on space for 1700 cars (FGR, 2023c). Although charging points for electric vehicles will be available at the site - FGR can not and will probably never be able to - control precisely the choice of transport of every visitor. While of course contributing to reinforce modern life beyond neighbourhoods, dependent on transport, FGR are noticeably working on enabling pathways for this previously, in large, carbon fueled activity of transporting to a site of leisure such as the Eco Park.

3.3 Part of something bigger

In 2023 the DBU issued an action plan for “Football Social Responsibility” aiming at 2025 (DBU, 2023). In this segment we will make an excursion to the DBU and their environmental work. How does a national union on football approach environmental work, how can we relate it to the concepts of Bernstein and Hoffmann and what does it tell us about realms of carbon?

3.3.1 Prizing environmental work

Under the ninth ‘sustainability-player’ the DBU states that they will conduct at least one campaign aligned with their general goal of green transition by reducing their CO2 emissions from buildings, facilities and activities (DBU, 2023. p.20). When asked what such a campaign could look like Anders Kjaer, senior advisor at DBU, responded that it could be thought to be a sustainability prize, such a prize is stated to be introduced under the segment on green transition (DBU, 2023, p.20). “We give out many prizes in football. I think we have 15 or 20 different kinds of prizes. Everything from the best volunteers to the best club and to the best whatever. And we do it on a national scale and regional, but here [...] our ambition is that we will have a sustainability prize, meaning a green sustainability-prize that we can give out maybe from next year” (Anders Kjaer, DBU, 2023).

Such an intervention, an intervention seemingly targeting practices, could possibly work along the lines of normalisation. The prize would be given to whomever is “best in class” within the field of Danish football, possibly a club or some sort of project (Anders Kjaer, 2023). If successful the intervention could possibly create a new standard for everyone

involved in Danish football to strive for. However in changing a large culture, a realm of carbon in some ways reliant on carbon, such an intervention likely does little. It leaves agency up to others than DBU themselves. Such a prize possibly enables a new standard, new consumer practices or patterns of mobility, however it does not *in itself* set a new standard.

On the other hand it could tell us something about realms of carbon and the politics needed for decarbonisation - since the intervention ties in to previous research on how campaigns need to be constructed to mobilise inhabitants of football on climate change. Campaigns need to be aligned with the culture of football as Aamann and Dodigde conclude (2023), and as Anders Kjaer states the element of prizing things is evident all throughout at least Danish football. This is not any result, as this entire segment, it is only speculative, however interesting to note since the approach restates previous research.

3.3.2 Investigating travelling fans

The DBU has recognised transport as one of the key impacts on climate change from football (Anders Kjaer, DBU, 2023). As far as responsibility the DBU mainly is responsible for Denmark's national games, although they could promote sustainable transport nationwide, to clubs and so on (Anders Kjaer, DBU, 2023). Furthermore DBU as a union is limited in their actions regarding transport, both by the nature of transport in the end being up to individual choice, as well as enabling sustainable transport for individuals being up to the municipality (Copenhagen) and infrastructure providers to govern (Anders Kjaer, DBU, 2023).

However the DBU can and have brought the discussion up to table by investigating just how their fans travel to the national games, essentially targeting *practices*. In doing so DBU found that the primary mean of transport for their supporters, coming mostly from the Copenhagen greater metropolitan area, was public transportation (Anders Kjaer, DBU, 2023), which of course is the preferred sustainable option. The DBU then drew the conclusion that there is no big challenge to be dealt with in this case and that they should refocus their work on transportation towards amateur-clubs, mostly youth players travelling to both training and matches (Anders Kjaer, DBU, 2023).

I deem this intervention to football, in this instance, to tie in to the concept of realms of carbon in multiple ways. First and foremost, as the entire project, it is about bringing to light, uncovering, football's impact on the climate and its relation to our world fueled by carbon. As Anders Kjaer (2023) points out when speaking about the project as a whole it is in the early stages about the need to “measure our baseline” (Anders Kjaer, DBU, 2023) which they have started doing around national matches. In this intervention they have specifically uncovered that within the culture and through the identity-shaping practice of supporting the national team, there is indeed the influx of fans to their matches and hence the concern of transportation, however in large this is done in a fairly sustainable way.

To start to uncover Danish football's impact on the climate as the DBU have done through this intervention, and is seemingly doing throughout the strategy plan as a whole, should be seen as a positive thing if in quest for the decarbonisation of society. To uncover a culture's embeddedness in the fossil is critical to change it, and in DBU's case possibly leads to *improvement* in the different focus areas of the strategy plan. To note here is that cultures as stated earlier are changeable. That DBU chose to focus on another area of transportation is likely wise however as shown through the case of Malmö FF, this relation could very well change. To use Anders Kjaer's wording, it is perhaps important to re-measure that baseline in the future.

4 Conclusion and final provocations

To conclude, this essay has conceptualised realms of carbon in order to better understand the politics of decarbonisation in areas where the carbon, and in extension carbon emissions; is embedded in culture and identity. In doing so this essay has shown that in these areas of our societal life we embed carbon in the way we display our culture and identity - through concrete practices that create and sustain carbon use. Furthermore the conceptualisation of realms of carbon foregrounds that in order to approach decarbonisation in these specific places - the relationship between the culture, identity-shaping practices and carbon, needs to be uncovered and highlighted. These

carbon-generating practices are culturally habituated, standardised, such as transporting outside of neighbourhoods to places of pleasure, or buying food to restate one's identity. It points to the uniqueness of realms of carbon and how carbon is embedded in these societal realms; it is sustained through the extension of the self, the self in 'modern' society, in large part fueled by carbon.

The conceptualisation further remarks that these cultural and identity-shaping practices can change - which points to two things; that they are governable for one, however also unstable, and if to approach decarbonisation of these realms one need to be constantly mindful of how the 'normal' changes. Lastly the conceptualisation notes that a realm could partly be understood holistically due to cultures' homogenising effects, this notion restates the previous research of Amann and Doidge (2023). One should be mindful if to generalise results on for exemple specific interventions to a realm, although one should be able to discuss a realm's relation to carbon in a fairly holistic way.

Through working towards the world of football and interventions there - this essay has developed a deeper understanding of realms of carbon. Governing realms of carbon in the world of football has been shown to exist on club level as well as more of an institutional level within the world of football - though nation associations. Although more so we gained valuable insight on *how* interventions are being conducted.

For this aspect one could note that most interventions targeted practices, perhaps intuitively understandable since cultures and in extension realms of carbon depend on precisely practices. The most evident ideal-type out of the political mechanisms regarding interventions targeting practices could be said to be the one of normalisation. In the light of realms of carbon being constituted on habituated practices this could be seen as a rather profound result. If realms of carbon incorporate habituated practices sustaining carbon use, then setting a new standard for these must reasonably be sufficient. This is perhaps most evident through the case of the vegan intervention. With that being said the realms mostly targeting practices through the political mechanism of normalisation could be concluded to be mere improvements to the broader realm. They do not for example deal with the physical, the material, of the realm.

The intervention Eco Park, which reasonably was closest to the trajectory of complete decarbonisation, worked with all three of the ideal-types for policy-instruments; political jurisdiction, market and practices, and further addressed the physical. The Eco Park-intervention provides an idea of what a zero-carbon realm could be thought to be. A cluster of green production and consumption incorporated into social life accounting for both the material and concrete practices - a 'green' culture.

Now to some smaller final provocations. In the introduction I hinted at what I deem this essay attempts to do. Our common way of categorising emissions into sectors of strict economic and political nature limits what we can think of the politics of decarbonisation. Realms of carbon incorporate culture and therefore open up the analysis and decarbonisation of society to a broader set of actors. However one could reasonably see it the other way around. Realms of carbon may show that inherently cultural sites - are sites of politics and economics. One should at least be mindful of this notion. As much as this essay is about incorporating culture and seeing what it does for the politics of decarbonisation, it may also be about politicising these realms. For in the quest for decarbonisation, these cultural realms, hopefully in this essay shown to be suspects of climate impact and thus climate politics, would be dreadful to leave veiled.

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