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Sustainability as a Species Relational Issue

Vegan Animal Rights Activism in Denmark

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THROUGH THE KALEIDOSCOPE OF SUSTAINABILITY

25 ESSAYS

THROUGH THE KALEIDOSCOPE OF SUSTAINABILITY / 25 ESSAYS

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AGENDA 2030 GRADUATE SCHOOL CO-ORDINATOR

THROUGH THE KALEIDOSCOPE OF SUSTAINABILITY / 25 ESSAYS

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THROUGH THE KALEIDOSCOPE OF SUSTAINABILITY

25 ESSAYS

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THE NOTE

A WHILE AGO, I was listening to a podcast about outer space policy. I remember neither the name of the podcast nor the person speaking, but I remember that sustainability was referred to simply as ”long-term rationality”. While clearly a reductionist account, the fact that we now hear experts on outer space speak about sustainability matters.

NOT ONLY is sustainable development applied to an expanding geography and to ever-increasing issue areas, it is also done in increasingly diverse ways, using a very broad range of approaches across the natural sciences, social sciences, humanities and the arts. And so, when Lund University decided to make a substantial invest-

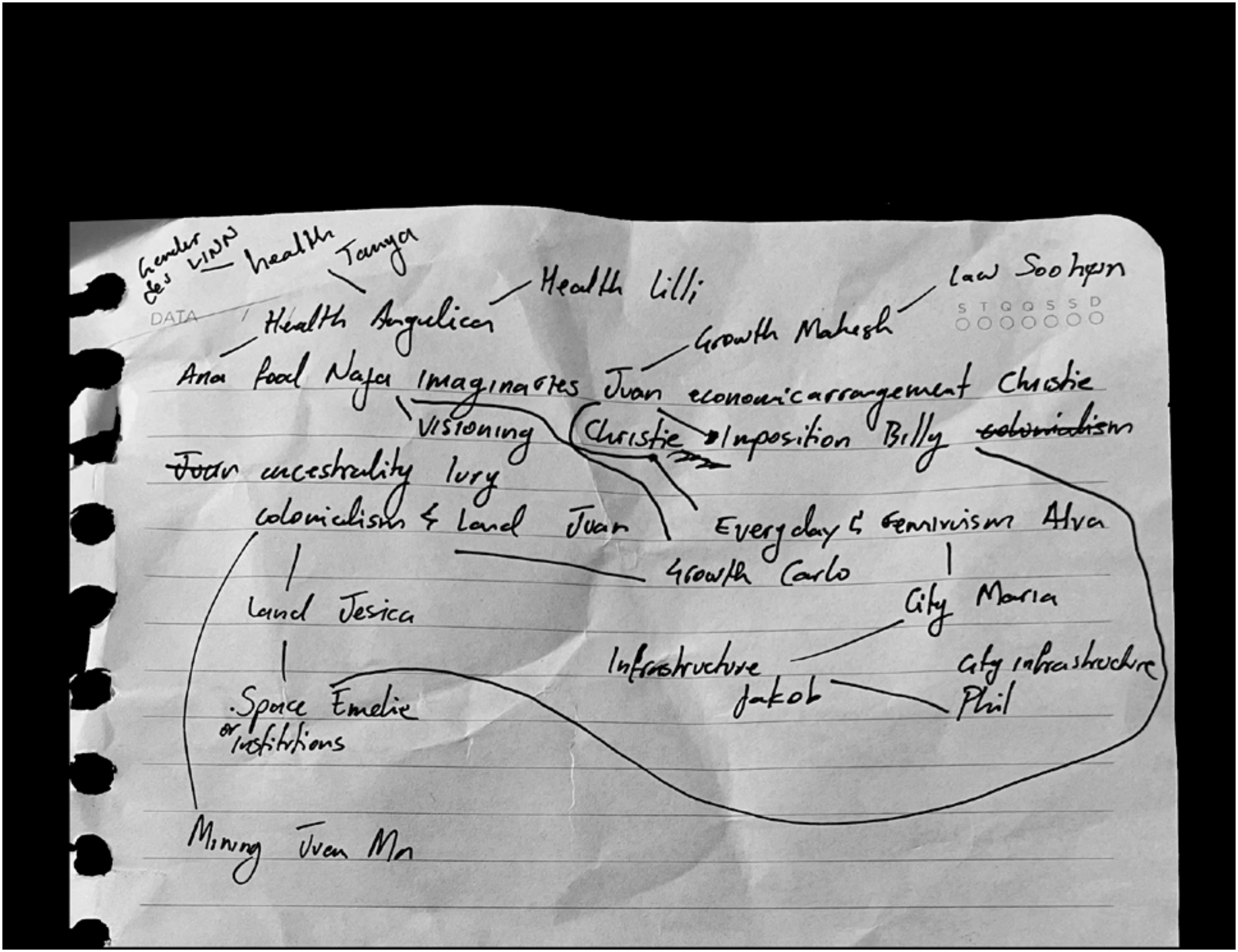
ment in sustainability scholarship by employing and educating doctoral students across the university – thereby setting up the Agenda 2030 Graduate School – a very strong community was created, characterised by both associations and disassociations.

THIS BOOK was conceived in the context of a workshop at the Lund University Malmö Theatre Academy, where those associations and disassociations were put on display. We used our bodies to create patterns based on prompts such as if the work we do imagines sustainability more in terms of harmony or more in terms of conflict, or how we orient ourselves on a continuum of past,

[present] and future. The result was a constantly shifting constellation, one moment of which was captured in this hand-written note by one of the doctoral students that I found much later in a drawer.

IMPORTANT TO note is that the patterns were ever-changing, not primarily because the work that the doctoral students do relates to many different parts of the world, societal systems or areas of life, but because of the approaches to sustainability that they take: whether they are leaning more towards problem-solving or more towards critique or how they imagine the relationship between the local and the global, to mention the two other prompts that we refer to in this book.

The note.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LOOKED AT from some elevated place in the room, the result may have been kaleidoscopic. For each turn of the cylinder, we would see something new. From that standpoint we can say that our outer space policy podcaster clearly was wrong about one thing: by referring to sustainability as 'long-term rationality' in the singular.

THIS BOOK is a celebration of the community that is the Agenda 2030 Graduate School, but also a testament to the complexity and diversity of scholarship on sustainable development. Some time ago, Formas – the Swedish Research Council for Sustainable Development – described the many tasks for science on sustainable

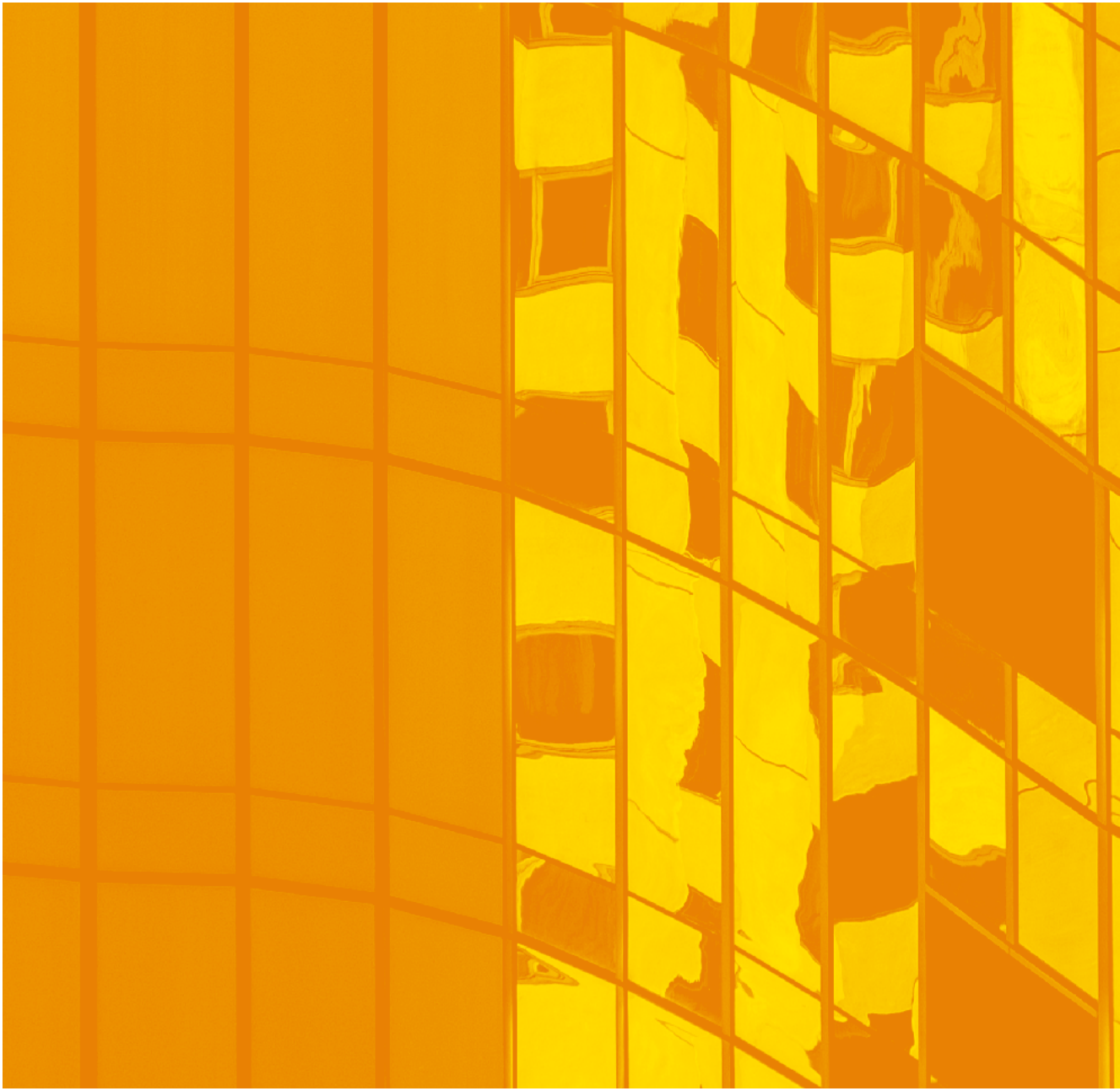
development: to characterise and diagnose problems, to provide solutions and create dialogue, to coordinate and create learning opportunities for the whole of society. They also identified the need for critical analysis of sustainable development and the efforts to achieve it, on the assumption that how we currently think and act on sustainable development may not be able to achieve it, may take us in the wrong direction.

THE LUND UNIVERSITY graduate school represents all of this, and more. Having the responsibility to nurture this community of scholars and ideas is an enormous privilege. It should be recognised that the university

could have chosen a different form for its investment, such as allocating it to an already established research environment or very established scholar in the name of research excellence. The result of that, however, would clearly have been different. And if we are to think about sustainability in its full breadth and complexity and, above all, if we think that the world needs new problem formulations, ideas and solutions, the chosen model was at the same time bold and wise. The result was research excellence from below.

Markus Gunneflo

25 ESSAYS




PAST
PRESENT
FUTURE
01:

BY CRITICALLY EXAMINING the impact of past decisions, as well as responsibilities and aspirations for the future, this section fosters a deeper understanding of how each moment and what we do with it contributes to shaping both the world we inherit and the one we leave behind.

THE INTERSECTION of the different academic perspectives underscores the complex, interconnected nature of sustainability, urging us to consider how actions taken today will resonate across time, influencing the well-being of both current and future generations.

BREAKING AWAY from linear historical accounts, Alezini Loxa's contribution looks at sustainable migration as a spectre haunting European migration law's present and future. Alva Zalar explores queer glitches between coherent visions of a sustainable urban future, and the messy heterogeneity of everyday life in cities. Iury Salustiano Trojaborg

presents an analysis of her performative work on ancestral dramaturgies that bring awareness to feminist and queer empowerment as a means of questioning colonial structures of power. Linn Ternsjö examines the uneven temporal impact of structural dependencies in export-oriented garment manufacturing and how 'sustainable development' discourse may even risk sustaining these inequalities. Juan Ocampo argues that oppressed communities need to liberate themselves from conventional financial systems, emphasising organising activities that re-signify, dignify, and constitute systems that meet their needs. Finally, Steinunn Knúts Önnudóttir presents a time-traveling performance-text revisiting Strings, an artistic research performance project that explores relations through time using performative encounters as a method. Focusing on the present actions that influence our future.

→

SUSTAINABLE MIGRATION HAUNTING EUROPEAN LAW

Alezini Loxa
/ Faculty of Law

FROM THE MIGRATION 'crisis' of 2015–2016 onwards, sustainable migration has appeared in EU policy discourse as the new main goal for the future.[1] On a first reading, the term sustainable migration carries a positive connotation. After all, who would be against sustainable migration? The catch in answering this question, however, lies in the fact that nobody knows what sustainable migration is. The term sustainable migration has no clear meaning, no generally accepted definition, and the concept does not create any binding legal obligations for international migration in general and for EU migration specifically.[2]

This is why I consider sustainable migration as a spectre that is haunting European law. The figure of the spectre is inspired by Derrida and it is taken to connote a thing that shapes the present as permeated by an elsewhere, but in a way that is elusive.[3] The figure of the spectre in the work of Derrida points to the need for historical work as a means to understand the implications of the past to the present.[4] Such historical work needs to be focused on the traces or effects of the past to the present, rather than in a search for an absolute origin or for a deterministic history.[5] The spectre itself does not have an objective history, yet it operates as a force with effects on how we can imagine our future.[6] While the spectre disrupts the linearity and causality of time, it does not abolish the division of past, present and future.[7] Rather, as Brown suggests, it indicates the way in which the future

is always populated with certain possibilities which constrain it and which all come from the past.[8] In Brown's words, the figure of the spectre indicates that 'the future is haunted before we make and enter it'.[9]

In my work, I have traced sustainable migration in a longer past of European migration law. In so doing, I have revealed the limitations and constraints that sustainable migration has for future law-making. To put it in another way, I have investigated the way in which sustainable migration is haunting European law. To do that, I examined how the economic and social pillars of sustainability have affected the attribution, extension and limitation of rights for EU and non-EU migrants from the 1950s to the present.[10] The historical investigation revealed that sustainable migration can be traced back to the origins of EU law and it has a very concrete expression. It means the protection of all those migrants whose work is urgently needed for the development of the EU and the exclusion of the vulnerable, the precarious, and all those that cannot access EU territory to begin with.

Despite the recent appearance of sustainability as a goal for EU migration policy, the balancing of economic and social considerations has historically haunted EU law and has shaped a legal system with very specific characteristics. These are the attribution of rights to migrants due to their contribution to growth, the limitation of their rights due to perceived risks to

growth (without due consideration of whether such risks are evidence based or not), an emphasis on work-related rights as means to social progress without a broader conception of the human being behind the economic actor, and the incorporation of clauses to guarantee that there is always a safety valve to stop migration in case of threats to the economy.

These characteristics point to inherent limitations in the way migrants' rights are construed at EU level which relate to the undue emphasis on growth and the notion of rights as equal opportunities. These limitations reveal the inherent constraints of an EU sustainable migration that are haunting the practical possibilities of a future. At the same time these limitations have not guaranteed a just system, as those that are most vulnerable are not deemed worthy of protection. But how could we imagine a more just EU migration law? To Derrida, justice is the 'practice of responsible relations between generations'.[11] Brown interprets this as meaning that '[j]ustice concerns not only our debt to the past but also the past's legacy in the present'.[12]

The legacy of sustainable migration to the present of European law and how it constrains our future is clear. However, understanding how the past figures in the present also opens the stage for a battle over the future.[13] Such battle needs to be based on things other than law, and this is because justice in legal terms repeats the fundamentals of the current order.[14] A key force

that would have to be conjured to overcome the current limitations would be the reconsideration of economic growth as the reason behind the attribution, extension and limitation of rights.

Maintaining the focus on migration for economic growth can only get us so far, especially in times when the prevalent climate catastrophe points to the limit and finite nature of resources. At such times, 'disposability becomes a more, not less, likely experience'.[15] In order to overcome this, we need to be able to renegotiate the position of economic ordering in EU law as well as the position of migrants in view of their human rights and the place of social policy at times of an untenable aspiration of growth. If we want sustainable migration to deliver a better future for EU migration policy, what is needed is a break from the past, rather than a continuity which the concept encapsulates.

¶

SUSTAINABLE URBANISM IN GLITCH

QUEERING SINGULAR VISIONS OF SUSTAINABLE URBAN DEVELOPMENT

Alva Zalar
/ Faculty of Engineering

SUSTAINABILITY is increasingly framed as a task to be solved in and through cities[1], not least by planning and designing built environments that 'nudges' individuals towards sustainable ways of living[2]. Realising visions of a sustainable urban future is thus at least partially dependent upon affecting individual and collective behaviors. So, what happens when coherent visions of sustainable urban development appear to be *in glitch* with the messy heterogeneity of everyday life? In this text, I will show some examples of such glitches from studies of the large-scale sustainable urban development (SUD) project Hyllie in Malmö, Sweden. While lacking coherence between vision and everyday life can appear threatening to the trajectory of a sustainability transition, I argue that it can also be seen as a queer opportunity to facilitate transformative change in a manner that supports diversity. Here, queerness is broadly defined as the existence of difference – an existence that in itself reveals that taken-for-granted 'truths' are merely norms which can be negotiated and subverted.[3] In this ethos, queer theory can help to orient sustainability towards transformative change through the transgression of norms.[4]

Hyllie is one of Malmö's largest urban development projects, with plans to accommodate around 25 000 inhabitants by 2040. The idea to build a new city district on the agricultural land of Hyllievång was ignited by the 1991 agreement between Sweden and Denmark to build a bridge across the

Öresund strait, which made land close to the planned bridge abutment strategically important. The new regional communications enabled a new train station which was placed in the midst of the open farmland, marking the center of this future city district. With a clear distance from existing adjacent neighborhoods, with different suburban and rural characters, Hyllie began to take form as a strikingly vertical urban island (fig. 1).

Early visions for Hyllie, largely driven by a few ambitious entrepreneurs and property developers, talked about the creation of an interconnected regional node for consumption, events and entertainment. The visions became more spectacular over time, and incentives for further economic investments were increased simultaneously. Ambitions for Hyllie to become a sustainability frontrunner, now a dominant identity for the urban development project, entered slightly later which resulted in some interesting tensions. The different visions for Hyllie, emerging over time, are spatially visible in the array of spectacular buildings with different profiles that have been added to the city district center, all important to materialize a certain sense of identity and image for the area. Central Hyllie is built around the train station (opened in 2010) and a main square, surrounded by indoor stadium *Malmö Arena* (inaugurated in 2008), shopping mall *Emporia* (inaugurated in 2012), hotel and office complex *Point Hyllie* (finished in 2019) and sustainability innovation project *Embassy of Sharing* (currently under construction). Expanding

Figure 1. Hyllie in February 2019[5], developed from a central core ‘outwards’.

Figure 2. Vision collage for Hyllie.[10]

'outwards' from this central core, Hyllie is taking the shape of a dense, urban and mixed-use city district – morphological properties closely connected to sustainability.[6]

Ultimately, Hyllie has become a profiled sustainable urban development project built around a shopping mall, a fascinating spatial visualization of contradictions between sustainability goals and how economic development can be fostered in and through climate impact-intensive infrastructures of consumption[7]. While the built environment visibly shows the challenges of merging contradictory values, planning documents manage to smoothen this appearance and tell a somewhat cohesive story about Hyllie and its multifaceted character. The central part of the city district is described as its pulsating heart, while the more recent (and still ongoing) southward extension of the urban development project, including a big city district park, is portrayed as lungs breathing air into the city district[8]. The planning material also contains stories about families enjoying the safe, walkable and quiet green city district that offers both urban gardening and vibrant evenings at local restaurants[9], and visualizations show collages of a vibrant, green, lively and urban environment (fig. 2).

As carefully curated planning-political visions are translated into built environments, glitches become more manifest. And additionally, as urban planning and architecture are not exact sciences, they can produce unintended

side effects, particularly when aiming to guide individual behaviours. For example, investments in bike and pedestrian infrastructures, important to enable sustainable mobility, also provide support for rental e-scooters. This new urban phenomenon (reaching a peak during my fieldwork 2020-2022) fits right into the vision of a flexible, individualized and smart mode of transportation but is also criticized for greenwashing due to an unsustainably short lifespan as well as unjust labor conditions for maintenance workers[11]. Another example of glitch between vision and everyday life is that the car parking strategy, intended to 'nudge' people towards more sustainable forms of transportation, does in fact limit the parking possibilities for residents but provide much greater support for different kinds of visitors to the area – from customers at the shopping mall to travelers from Kastrup International Airport looking for long-term parking.[12]

In different shapes and forms, everyday life appropriates urban infrastructures and subvert intentions, deviate from fine-tuned visions. It is through everyday life that the multiplicity of the present makes itself known, when it cannot be sorted into a singular coherent vision of a sustainable future. Through the process of inhabitation, humans and other living beings visibly impact (once impeccable) architectural surfaces and the environment cannot be maintained according to original intentions over time. Buildings and floors of Hyllie are gradually being covered by infectious greenery such as

mold and algae, shopping carts are left in unexpected places, graffiti tags appear on previously clean facades, benches, trash cans. On social media, some inhabitants have expressed a strong sense of concern for the possibly declining state of Hyllie and these visible signs of unacceptable decay can be understood alongside other perceived threats, such as the presence of nuisance youth hanging out by the convenience store or plans for more rental apartments with allegedly questionable future residents[13]. 'You live in Hyllie because you chose Malmö. But also because you choose something more', is something like a slogan for the Hyllie property developers' organization[14]. The statement is echoed when inhabitants' express on social media that Hyllie was supposed to be 'better' than the rest of Malmö[15]. When reality cannot match these expectations, this can be thought of as a form of nostalgia directed towards a *promised* future, something which only ever existed as a vision but never in reality.

Unintended side effects and glitches between visions and the incoherent messiness of everyday life can appear threatening to the project of supporting new, and more sustainable, norms of urban living. But it can also be thought of as an important critique against neat visions, where contradictions are smoothened, conflicts are non-existent and less desirable urban elements are rendered invisible. While visions can be a powerful tool to

convey inspiring sustainability imaginaries, they must be confronted with their tendency of cohesion, simplification and singularity which fails to correspond to, and support, the very real heterogeneity of any city.

Queering sustainability can be thought of as an 'anti-essentialist, anti-assimilationist and heterogeneous exercise'[16], suggesting that the existence of diversity and multiplicity is not simply a threat but also evidence that the world could, in fact, be very different than what is currently thought of as normal, dominant, inherent, inevitable. This is a promise that sincerely serves the trajectory of an inclusive sustainability transition.

¶

ANCESTRAL DRAMATURGIES

Iury Salustiano Trojaborg
/ Faculty of Fine and Performing Arts

> "Ancestry, in many cultures, is a founding concept, spread and imbued in all social practices, expressing an apprehension of the subject and the cosmos, in all its spheres, from the most intimate family relationships to the broadest and most diverse social and communal practices and expressions. (…) How do the times and intervals of the calendars also mark and dilate the conception of a time that curves back and forth simultaneously, always in a process of prospection and retrospection, of simultaneous remembrance and becoming?" (my translation)[1]
>
> Leda Maria Martins in *Performances do Tempo Espiralar, Poéticas do Corpo Tela*.[2]

I WAS A QUEER CHILD raised by the sea, in the coastal city of Rio de Janeiro, in the Southeast region of Brazil, in a family of military men, in the 1980s, towards the end of the long and dark military dictatorship in which my country of origin was immersed from 1964 to 1985. I spent my childhood trying to figure myself out among machismo and violent reprehension, while witnessing the political and social efforts to bring the country out of a turmoil and into a process of redemocratization. I was also fortunate to be raised by a loving and accepting maternal grandmother, listening to her stories about the far away place she originally came from: North Brazil, the Amazon rainforest and its flowing river.

In this short exposition, I will try to bring attention to a focal point of my artistic practice: ancestrality and the regenerative powers that may arise from it by looking back at one's own lineage. I begin by questioning the Western concept of time, where events are placed in a linear sequence, as if we are progressively moving from obscurity towards enlightenment. To support this idea, I reference the decolonial scholarship produced by Leda Maria Martins, based on the concept of time as a spiral, an understanding that "time can be ontologically experienced as movements of reversibility, dilation and containment, non-linearity, discontinuity, contraction and relaxation, simultaneity of the present, past and future as ontological and cosmological experiences." (my translation)[3]

Martins' scholarship proved to be significant when I decided to delve into the migration journey my maternal grandmother Voinha embarked upon in 1945, traveling some 4000 kilometers by steamship from Ananindeua and Belém, Pará in the Amazon rainforest region in northern Brazil, to Nova Iguaçu, in the suburbs of Brazil's then capital Rio de Janeiro. Two months after I started my doctoral studies, my grandmother passed away in Rio de Janeiro. At that pivotal moment, I decided to look more closely at her life and acknowledge how her migration journey influenced the migration path I, many years later, chose to follow. As Martins precisely puts it: "our experience of the present depends on our knowledge of the past." (my translation)[4]

One of the artistic outcomes produced from this study on ancestrality was the interdisciplinary performance *Feliz Aniversário* (Happy Birthday), presented at the Hebbel am Ufer Theatre (HAU) in Berlin, Germany in 2020. On the occasion of my grandmother completing 100 years old, I looked back at her story by identifying her struggle to survive as a single mother of thirteen children in the Brazilian toxic chauvinist catholic society in the mid-twentieth century. Only after having immigrated from Rio de Janeiro to Doha, Qatar and later to the Northern European cities of Munich, Frankfurt am Main, Copenhagen, Berlin, Malmö and the island of Møn, did I understand that my grandmother's only possible way to survive the violence she encountered in her place of origin was to break free and migrate.

By using personal memories, official documents, memorabilia and video, I brought Voinha to the centre of the stage and supported her in telling her own story of migration. The performance also shed light on the social and historical circumstances in which I grew up in Brazil in the 1980s. What forms of queer identity are possible in a patriarchal, Catholic and militarised society? What role does the feminine play in this context? And where does the border between autobiographical memory and fiction lie? Fundamental to this performance was the assumption that everyone is an archive for experiences and memories of one's own history, as well as for the knowledge of one's ancestors. A store of knowledge and a perspective that is not

necessarily represented in state archives, or is even deliberately erased, such as the history of slavery and its consequences, and the annihilation of the native peoples of Brazil.

While questioning my grandmother about the necessity to migrate and re-create herself in order to survive the gender-based violence she encountered early on, I could identify similarities between the struggles I went through within my own migration journey. Together, two generations of a family shared experiences of empowerment and resistance. With the recent passing of Voinha, the possibility of using language to question and listen to her re-telling and re-creating her own story was suspended. Our communication, though, transcends the materiality of our bodies. Our conversation therefore continues.

This conversation became, inadvertently, the centre of my artistic research practice: how can I generate narratives focused on "contested histories, asymmetrical power relations and legacies of racism, colonization and displacement?"[5] My artistic practice is therefore an attempt to question the way stories are told, by whom and from which perspectives. I am interested in investigating how much the creation and consumption of stories can either perpetuate structures of power, or potentialize the emergence of dramaturgies of care and resistance.

Performance Feliz Aniversário ©Tito Casal; Berlin, Germany: Hebbel am Ufer Theatre, 2020.

Within my research, I understand the performative as a possibility to generate knowledge through the body and via its interaction with other agents, or as Mark Fleishmann states:

"… performance constitutes 'an alterity' that resists the hegemony of the text in the academy. It is a transgression that seeks to break down the separation of subject and object, of body and mind, and therefore it must be either expunged, silenced or policed by the academy (…) What is required is an honest acceptance that the principle of 'compossibility' – fleshes alongside images, sight alongside hearing and touching and feeling and moving – is called for."[6]

When theorizing on performance and performativity, Richard Schechner broadens such concepts by presenting them not as just something that occurs on stage, but also existing on many different levels of everyday life. Performance is an integral part of life, or as Schechner states: "twice behaviour behaved"[7] alluding to the reiteration of the performed action, its repetition in time and as time and duration, as well as its simultaneous ephemeral nature. This coupling of the ideas between performance and time, both constantly in progress, alligns itself with Martins' understanding of time as a spiral, bending forwards and backwards in a continuum.

I conclude this exposition by asserting that I understand the actions performed by my maternal grandmother within her process of migration, such as questioning structures of power, interrogating the status quo and going against the norm, as time bending operations. And when I reflect on them through the lens of sustainability, write about them and transform both our migration journeys into dramaturgical and performative material, I can identify that my research touches upon some of the United Nations' sustainable development goals of achieving gender equality, reducing inequality among countries and promoting justice.[8]

Following this line of thought, some questions arise: how can this research acknowledge individual ways of seeing, and value multiple perspectives on decolonial artistic practices? How can this study use dramaturgy and performance art as tools to reconfigure power relations, creating in this way more just and equitable living conditions with respect for human rights and dignity?

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‘SUSTAINABLE DEVELOPMENT’ SIDELINING SUPPLIER COUNTRIES’ UNEVEN AND DIFFICULT EXPERIENCES OF STRUCTURAL TRANSFORMATION?

Linn Ternsjö

/ Lund University School of Economics and Management

CALLS FOR SUSTAINABILITY and sustainable development have become ubiquitous in international policy discourse. Indeed, pressing universal problems such as climate change, pandemics, and the fact that no country in the world has achieved *both* social prosperity (social thresholds consistent with the fulfilment of essential human needs) and ecological sustainability (staying within planetary boundaries)[1] have led to powerful statements such as "we are all developing countries now".[2] In development studies, we already see shifts toward an agenda grounded in globally shared problems.[3] This resonates with the ambitions of the Sustainable Development Goals. Nonetheless, no matter how well-intended and seemingly progressive this shift is, the narrative risks sidelining context-specific focus on how historical and current processes of socio-economic change really take place.[4]

We see a similar tendency in sustainability discourse and strategies of many private sector actors, not least by those involved in the globalized garment industry (i.e. the production of clothes). Voluntary standards and ethical codes of conduct are nowadays commonly demanded throughout supply chains. Lists of remedies and various social justice initiatives took off especially after 2013 when the Rana Plaza garment manufacturing building collapsed and killed over 1000 workers in Bangladesh.[5] Yet, labour repression and worker subordination, through non-liveable wages and poor and unequal working conditions, are well documented in past and present growth trajectories based on export-oriented garment manufacturing for global

brands and retailers. In fact, workers' rights across manufacturing hubs have even been worsening over the past ten years.[6] One reason is that lead firms (buyers very often headquartered in the Global North) squeeze value out of supplier firms and their workers (located in the Global South). This is also done under the mantle of sustainability demands.[7] While exploitative practices and global dependencies are not new, 'sustainability' practices and partnership narratives do not necessarily address these.

This can be exemplified through the case of Mauritius, an African small island developing state that is often upheld as a success story of late development.[8] Thanks to active industrial policy and transnational networks in the post-independence period, the country was able to diversify its monocrop economy into garment manufacturing and tourism, followed by more advanced services such as offshore finance. Early on, the government called upon its citizens to contribute to its national development plan with ceaseless discipline while job creation and widespread basic social welfare provision were key to earning citizens' buy-in.[9] It structurally transformed its economy, and today it counts as an upper middle-income country that other governments in the region have even sent delegations to learn from. Meanwhile, Mauritius actively markets itself as a partner for ethical and sustainable higher-value-added garments with fair and equal treatment of its workforce.[10]

Nevertheless, this has not always been the case and remains questionable to this day. Up until 1984, the government allowed wage discrimination between men and women for equal work.[11] Ten years later when low(er) wage countries started to engage in production for just-in-time 'fast fashion', garment firms in Mauritius responded in two main ways. Either they relocated abroad – contributing to local unemployment predominantly among women who had earlier joined the industry – or they began importing cheap migrant labour to contain rising worker wages and to survive the globally price-sensitive competitive landscape.[12] To some extent the latter mirrors the colonial practice of mass importing Indian indentured labour to Mauritius' sugar plantations in response to labour shortages preventing profitable exploitation.[13]

It was only a few years ago that labour laws and minimum wages started to be harmonized between export-oriented (garment) industries and those not producing goods for export. Yet, obligatory overtime work up to ten hours per week remains a unique feature of export industries. In parallel, workers have experienced intensified shift work and control mechanisms in their everyday lives against a backdrop of growing buyer demands for certifications and fast delivery.[14] Today, migrants (the largest group of whom are Bangladeshis on guestworker contracts) make up most of the export-oriented garment industry workforce, clearly indicating a form of

social downgrading. More specifically, forced labour occurs,[15] and employees are divided along lines of citizenship where gender also plays a role. For instance, Mauritian men are concentrated in management while migrant workers and older low-educated women are concentrated in low-paying occupations such as machine operators.[16]

What does this mean for the study of development? And what are the practical implications for today's late developers as they join global supply chains and try to 'catch up'? Through the study of Mauritius' garment industry, my research empirically shows that upgrading is not linear and may in fact become increasingly difficult to achieve in practice. Over a period of time it can certainly contribute to economic growth, and (some) garment workers may enjoy improved social outcomes through rising wages for instance. However, this can coincide with other uneven outcomes such as fewer jobs, strict control, and a segmented workforce, all of which represent contradictory processes of capitalist development. It is my hope that these processes can be better understood, and hence acted upon, to genuinely achieve more sustainable futures for all. For that, we will first need to acknowledge historical context and supplier firms' and countries' structural dependencies in development.

¶

ORGANISING MONEY

ACTING IN THE PRESENT, TO INFLUENCE OUR FUTURE

Juan Ocampo

/ Lund University School of Economics and Management

THE FIRST GOAL of the UN Sustainable Development Agenda is to end poverty. The scarcity of money, or lack of access to money to achieve a minimum standard of well-being, is a significant problem that must be addressed if we are to solve world poverty. The mainstream financial system is supposed to help solve the problem of scarcity of conventional money by providing access to money to people who need it. But should people in poverty only be customers of the financial system? I do not think so. I would like to make two points. First, a call for people in poverty to constitute financial systems in a way that works for them. Second, to suggest some organising activities that can help communities to re-signify, dignify, and transform their own financial systems.

Let us begin by explaining why the way money is created by the conventional financial system has several shortcomings[1] for the population in the context of scarcity. First, money is created by banks when they make loans, which, in order to be profitable in the context of scarcity, are made at predatory interest rates. Second, with the vision of "saving for a rainy day," people hoard their money in interest-bearing accounts, which hinders access to and circulation of money in the community. Finally, these savings are usually transferred to economic and financial centers and not reinvested in the community, meaning that money is flowing out of poorer communities faster than it is flowing in. In sum, the conventional way of creating money is not well suited to helping people living in poverty.

Reflecting on the oppressed — that is, people in a state of poverty — the Brazilian educator, Paulo Freire[2], argues that they are not marginalised, but rather have been placed in a structure that oppresses them. In this sense, it is the oppressed who need to create their own financial systems if they want to liberate themselves.

One grassroots financial innovation that can challenge conventional systems is known as complementary currencies, which can be defined as "an agreement, within a community, to use something standardised as a medium of exchange"[3]. A complementary currency is a type of standardised medium, whose primary function is to complement conventional money and connect unused resources with unmet needs in a community of users, thereby enhancing common wellbeing. Complementary currencies tend to emerge in communities looking to strengthen social ties and local socio-economic identity. Complementary currencies have been used to reclaim money-making for the public good and to improve people's access to money so that they can achieve a minimum standard of well-being[4].

Starting with the barter story, there are many approaches to money. Traditionally it has been approached as a neutral commodity or as a social relation[5]. However, inspired by the field of Science and Technology Studies (STS), researchers have recently begun incorporating a socio-technical perspective into the study of money which recognises that money in general, and a

complementary currency in particular, is a system of heterogeneous elements such as ideas (e.g., political-economic ideas), norms (e.g., money creation rules, monitoring rules), people (i.e., users, issuers, and central authorities), and technical elements (e.g., payment technology, notes and coins).[6]

By adapting and re-aligning the socio-technical elements communities regain the possibility of organising the constitution of money in a way that is appropriate to them. Organising money consists of what I define as modulating, representational, and vernacular activities, and each of these activities both influence and are influenced by the process itself.[7] Let me explain and show how these activities can play out using the case of the GFI project in Kenya. Between 2018 and 2023, a group of European and Kenyan researchers, an NGO, and local Kenyan communities came together with the goal of organising a complementary currency. What this example demonstrated was that by building on the knowledge, resources, and needs of the different participants, local financial systems can act in present to influence their future (see Illustration 1).

Modulating activities refer to actions that exert a modifying or changing influence to achieve a desired effect on a monetary system. The question guiding the modulating activities is what does a just monetary system look like? In the case of the GFI, modulating activities occurred when the researchers, leaders, and software developers came together to discuss their

Illustration 1. Organising activities in a monetary system, illustration by Maya Boll.

political-economic ideas, or debates about policies and regulations (i.e., who and how issues, distributes, and withdraws money), discuss the difficulties that the community was experiencing (e.g., lack of jobs, dirty streets, food waste), or planning community projects (e.g., developing a short food supply chain or investing in productive capacity). These activities usually took place in the context of governance and strategic dialogue and debate. It is important to ensure that there is a basic shared economic and monetary knowledge in order for all to really be heard.

But ideas and norms can be abstract, so they need to be materialised. Representational activities refer to the development of technical objects that represent particular ideas or concepts. A guiding question in representational activities asks what type of material elements can we use to influence people's actions? In the GFI project these activities included the development of a digital payment application, the creation of videos to teach people about the complementary currency and the payment application, and the production of brochures to promote participation in the currency[8]. It is the technical objects that interact with people and can, consciously or unconsciously, influence their actions in the monetary system. Therefore, it is important that the local community has the resources to maintain and develop technical objects, else they will be dependent, once again, on external actors deciding for them.

The last set of activities are the vernacular. I use this term to emphasise the localised, culturally specific knowledge and traditions that influence the interactions in the complementary currency. Vernacular activities serve to mobilise individual and collective resources within a monetary system. The most common approach to this will be the exchange of goods and services, but what a monetary system enables goes beyond this. A very telling example in the GFI project was the market days. Here, people met, socialised, traded, taught each other how to use the payment application, and prayed together as a symbol of unity and collaboration. The vernacular invites for the dignification of local cultures and practices, and these activities should help communities to reflect on what makes the community strong? What local knowledges need to be dignified?

Conventional monetary systems aim to keep the status-quo. What organising complementary currencies enable is a process of change. In other words, by acting in the present, communities can re-signify, dignify, and create systems that are right for them, and in this way influence their future trajectories.

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WEAVING TIME THROUGH RELATION-SPECIFIC PERFORMANCE

Steinunn Knúts Önnudóttir
/ Faculty of Fine and Performing Arts

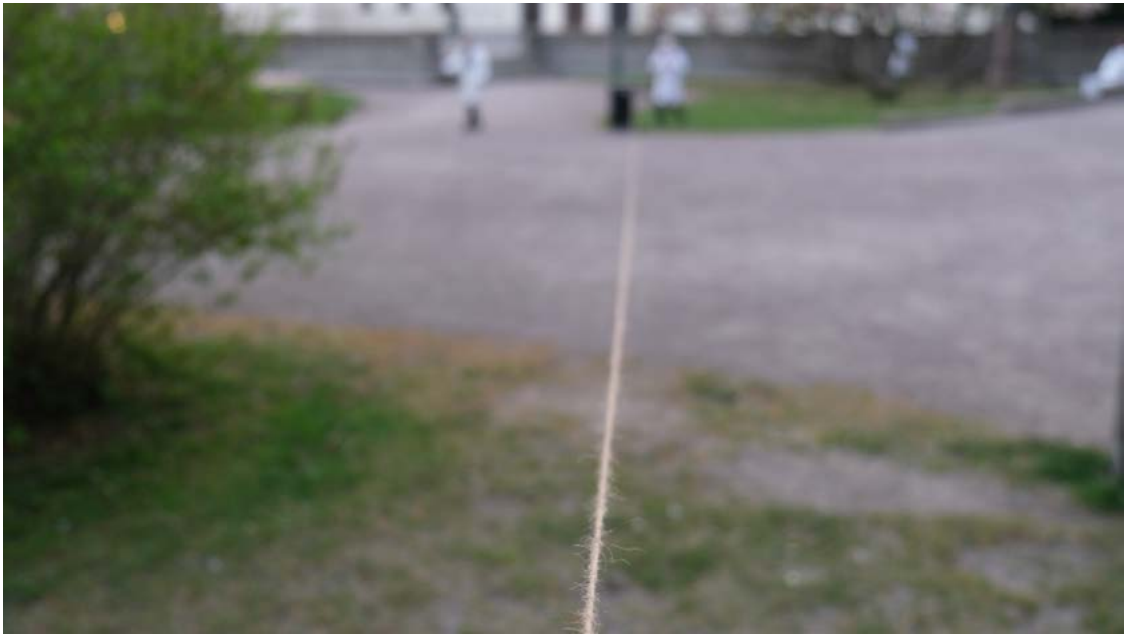
Dear reader,
welcome to a time-travel experience – one that demonstrates how participatory performance can serve as a tool for sustainable development by enhancing existential sustainability, the source of motivation to act in the world.

This text is a relation-specific performance

By engaging with it, you will encounter an artistic research project, the artistic researcher, and your own experiences, ideas, and values. The work will emerge inside you while mirroring images from the past through the present into the future. The work may affect you in a transformative way, connecting you to your ethical compass. The work is uniquely yours, shaped by your surroundings, thoughts, and emotions as you read.

Who am I?

I am the text that will be the vehicle for a series of performative encounters. I will guide you through the work and provide you with images from the past and create visions for the future. Through me, you will hear the voice of Steinunn, the artist researcher, who has created me. In the text you will be invited to participate in the work by engaging with tasks.



Photograph by Charlotte Østergaard.

THE PRESENT

Before we start our journey through time, I invite you to arrive in your body.
Pay attention to your breath.
Observe your expectations for the text you are about to read.
Close your eyes for a moment, and when you are ready return to the text.

Now, we will be travelling to the past.

THE PAST

It is spring in Lund, the year is 2022. Imagine that you are standing in front of the entrance to one of the University Buildings at Lund University. You are here to experience part 1 of a performance called *Strings: A Performative Encounter with Agenda 2030 Graduate School.*[1] You enter the building and step into a big hallway where a woman is waiting for you.

She says:
Hi, my name is Steinunn. The name is Icelandic and is a combination of two words: a stone and a wave. So, my name actually means a pebble – like this here.

She shows you a pebble.

This stone has existed on earth from the beginning of time and will continue to exist to the end of time. We are made from the same material as this pebble – our origins are stardust. For hundreds or even thousands of years it was lying in the sea and got shaped by the waves.

Me too, during my lifetime I have been shaped by waves of events and things that surround me.
Now I am being shaped by this encounter.

I am an artistic researcher, and I am researching this very moment – with you.

I ask you to hold on to this stone during your visit, to connect you to the past and the future. You will be meeting a member of Agenda 2030 Graduate School, and with their research they are contributing to change in their field. The exchange takes the form of a game, with cards that provide you with tasks to solve, things to observe, and questions to deal with. The meeting will take around 40 minutes and you can stop the game whenever you want and leave. Come with me.

Imagine that you are standing there, with the pebble in your hand, preparing to meet the researcher. You have been told that the title of Strings part 1 is: *We are all researchers.*

What does that mean? Are you a researcher? How? Would you be able to make changes in the world, like a scientist?

With these thoughts you enter a workspace, a science laboratory where you meet the researcher. When you are both seated, the researcher reads from a card a story about herself:

Mimicking Nature
I was a creative kid. As a teenager I was doing theatre and wanted to become a photographer. It changed when I visited my aunt's lab, and I realised how creative research can be and that black women have a place in knowledge production. Now I use my creativity in a high-tech university lab where I recreate silk. Instead of taking photographs I mirror Nature's own design and get to explore the role of the silkworm.

The woman asks
What kind of child were you?
What were your interests?

How do you reply? You may start to think about the relation between your childhood and who you are today or you may think about your own children and what will be a turning point in their lives. You share your thoughts with the researcher.

Together, you solve various tasks through conversations, observations and actions. One task involves placing the pebble you've been holding on the table, where it will represent you. Using a string, you connect the pebble to objects on the table, with each object symbolising something important in your life. The string reveals the entangled web of your life, highlighting the complex but valuable relationships, places, and activities that shape you.

You take turns reading the cards until you reach the final one:

Discuss:
If the pebble could talk, what story would it tell about this encounter?

Make a sentence about yourselves starting with
"This is a story about a child that… "

How does the more-than-human perspective change your perception of time?
How do you finish the sentence?
Before leaving, you return the pebble to Steinunn, who is now typing the words you now are reading.

Your reading is in her future, and her writing is in your past, still, you are both in the present.

What does this fact tell us about time?

THE PRESENT
Let's jump to the present moment again.

I mentioned three types of tasks that I use in performative encounters.
Observation, contemplation and action.

I invite you to try them out in your present.
I give you three tasks.
Take your time to solve them.

Observation:
Pay attention to how this text affects you.
Pay attention to your feelings.
Pay attention to your thoughts.

Contemplation:
What can arts do that science cannot?
How can affective bonds change our behaviour?

Action:
Write a list of things that can move you to action.
A thing can be: human or more-than-human, emotions, places, sensations, forces, ideas, values …


BIODIVERSITY

From three performative encounters, strings were attached to everyday objects, symbolising the web of affective bonds in the participants' lives.

Now you have tried tools I have designed to bring guests into mindful presence, encouraging them to connect with the work through their own experiences, ideas, and values. By creating space for engagement and granting agency, these tasks heighten your personal investment in the experience. This method, rooted in participatory and immersive performance structures, is referred to in my research as embracing and porous dramaturgy[2]. From my guests I have learned that these methods can be transformative and motivate them to make changes in their lives.[3]

You have completed these tasks on your own, but this approach can be applied on a larger scale.

Are you ready for more time-travel?

THE PAST

It is May 2022 in Lund. Imagine that you are situated in Odeum, one of the oldest buildings of Lund University. Outside, the Magnolia is in bloom and the smell is intoxicating.

You have returned to *Strings,* now to part 2: *The Hub* a creative training programme that explores the driving forces behind change. You are invited to engage with the question: *What is worth sustaining?*

In a mixed group of guests and researchers all dressed in laboratory cloaks, four-thematic-pillars training programme is presented by the headmistress, Steinunn. You are promised that after four short workshops on love, empathy, connections, and care you will be awarded a stamped certificate stating that you are truly a researcher.

You find your small class and your tutor, and together you move between workshop-stations. The sound from a magnificent gong moves the groups between stations.

Your class begins by exploring questions of love. The researcher in charge shares their deep connection to the Amazon forest and how their work seeks to protect it. As a picture of the forest is projected onto her cloak, she invites you to reflect on what you love and, together, choose one thing to immerse yourselves in.

What are the things you love the most?
What would you not live without?

At the next sound of the gong, you step into the sunlight, meeting the more-than-human through empathy exercises, and tracing your connections with strings between the magnolia trees.

Returning to the hall you are presented with this task:

Caring for the future
Choose a pebble and write or draw on it, a message for the future.
The message can be for the future-you or a future-someone or -something.

If you do not want to make a mark on the stone, you can whisper the message to the pebble.

You take a pebble from the heap of stones on the floor.

What do you want to write on your pebble?

Once you have the answer, I will count to four, and then you will take a big leap into the future.
One, two …

THE FUTURE
three, four … you have arrived in a world where your body has merged with the earth, yet your spirit lingers in the love you left behind. You see a child, a girl who never knew you but has inherited the world you left behind. She discovers your pebble, and the message ignites a spark in her.

ALL IN ONE

Each connection we make, each moment of care, is a thread in the fabric of a shared future shaped by the stories we tell, the actions we take, and the love we hold.

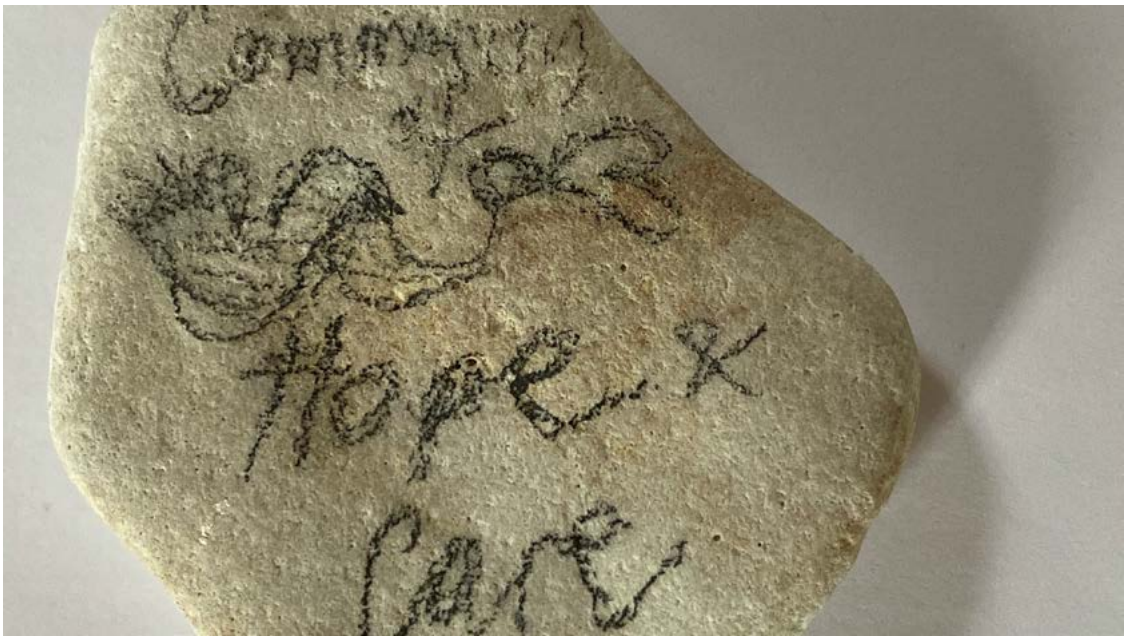
Strings was as a call to embrace the interconnectedness of our lives, the stories we share, and the ways we care for the world and each other. By weaving threads of love, empathy, connections, and care, the performance tried to demonstrate how small, acts can ripple outward, inspiring change and fostering a sense of belonging across time and space.

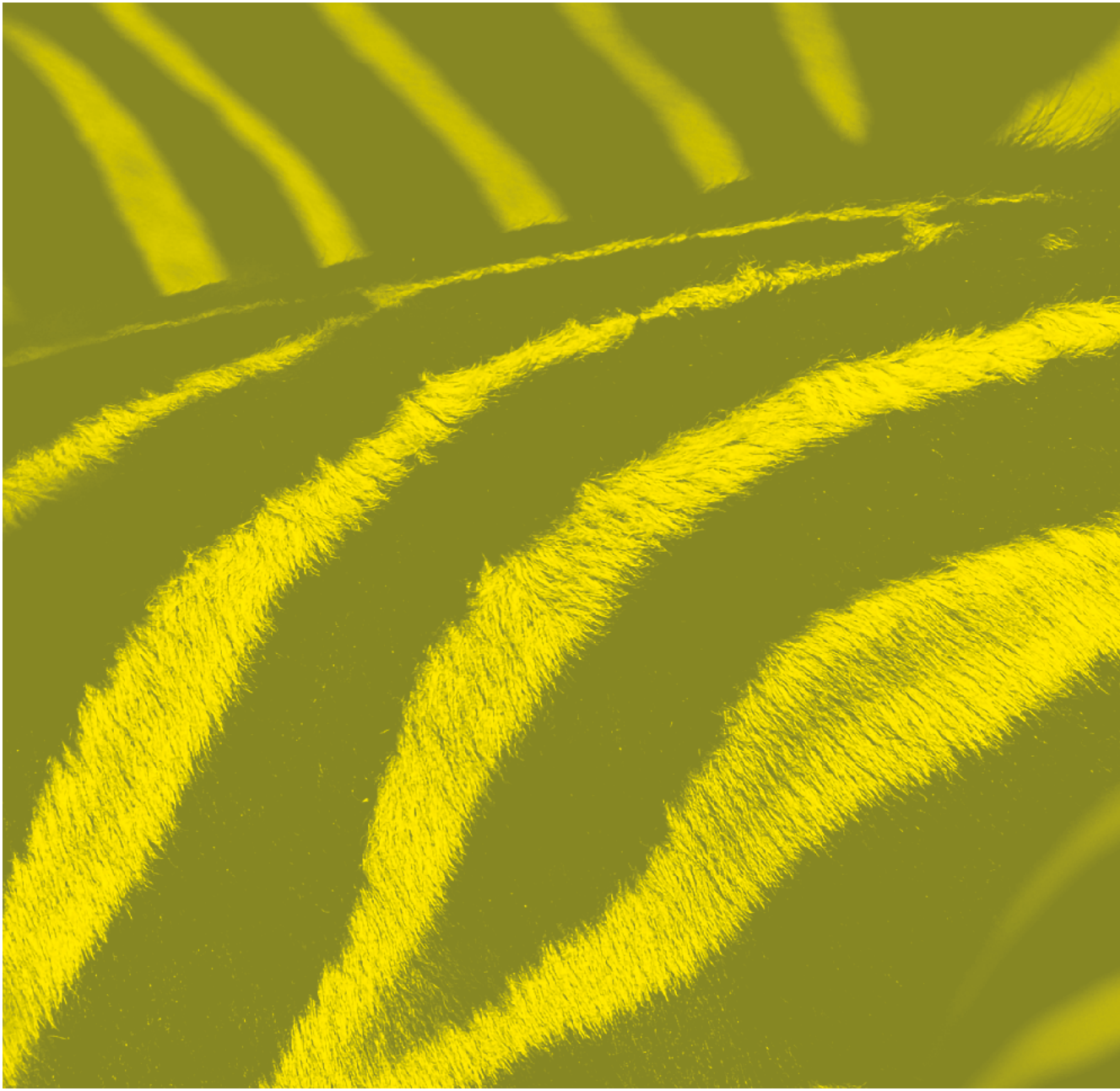
Hopefully, our performative encounter does not end with my final words but continues to invite you to consider: What is worth sustaining, and how can you act to preserve it?

I leave you here and now, at a moment that is all in one; present, past and future.

Photographs by Steinunn Knúts-Önnudóttir, unless otherwise stated.
Online exposition of Steinunn Knúts-Önnudóttir's research project:
www.researchcatalogue.net/view/1414313/1414314

Community of hope & care.


Lake
Park




PROBLEM SOLVING / CRITIQUE
02:

THIS SECTION EXAMINES key issues such as land use, deforestation, wastewater treatment, shared micromobility, animal rights activism, and the evolution of legal frameworks. Taken together, these topics reveal the tension between addressing immediate problems and confronting the root causes of unsustainability.

A COMMON THREAD is the call for legal and institutional reforms that incorporate environmental and social justice. Legal frameworks must evolve to align with sustainability imperatives, including the state's right to regulate in the public interest, even when it contradicts existing agreements. This broader view of justice must extend beyond human rights to encompass the health of ecosystems and the planet.

THE DEFORESTATION crisis in the Colombian Amazon highlights the need for sustainable agricultural practices and policy reforms, while wastewater treatment, though helpful in addressing water scarcity, raises concerns about maintaining unsustainable systems. Animal rights activism calls for a shift in how humans relate to other species, challenging anthropocentric views of sustainability. Shared micromobility solutions, such as e-bikes and e-scooters, offer potential but require public-private collaboration to fully realise their environmental benefits. Together, these perspectives emphasize that true sustainability demands both immediate action and a deep reevaluation of the systems that perpetuate unsustainability.

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CATTLE RANCHING AS DRIVER OF DEFORESTATION IN THE COLOMBIAN AMAZON FOOTHILLS

Jesica López
/ Faculty of Science

IN THIS ARTICLE, I will delve into the intricate land conflicts between cattle production and the alarming loss of biodiversity, exploring how these opposing forces shape the future of Colombia's Amazon. I suggest that there must be a deep understanding of land use dynamics in the context of the Colombian Amazon, with the presence of an armed conflict the vulnerability of entire peasant and indigenous local populations and the cascade of consequences at the ecological, socio-economic and cultural levels.

Deforestation and forest degradation account for 12–15 percent of current anthropogenic emissions – the second-largest source of CO2 after fossil fuel combustion.[1] In their study, Davis and Petersen (2018)[2] highlighted the growing attention on forests and the increasing demand for accurate, current information on forest locations, intactness, management, and changes. Such information is vital to support effective forest management and land use planning to maintain biodiversity and ecosystem services.

The Living Forest Report (WWF, 2018)[3] identifies Colombia's Amazon as one of 11 deforestation hotspots. These deforestation fronts are projected to account for over 80 percent of global forest loss by 2030, with up to 170 million hectares affected. In Latin America, beef production is a major driver of deforestation, converting forests to pastures for cattle and destroying around 2.71 million hectares of tropical forest annually.

Despite efforts by the Colombian government, there is a resurgence in deforestation rates. It is worrying that deforestation rates in Colombia, the third-most biodiverse country in the world and home to more than 60 million hectares of forest[4] has surged in the past few years, led by land-grabbing and agricultural commodity production, which has increased in the aftermath of the government's 2016 peace agreement with the FARC.

In 2018, Colombia lost 247,000 hectares of forest in the Amazon, the highest annual rate ever recorded.[5] Moreover, as suggested by McAlpine et al. 2009, in Colombia, cattle ranching has often been a tenuous economic activity that relies on large-scale extensive use of the land and has continued to expand in most of the regions in the country, but especially in the Amazonian foothills.

The Colombian National Planning Department (DNP)[6] is spearheading a "green development" initiative under the banner of bioeconomy. This initiative focuses on the agricultural sector, leveraging Colombia's abundant biological and genetic resources, residual biomass, and potential for creating "green" jobs. International investments, including contributions from Germany, Norway, and the United Kingdom, support Colombia's goal of achieving zero deforestation by 2030. These investments, totalling approximately 22.4 million euros, recognize efforts to reduce emissions from deforestation.

In 2018, the establishment of an initiative to promote the interests and monitoring of national and local public opinion on the problem of deforestation was created. This initiative focuses on the actions to control and reduce deforestation rates, but also highlights sustainable production practices.

By 2025, Colombia's initiative has grown into a multi-faceted national effort. Despite these advances, challenges remain, including high levels of informality in the forestry sector, limited technical and financial capacity for large-scale community forestry, and persistent drivers of deforestation such as illegal roads, cattle ranching, and land grabbing.

To effectively combat deforestation in the Amazon, a multifaceted approach is essential, incorporating sustainable practices, policy reforms, and community engagement. Conservation alone is not a universal remedy; it is crucial that designated reserves actively preserve biodiversity while supporting the livelihoods of local communities. Enhancing Amazonian regional sustainable forest management schemes with capacity-building and governance reforms linked to land-food systems is urgently needed to reduce deforestation, improve local livelihoods, and prevent further biodiversity loss.

If extensive cattle ranching continues, it threatens species habitats, risks forest collapse, and could lead to the permanent savannisation of the Amazon. There is an urgent call to limit and prohibit cattle ranching in

the Colombian Amazon, promoting alternative practices to protect ecosystems, biodiversity, food security, and prevent climate collapse. Inter-sectoral and regional collaboration, economic incentives, and alternative livelihoods based on socio-bioeconomies are essential to reduce deforestation and degradation. Political will is lacking to enforce clear land zonification for conservation or production, hindered by actors involved in illegal cattle and extractive industries. Increased national and international awareness and monitoring of degraded tropical forests across the Pan-Amazon territory are imperative to safeguard these critical ecosystems.

In conclusion, the Colombian Amazon case served as an opportunity to apply a holistic approach To the Agenda 2030 goals to assess and better understand conflicts and synergies of deforestation, land-use change, sustainable development and bioeconomy from the perspective of land use changes from forests to pastures for cattle, which can be accelerating threats alongside increasing climate change and biodiversity loss in these areas with tropical ecosystems.

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PROBLEMS TO SOLVE IN WASTEWATER TREATMENT AND REUSE

Maria Takman
/ Faculty of Engineering

MY RESEARCH ABOUT wastewater reuse, and my work at a municipal wastewater treatment plant, can be understood in terms of problem-solving for sustainable development. From a critical perspective, wastewater treatment and wastewater reuse could be viewed as ways of maintaining an already unsustainable society.

Wastewater treatment is performed to protect drinking water sources and aquatic ecosystems from bacteria, eutrophication and toxic chemicals. Usually, wastewater from households (water from toilets, showers, kitchens etc.) and/or industries is collected in a piping system, and transported to a wastewater treatment plant. At the wastewater treatment plant, the water is treated in several processes (mechanical, chemical and biological) to remove pollutants. After treatment, the water is usually released into lakes, rivers or oceans (the recipient).

The compounds that currently are in focus at many wastewater treatment plants are nutrients and organic compounds. These naturally occur in the wastewater, and can cause eutrophication and low oxygen levels in the recipient. With the revised European urban wastewater treatment directive[1], there will also be demands for the removal of other chemicals such as pharmaceuticals.

Since some of the compounds that can have a negative impact on the recipient, such as nutrients and bacteria, naturally occur in human excrements, it is not possible to avoid their presence in wastewater. The presence of other compounds, such as pharmaceuticals, could theoretically be decreased through bans and other types of regulations. However, these compounds are important since they cure and help people with different diseases. Thus, we might not want to prohibit their use.

Even more compounds, such as per- and polyfluoroalkyl substances, PFAS, can be found in for example textiles, make-up, furniture, and kitchen-ware. These compounds could possibly be prohibited without as big of an impact on society, compared to a ban on pharmaceuticals. PFAS is a large group of chemicals that are persistent to biodegradation, and are sometimes referred to as "forever chemicals". Many of them have negative impacts on human health. There are cases when PFAS has leached into the groundwater and thereby also into the drinking water. Thus causing first of all human suffering, but also monetary costs for water utilities to remove these compounds from the drinking water.[2]

To get rid of such "forever chemicals" and to discover unknown harmful chemicals in water is currently one of the big challenges for water treatment. This makes removal of such substances one of the major challenges with wastewater reuse.

Wastewater reuse is the reuse of (usually) treated wastewater for different purposes, such as irrigation, drinking water production, and industrial applications. The driving force can be drought, sometimes leading to a situation where traditional source waters (such as groundwater or lake water) are no longer sufficient to meet societal demands.[3] In such situations, the societal demands could be adjusted for example through limitations on the water use by industries, limitations on population growth and water use by households, or limitations on the use of freshwater by agriculture. Such limitations on water use could be legitimate, but would also have negative impacts on industries, agriculture, other businesses that depend on water use (such as cafés or restaurants), population growth (and therefore for example schools or stores), and in the end the general societal welfare.[4] Challenges regarding wastewater reuse include ensuring safe water quality, thus enabling smart and circular water use without risking spreading unhealthy chemicals or bacteria.

My research focused on the removal of different microbial and chemical pollutants with a process called granular activated carbon, which is a method to remove a wide range of chemicals through adsorption. The thesis was based on the assumption that wastewater needs to be treated, and in some cases reused to meet societal water demands, which brings us back to the question of problem solving or critique.

With a critical perspective, wastewater treatment and wastewater reuse can be described as ways of fixing the symptoms but not the cause of over-exploitation of water resources and use of toxic chemicals. On the other hand, limitations on the use of some chemicals, such as pharmaceuticals, and freshwater, could have a negative impact on society. Sustainable development will likely always consist of both problem-solving, for example through decreasing the symptoms through wastewater treatment, and of critique, potentially resulting in legislative bans on toxic chemicals or limitations on water use.

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SUSTAINABILITY AS A SPECIES RELATIONAL ISSUE – VEGAN ANIMAL RIGHTS ACTIVISM IN DENMARK

Naja Yndal-Olsen
/ Faculty of Social Sciences

IN THE FOLLOWING, I will outline how I think of sustainability in my PhD research. From a species-relational perspective, I approach sustainability struggles as a form of "symbolic boundary work". Reworking symbolic boundaries – by blurring, crossing, rethinking, and redrawing them – can manifest as both critique and more practical problem-solving endeavours.

Negotiations on sustainable futures can be seen as ongoing struggles over how to reorganise or maintain dominant ways of structuring, institutionalising, routinising and normalising our relationships with other species – our co-inhabitants of the Earth. Sustainability is, of course, also a question of how structural relations between human social groups should be organised more justly. However, I will focus on the more-than-human world. My PhD project is an ethnographic study that explores the personal transformations and collective influence strategies of vegan animal rights activists in a Danish agropolitical context. I position my overall research topic – the vegan animal rights movement – as one among various contemporary societal tendencies seeking alternative ways of relating to nonhuman Others.

Applying a relational approach to sustainability begins with acknowledging that relationships shape who we are, as we act within a web of entanglements, interwovenness, and interdependence. These relationships are structural and intimate, historical and contemporary, interhuman and interspecies, global

and local. For example, animal agriculture industries play a significant role in the climate emergency and biodiversity collapse.[1] As consumers, we enter a web of abstract, structural relationships with the animals whose bodies are commodified, and with those who lose their basis for existence due to deforestation for feed production or cattle ranching, the occupation of land by monocultural crop fields, water pollution, and global temperature increases driven by the industries' significant greenhouse gas emissions.

Since we are not in direct contact with most of these nonhuman Others in our everyday lives, our structural, border-crossing relationships with them tend to be invisibilized. Nevertheless, some of these relationships are highly intimate: consuming - not just symbolically, but literally ingesting and absorbing the Other – is indeed an intimate relation, and at the same time a certain power relation. In addition to this structural-intimate dynamic, the consumption is also, on one hand, contemporary and local (something we practice now and here), and on the other hand, historical and global. After all, the establishment and expansion of cattle and sheep ranching played an important role in the European colonization of other parts of the world, and the still increasing 'meatification' and 'dairyfication' of diets are related to the introduction and dominance of Western agribusiness methods worldwide.[2] Simultaneously, these dynamics are both interspecies and interhuman: humans as well as other

species are displaced due to deforestation, while workers in agricultural industries are often among the most marginalised and exploited.[3]

During my fieldwork, I have listened to many transformation histories of vegan animal rights activists – narratives about their initial 'becomings' and how they keep becoming through ongoing politicization. One pattern I have noted is that many now-activists previously held an apolitical 'circle of life' understanding of farming and human-nonhuman interactions. However, during their transformation processes, they began focusing on power relations and their own positions in relationships with farmed animals, companion animals, the wild animals they encounter in their everyday lives, as well as those they do not encounter, yet are still connected to. This shift illustrates how activists come to perceive interspecies ethics not merely as a personal trouble but as a political issue infused with power and linked to social institutions.

The activists I have followed engage in symbolic boundary work both internally – reevaluating their relationships with other species – and externally, through activism aimed at challenging species-related boundaries in mainstream culture. In sociology, symbolic boundaries are understood as conceptual distinctions made by social actors to categorize the world in ways used in struggles over defining reality. Social groups compete in the production, diffusion, and institutionalization of alternative principles of classification.

Symbolic boundaries generate feelings of similarity and group membership and are often used to enforce, normalise, or rationalise social boundaries: tangible expressions of social difference.[4]

'Boundary work' refers to the struggle to shift or maintain dominant boundaries. Symbolic boundaries can be bright or blurred, depending on the extent to which they have been institutionalised and naturalized in society. Vegan animal rights activism can be understood as an attempt to rethink, redraw, blur, cross, shift, and dismantle very 'bright' boundaries in society: The value-hierarchical human-animal dualism has historically been a core notion in dominant Western philosophies, Abrahamic religions, and the very foundation of the idea of human dignity. Consequently, the boundaries that the animal rights movement seeks to rework are deeply embedded and difficult to change – not only supported by cultural norms but also by institutional and structural relations.[5]

In my perspective, one way of performing boundary work involves paying attention differently. From a sociological perspective, communities guide their members, subtly or overtly, on what to focus their attention on. When individuals focus on something they are expected to ignore, they engage in 'attentional deviance'.[6] What is considered worthy of moral attention is also shaped by cultural norms. As part of becoming well-socialised members of

our communities, we are taught to "curb our moral concerns in a socially appropriate manner".[7] For example, global sustainability agendas have historically been highly anthropocentric, defining sustainability as securing the basis for future human life while neglecting our nonhuman co-inhabitants in their own right.[8] Some perceive it as irrelevant or even provocative (that is, socially inappropriate) when others advocate for including nonhumans in ways that do not rely on their utility for humans, for example as ecosystem services or resources such as meat.

The activists engage in attentional deviance when they work to draw attention to the invisibilised animals behind the meat – something that in dominant sustainability discourses is abstractly measured in tonnes of CO_2 equivalents or represented as commodities. In doing so, the activists challenge the boundaries for what is considered relevant and worthy of inclusion in sustainability debates.

To conclude, in my research I think of sustainability as a species-relational issue, where struggles for sustainable futures involve symbolic boundary work drawing in the direction of less anthropocentric thinking and being. This boundary work unfolds both within the activists themselves during their personal transformations and in the broader societal shifts they seek to promote through their activism. Their strategies range from explicit

critique, such as protesting in the spirit of "speaking truth to power", to practical problem-solving efforts. These include offering free consulting to companies on marketing plant-based options, distributing free taste samples, organizing prize awards for corporate plant-based initiatives, or lobbying for green canteens in public workplaces. Viewing sustainability through this species-relational and boundary-oriented lens highlights that sustainability struggles are not only about solving practical problems but also involve rethinking divides that shape our relationships with the more-than-human world.

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THE PROBLEM WITH THE SOLUTION

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THAT CARS ARE DRIVERS of environmental problems is unquestionable. However, it remains a challenge to steer individuals toward using other means that are greener. What, then, are some potential solutions that could lower the demand for cars? My PhD project was about shared micromobility, particularly shared e-bikes and e-scooters, which were presented as green transport modes that could contribute to decreasing the demand for private vehicles. The project was related to SDG Goal 11 of Sustainable Cities and Communities. In this contribution piece, I discuss how shared micromobility might help solve car-related environmental issues. But I also present a few drawbacks to having these shared microvehicles on our streets. Additionally, I highlight some results from my project and conclude with a question for the readers.

The development of my PhD project started with the challenge of making the transport sector greener. As the transport sector is one of the major contributors to greenhouse gas emissions, we must find ways to decrease car-related trips and replace cars with green alternatives. In my project, I examined the role of shared micromobility in the transition toward a sustainable transport future.

Shared micromobility is a mode of transport that offers smaller, lighter vehicles powered by electric or human power, also known as microvehicles, that users do not own but can use on a demand basis.[1] I focused on how

shared e-bikes and e-scooters could decrease car demand and complement public transport. Sustainability in my project was seen from a pro-environmental perspective.

The impetus for shared e-bikes and e-scooters came from the need to cover short distances that are too far to walk and areas with limited public transport. They were also designed as car alternatives, particularly since they offered speed, did not require too much effort when used, and most importantly, they were convenient as they could be parked anywhere. However, if you lived in a city where shared e-bikes and e-scooters were available, you would surely have noticed that this free-floating aspect caused chaos and problems in cities.

Shared e-bikes and e-scooters blocked pedestrians and roads. They were left in spaces for long periods without batteries and, therefore, could not be used. Yet what concerned many people the most was the accidents these microvehicles caused. As there were no regulations in place, especially for shared e-scooters, users could drive these vehicles the way they wanted, to some extent, without regard to their surroundings.

This user behavior made me think about whether, indeed, shared micromobility could help address car-related environmental problems. Therefore, my project looked at the behavior of shared electric micromobility users. Specifically, I looked at individual motivations to adopt shared e-bikes and

e-scooters. I asked users and non-users of shared micromobility from Denmark and Sweden to participate in my survey. These countries were among the few that had access to the shared electric microvehicles when I started my PhD.

The pressing issue the project wanted to address was – if shared micromobility could motivate individuals to replace private vehicles with shared e-bikes or e-scooters as a way to cut carbon emissions, could it be considered a good solution to reduce the adverse impact of cars on the climate? But if it only induced individuals to travel more and created a new market for short-distance leisure travel, could it then cause more problems for transport authorities and not address the environmental problems caused by the transport sector?

It did not come as a surprise, given preliminary observations and findings, that the results of my project revealed how individuals used shared electric micromobility primarily because they considered them fun to use. Although some users replaced car trips with shared e-bikes or e-scooters, the majority of the substituted trips were those of sustainable forms, such as the use of public transport, cycling, and walking. Therefore, the potential solution created unsustainable trips and did not complement public transport. Nevertheless, users acknowledged the functional benefits of using

the microvehicles, meaning they use shared micromobility for shopping or commuting. Results also indicated that for users of shared electric micromobility, its environmental benefits motivated continued use.

Even though in some cases and to some extent, shared electric micromobility is already regulated and has been integrated into public transport services, at large, they are still operated by private companies that struggle to break even and continue offering their services. Issues related to shared electric micromobility, particularly regarding safety and regulations, challenge its existence and drive away more people from using it. Currently, the environmental impact of shared e-bikes and e-scooters remains debatable. But one thing is certain – all sectors of society need to work together if they intend to tap into the environmental and social sustainability potential of electric microvehicles. Until now, the question remains: Could shared micromobility help the transition toward sustainable transport, or is the potential solution becoming a bigger problem?

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RETHINKING JUSTICE THROUGH ADAPTIVE LEGAL SYSTEMS

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OBLIGATIONS PROVIDED through legal instruments are being challenged by forces that are beyond the relationship between contracting parties, but rather the relationship between humankind and our planetary host. The Covid-19 pandemic quickly turned commonplace contractual norms in commerce and travel into relics of the past. Simultaneously, the impacts of climate change have introduced a 500-year drought in Europe and crippled world supply chains through heatwaves in China.

Scholars and practitioners of international economic law, the laws and systems that govern trade and investment, have largely recognised that sustainability is a matter of necessary public interest. In doing so, the field has found it increasingly difficult to disassociate sustainability from legal practice, irrespective of jurisdiction. Legal instruments, such as contracts and treaties, have also been evolving to more adequately reflect and respond to new realities.

One way that legal systems and mechanisms are able to adapt is by recognising that states retain the right to regulate and implement policy agendas on behalf of the public interest, even if such government measures may contradict binding legal agreements with either state or non-state entities. This recognition takes place both at the stages of legislation and interpretation.

Broadly, the right to regulate refers to the prerogative of the sovereign state to implement government measures, such as laws and policies, in the state

and/or the public interest. Exculpating this right configures it as a safeguard in relation to the state's obligations, such as those imposed by an agreement.

In international investment law, the right to regulate in the public interest is a form of flexibility pursued by states hosting international investment that is covered by an international investment agreement. This flexibility carves out a policy space wherein the host state may implement policies or government measures on matters it considers to be in its public or essential security interests. Government measures implemented on such a basis may be consistent with an applicable international investment agreement, even if those measures result in a negative impact for the admitted foreign investment. In such cases, the right to regulate is self-judged by the host state until it becomes contested via investment treaty arbitration, which then refers discretion to a tribunal to assess whether the policy or measure was a legitimate exercise of the right to regulate.

The right to regulate for sustainable development applies specifically to those policies and measures implemented on behalf of advancing the host state's sustainable development agenda. These government measures can include anything from revoking construction and/or operations licenses for fossil fuel extraction to terminating solar power subsidies in order to avert a balance of payments crisis.

Formulating and interpreting the right to regulate for sustainable development, however, remains inadequate when constrained to an exclusively legal dimension. This is because understanding and therefore interpreting sustainable development requires one to traverse far beyond the remit of legality. Instead, such interpretation must brave across traditional, disciplinary boundaries so that legal systems do not become obstacles but rather conduits of advancing sustainability. Legal interpretation must then involve questions of environmental and social justice.

Challenging such traditions, however, is an uncomfortable task.

It requires a departure from commonly held beliefs about the domain of a government's margin of appreciation, accepting the possibility that individual entities and actors may better serve the needs of sustainable development than public authorities. It also requires a certain pessimistic optimism about motives: relying on sound analytical methodologies based on real-world need and the best available science to understand whether states, private sector entities, or even development organisations are contributing to sustainable development.

In spite of this, the intersection between law and sustainable development empowers the challenger. Adaptive legal systems that are regularly updated on the basis of rigorous study and research, integrating into the legislative

process the best available science across climate, biodiversity, social systems, indigenous culture and knowledge, labour and environmental justice, and the many diverse dimensions of sustainable development can have tremendous intergenerational impact.

Therein, the steady hand offered by the rule of law meets the forward-looking gaze of sustainability. As we draw our hand above our eyes to block out distractions that may otherwise obstruct our view, we find that we may look farther than we would have and see that the goal is in sight.

The systematic and procedural application of the law is needed to advance justice. However, we must reflect on the meaning of justice and for whom or what. An anthropocentric and economic growth-centric understanding of justice has resulted in great sacrifice for our planetary host. Just as we see in finance, overarching principles in development policy and planning, such as leaving no one behind or doing no significant harm, must be integrated into our understanding of justice and the legal systems that are designed to realise justice.

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03: LOCAL / GLOBAL

SUSTAINABLE DEVELOPMENT is both a global and a local concern. However, global-local discussions typically focus on finding local solutions for globally defined issues. The local is seen as the place where solutions to universal global problems are to be implemented.

HOWEVER, THIS APPROACH reinforces the status quo more than it promotes just, sustainable development. Local and indigenous knowledge is often co-opted into liberal projects; actors with existing political and economic power remain in decision-making roles, while those suffering situations of vulnerability become further marginalised; would-be remedies for problems and harms take on a one-size-fits-all nature that neglects important aspects of local context. Working toward sustainable development requires a more nuanced perspective.

THROUGH OUR RESEARCH at the Agenda 2030 Graduate School, we work with global-local dynamics by attending to interactions between these different levels and addressing tensions between them. Through research on issues related to health, forests, livelihoods, education, refugees, inequality and climate change, we explore opportunities and barriers for sustainable development.

SUSTAINABLE DEVELOPMENT IN MARGINALISED LANDSCAPES

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WHILE QUESTIONS OF climate change, economic growth, peace and justice are inherently global issues, they always play out at a local level. As an Ethnologist, my research is driven by the idea that global issues always take place *somewhere*. I strive to get to the heart of how they are experienced as everyday realities in those places. In my research on pastoralism in Northern Kenya, I encounter people coping with crippling poverty, ethnic violence and severe droughts. These stand side-by-side with initiatives by local and international NGOs to strengthen livelihoods resilience, rehabilitate denuded land and promote biodiversity. To get a sense of how all of this connects, I look at it at the landscape level.

Development (sustainable or otherwise) always concerns both people and the environment. Exploring questions of development at the landscape level calls for focusing on the interactions between the two. One approach is to see the landscape as a *cultural* landscape. This is a way of looking at a geographically bound area as shaped through the productive labour of individuals, families and social groups who inhabit it to reflect their lifestyles, cultural practices and modes of production.

Landscapes are in continual flux, constantly changing over time in response to historical conditions. They are also created through dialogue between humans and the so-called natural environment. As people live in a place,

they shape the physical features of the land, but their social systems and economic relations are also shaped by the environment itself. Pastoralist landscapes, for example, are often converted into large pastures of open grazing lands. Families may then group together into clans to manage certain sections, raise livestock together and coordinate the sale of their produce.

The inhabited world is a patchwork of agricultural, pastoral, arboreal and urban landscapes. The world's distinct landscapes are all woven together across its seven continents. The majority of the world's population now live in urban landscapes dominated by housing, industry, commercial centres and parks. Yet the majority of the world's *marginalised* population live in rural landscapes and try to make a living off the land. Pastoralists, hunter-gatherers, rice paddy farmers, slash-and-burn agriculturalists and nomadic herders tend to live in places defined by income inequality, the adverse effects of climate change and inadequate access to healthcare and education. Many of these communities have historically established economic systems with the ability to support the population within the harshest of environments without overexploiting the resources. These tended to be built on egalitarian social institutions and extensive ecological knowledge. Most of these landscapes are now being radically disrupted by human-induced climate change and modernisation. Across the planet,

the 20th century saw states adopt national agendas to modernise their economies. Ways of life that were deemed unsuitable to the modern economy were largely neglected. Yet they could not avoid the spillover effects of modernisation; the unprecedented rise in individualism has corroded many strong social institutions and the introduction of Western-style education systems has largely replaced indigenous knowledge systems. Lacking the capital and infrastructures to thrive in the modern global economy as well as the egalitarian social systems of the past, these regions have become hubs of multi-generational poverty and precarity and their ecosystems are unable to cope with the effects of climate change.

At a landscape level, sustainable development can be thought of as a process of change in the region which encourages equitable economic growth among its inhabitants, promotes peace and tackles climate change. Given that every landscape is different, no path towards sustainability looks the same. Imagining a sustainable landscape requires first picturing the specific landscape and asking how it would need to change. A sustainable ändra till pastoral landscape, for instance, might have an economy which relies primarily on natural resources found within the ecosystem without overusing the resources. It would offer livelihoods which are resilient in the face of climate change and elevate the population out of poverty. The economy

would be supported by a functioning social system which upholds the fundamental rights of the entire population – including its most vulnerable – to decent work, healthcare, appropriate education and clean water.

What's more, in a globalised world, no landscape can be considered truly sustainable until they all are. Poverty, inequity and ecological degradation may be disproportionately meted out to marginalised landscapes, but they are created by global greenhouse gas emissions, excess consumption and global financial systems designed to enrich the wealthiest. Whether they choose to be or not, marginalised communities are already part of the global capitalist economy, sitting on its edges and forced to scrape out a living from its scraps. Leaving this system is not conceivable. Sustainable development is considered by many as a next; yet it implies some form of economic growth. The current paradigm, which encourages growth for the sake of growth, only works to entrench inequalities and further marginalise the most vulnerable. To bring marginalised landscapes away from the margins, sustainable development must necessarily guide or reign in this growth so that it brings gradual and holistic – rather than free-wheeling and aggressive – change.

As an issue of common concern, the promotion of sustainable development is primarily a question of governance. The SDGs provide a framework for global governance by setting goals which, if achieved, claim to set the foundations for a better and more sustainable future for all. The 17 goals

are designed to act as a blueprint to guide policy at all levels of governance, from the global to the local. A place-conscious approach to sustainable development calls for coordinated action between local, national and global stakeholders. Communities and regional government bodies ought to be seen as the beating heart of development initiatives, with long-standing grassroots organisations filling in the gaps that existing government services don't provide, particularly in low-income countries. To bolster these grassroots initiatives, central governments and multilateral organisations ought to implement strong, pro-poor regulations and provide technical and financial support to local organisations.

Regional development assumes a perspective which considers the accumulation of changes in the actions of the people living in a particular geographic area as well as its ecological systems. This involves providing the right conditions to foster progress in the three pillars of social, economic and ecological sustainability. This may include (among other things): improving economic infrastructures to allow equal opportunities to trade and ease of access to markets for even the hardest to reach; establishing affordable healthcare systems and educational provision relevant to the cultural context; protecting or harbouring ecosystems with flourishing biodiversity; and upholding a functioning justice system.

A cultural landscape perspective tells us that each of these realms is influenced by individual and collective actions, social systems, material structures and ecological systems. These structures and systems are formed by the interactions of money, ideas, technologies and people from various local and global locations flowing into, out of, and within the landscape. Changing them for the better requires guiding these various factors in the right direction and designing policies to buttress the economic, social and ecological systems which have the best potential to promote sustainable livelihood opportunities. For governance to promote sustainable development, it must necessarily engage all of these components individually and as an interwoven collective. What's more, for landscape development to be sustainable, it has to adapt pre-existing economic, social and knowledge systems to the modern condition by making them instruments of inclusivity and equality rather than injustice and exclusion. Avoiding the mistakes of past attempts to modernise marginalised landscapes calls for a culturally sensitive approach to growth which respects the traditions, institutions and cultural values that have historically provided marginalised rural communities with resilient livelihoods.

In short, sustainable landscape development hinges on an acute understanding of the local context, its connection to the global sphere and the past. What specific combination of factors influences the landscape's develop-

ment? In what ways do they impact livelihood opportunities, social justice and biodiversity? Where do they come from and how do they integrate into the local culture? How can resources best be guided to facilitate an inclusive socioeconomic system? And what can we learn from previous efforts that might support future ones? These are just some of the questions which, if answered properly, may help build genuinely sustainable futures for the world's most marginalised landscapes.

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LIVING PEACEFULLY WITH CLIMATE CHANGE

CARE-BASED KNOWLEDGE FOR LOCALLY TACKLING GLOBAL CHALLENGES

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YOU DO NOT HAVE TO look far to find suggestions, and even panic, that climate change will not only pose challenges for people to access food or protect our homes, but also that it might lead to more wars and conflict. Media reports, United Nations' press releases, or perhaps your everyday conversations threaten that the end is near or that climate change will precipitate the next world war. Yet to me, as a Political Scientist researching climate change and a scholar of Peace and Conflict Studies, the scariest part of these claims is that this way of framing the problem might pose a bigger threat to peace than these hypothesised climate impacts themselves. By foretelling an apocalypse, are we ensuring that it comes?

I study the global impacts of climate change in a local place – Puerto Rico. The Puerto Rican archipelago is one of the world's oldest still-existing colonies. Since the first (known) inhabitants of the islands, the Igneri and Taino peoples suffered invasion and genocide with the arrival of the Spanish in 1492, the local people have lived with over 500 years of colonisation. Today the islands are an unincorporated territory of the United States (US). The US has used the territory for everything from developing medicines and health policies (for instance, testing chemical weapons like Agent Orange, leading both to the development of weapons as well as to breakthroughs in cancer treatment), to a training ground for aerial bombings. By World War II, the military occupied nearly three quarters of the Puerto Rican island Culebra, contributing to a significant decline in the local civilian population.

Studying climate change locally gave me new perspectives on this global phenomenon. I learned that, while people know what climate change is and anticipate these changes through international data and reports, they also know what this change *means* based on local and personal experiences: through understanding the impacts of change (cognitively) as well as feeling changes physically and emotionally (embodied and affective knowledge). This *care-based knowledge*, as I call it, opens up a new way of knowing climate change that may enable us to find more peaceful ways of living with the changes. Aside from uncovering intimate and highly localised environmental changes and their implications for people (such as devastating destruction of hurricanes, encroachment of seaweed blooms on beaches, or unbearable heat), care-based knowledge also reveals space for imagining desired futures, alternatives to dystopian storytelling, and peaceful ways of community thriving.

Surely, climate change demands our urgent attention. Scientists concede that if we do not change consumption and production patterns and address rampant fossil fuel emissions that contribute to global warming, we face irrevocable changes to the environment. The more you follow the news on climate change, the more you might also find headlines and opinion pieces framing climate change as the end of the world or the most urgent crisis facing humanity, leaving little to no space for politics or debating alternatives.

This way of knowing climate change is based on a particular way of thinking about what counts as 'knowledge'. Today's policy and academic spaces are dominated by a preference for objectivity, which stems back to Enlightenment era distinctions that value society over nature, mind over body, and reason over emotion. This so-called 'Logic of Domination' served as a basis for knowledge production and science, such that how we 'know' must be based on reason, not emotion; decisions must be objective, not subjective. Knowledge on climate change has developed in this way of knowing that privileges 'neutral' models and 'value-free' abstractions.

However, these approaches carry institutional and individual modelers' values; they reveal certain preferences shaped by distinct colonial and extractive ways of knowing and doing research. Decisions about standards, safe limits for change (e.g., limiting post-industrial temperature rise to 1.5 or 2 degrees Celsius), and so on do not appear magically or naturally, but rather through value judgements: some amount of sea level rise is acceptable and the impacts on coastal communities are tolerable; some degree of warming and the loss of habitats it ushers is justifiable. In fact, the very tools that are used to collect and make sense of climate-related data are products of military technologies.

Social scientists have long known that the way that we define phenomena shape how we understand and problematise them. Think about the implications of the stories about impending dystopia that surround us. It is

not only thinking about climate change that suffers from this problem of doom-casting. How often do we talk about or study conflict and violence instead of peace? These trends are not accidental or coincidental. In my doctoral research, I found that there is a similar thread underlying the dystopia-narratives that dominate academic, public, and policy spheres on climate change as well as peace.

This has had wide-reaching implications for how we know what climate change is and for the solutions we propose for dealing with it. Practical techniques tend to universalize solutions for people even though we do not have a universal experience of problems; they offer piecemeal solutions even though climate change extends far beyond compartmentalisable impacts or causes; they target symptoms that reinforce situations of vulnerability. So, what do we do? How do we know climate change using these global models and data without falling into universalised solutions or without reproducing violence and inequalities?

My doctoral research proposed 'care-based knowledge' to complement existing climate knowledge. This approach marries utopian thinking from peace studies with embodied, situated knowledge. My thesis shows that care labor, values, affection, or politics impacts how we imagine and create peace amidst the ever-growing challenges of climate change.

According to feminist theorists, *care* "includes everything that we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, ourselves, and our environment, all of which we seek to interweave in a complex, life-sustaining web".[1] What we care about, how we take care of it, how we receive care or know if needs are fulfilled, and the relations between care-givers and -receivers are not universal; they arise from concrete historical and contextual situations and relationships. Because of this, care requires and also generates relational knowledge. Care-based knowledge then cannot be purely a product of measurements or data models; it arises through a back-and-forth process with the emotions involved in caring for something or in deciding what we value and how, the physical nature of enacting these values and fulfilling a need, and the thought processes used for knowing something and relating to those around us (Figure 1).

In my thesis, I found that care-based knowledge (knowing informed by caring values and practices) allows us to understand climate change in new ways for building through experiential relations of different beings with specific histories and values, grappling with the interconnections of local and global experiences and politics.[2]

By living and working with members of a community collective in Culebra, Puerto Rico during my doctoral research, I found that knowing, thinking about, relating to, and experiencing climate change revolved around specific

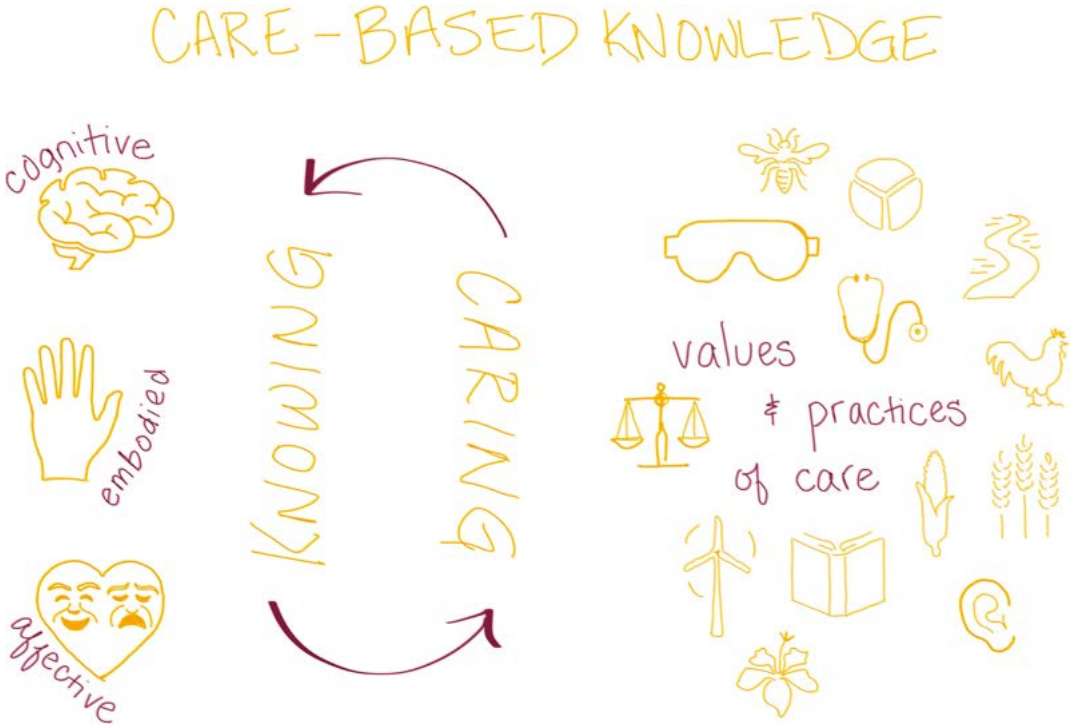

Figure 1: Care-based knowledge

themes.[3] First, we know climate change through care in relation to food – the labour of accessing and preparing food, our desires and health outcomes, and the logistics of production and consumption. Second, care reveals different manifestations of climate change in relation to people's livelihoods – the ways people make a living, desire to spend their time, and think about the future. Thirdly, care in relation to identities – the feelings, expressions, and interpretations people make about themselves, their relationships, and how they fit into the community – highlights different understandings of climate change. The knowledge of these themes came out of affective, embodied, and cognitive knowledges from how people value and practise care.

Care-based knowledge orients what these themes tell us, as well as what we do with this knowledge for peace. People understand climate change based on how it impacts their lives, relationships, and environment and this starting point means that 'solutions' for living with climate change can be specifically oriented towards desire for living well. This local way of knowing through care gives a different picture of climate change based on local-level experiences, desires, and needs while maintaining connection to global processes that drive climate change. Bringing care-based knowledge into academic research, politics, and community activities can help us imagine and work towards different peaceful futures – creating space for desired communities and ways of thriving, instead of dystopian collapse.

SUSTAINABLE DEVELOPMENT OF URBAN FORESTS

GLOBAL/LOCAL SCOPE IN ENVIRONMENTAL PSYCHOLOGY

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WHETHER WE THINK about sustainable development in a local or global dimension (or sometimes both), the principles we would like to apply and highlight with our research can be the same. Being a PhD candidate in environmental psychology and working in an interdisciplinary project (collaboration with lighting engineers, biologists, ecologists and artists) does not only equip me with the necessary knowledge but also validates that the interdisciplinary approach is scientifically sound. The aim of my thesis is to explore the human experience in urban green areas, specifically urban forests, and how after-dark urban forests differ from daylight when people assess them. Moreover, how people can feel safer and reduce their stress levels in urban forests regardless of the lighting condition.

The UN definition states that there is global citizenship and global responsibility and this shows clearly how our behaviour is a part of an interconnected chain. All cultures and civilizations enable sustainable development and to minimise the impact of cities on the global climate change is crucial. Global responsibility paradoxically sheds light on the individual responsibility when the individual realises that they can help and affect others. Local authorities plan and reorganise cities so as to foster community cohesion and personal security. Although the principles in my study are seemingly in a local dimension, a Swedish urban forest could probably be generalised in the other Nordic countries and forests, with same limited daylight hours in wintertime.

The pure psychological question here is under which circumstances human users are changing their way of thinking and when are they willing to use these urban forests in the darkness? And when they do use them, how have we reached that? What motivated the people? When decision-makers act according to this reasoning and relevant data, then we comprehend the importance of human mobility.

The epistemological critique of outdoor lighting is that the other species simply do not need it, so it is installed in the urban forests only for the benefit of humans. The effects of ALAN (Artificial Light At Night) are global but the different parts of the problem are associated with city planning, since sometimes local decision-makers will affect the lighting solutions. Academia provides a river of information through which new lighting solutions are put into the test and that can be the initial stage of change. Since transdisciplinary (universities-municipalities) collaboration is a usual praxis and becomes even more popular in tackling and analysing contemporary issues, this gives academia even greater possibilities in setting an example. Urban forests are often protected areas like Natura 2000, so placing light poles is not always an option. Other solutions can therefore become the norm, and not a mere substitute for stable artificial light. The way specific nighttime recreational activities are done can shift the focus towards more environmentally friendly

solutions for individuals who do not necessarily seek an overly lit urban forest in order to enjoy it. In my PhD project, one such example is the use of a head torch — a personal light source that allows the user to control the specific area that is illuminated. Moreover, energy use could be significantly decreased and other species, like bats, could be less disrupted in their life cycle.

To disseminate the results of interdisciplinary studies, is it important to convince people or to pass the information? The majority of the population that reside in urban environments are gradually losing their connectedness to nature and the subsequent well-being that natural environments provide. Inside the green areas that are located in the vicinity of urban environments and play a pivotal role for people's well-being, the issue of safety is central. If they are perceived as threatening in after-dark hours then the urban forests are a problem, an obstacle to mobility, and not a part of the urban mobility map. However, if the outdoor lighting is making the same urban forests usable for humans, even that has to be carefully implemented, because lighting is only one piece of the puzzle.

Therefore, to imagine sustainable development in my PhD work and particularly in an urban forest, it is important to rethink how we understand the notion of a safe urban green area. They must be simultaneously perceived as safe, have very low lighting levels and thus low energy use, and

at the same time to function as a part of the human mobility map all year round -regardless of daylight or after-dark hours. The vision is created on a local level and extrapolates to the global, when following some principles that could be applied internationally. Fortunately, even though we do not have the same circumstances all over the world, we know which principles are working effectively. If people are feeling safe, then they will be outside more. If people have a stable social environment in their neighbourhood, they will use the urban green areas more often. If people understand the negative effects of outdoor lighting, then dimming that lighting can be more easily accepted, as it will feel as a part of their identity and how they want to perceive their local settings and the world. These factors will lead to the sustainable development of urban forests.

A work package in my PhD project is using the development of the program Digital Twins, which creates a digital representation of an object. The AI possibilities can be one of the 'bridges' between the local and global level, since it is literally the feeding of data from field work to the Digital Twins that forms the future digital representations of urban forests, urban green areas, cities etc. We have the aspiration of providing the Digital Twins with data which will increase representation in terms of lighting and also in other aspects of the built environment. When this representation is accu-

rate enough, the information would be directly accessible from all over the world and the different facets of the environment could be put in the digital sphere. Experts and laypeople would then have the ability and access to customise the digital urban forest with minimum effort and test various constellations of light solutions, types of trees, greenery density etc.

People can have a stereotypical thinking about outdoor settings that are not well managed. We like grass lawns, but we do not suspect how bad they are for biodiversity. Human users would probably feel more negative feelings in an untended forest than in a tended one, since they would consider it a sign of desertion. However, if they knew the consequences of that management for birds, insects and animals, then their view of an untended forest would change. More time spent in nature can be associated with a greater sense of connection to it. When the community is engaged more and more in a nature space, that can also affect decision-making and management. This also connects to the global-local scope since using and interacting in an urban forest increases civic engagement and facilitates negotiation among decision-makers and stakeholders. Urban forests can also be seen as cultural symbols which enable the connection between people's norms and communal symbols, which is pivotal on a cultural level of change.

Urban forests can make positive contributions to quality of life, including effects on physical and psychological well-being and they can contribute to creating social trust. Psychological perspectives essentially consider values (personal, guiding principles) and identity (how people define themselves) as the 'building blocks of public engagement', which tend to be more stable and consistent across contexts. Ergo, the local–global connection is evident; people enable the societal changes, and the global community can run based on the same values and principles to support practical change and sustainable development.

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SUSTAINABILITY IN HINDSIGHT

THE BALANCE BETWEEN LOCAL AND GLOBAL DIMENSIONS IN THE HIV/AIDS RESPONSE

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IN THE REALM OF GLOBAL health, in the era of the Sustainable Development Goals (SDGs), sustainability has become a central concept, particularly in addressing long-term health challenges such as HIV/AIDS. Sustainability in this context refers to the ability of healthcare systems to ensure that efforts to combat HIV/AIDS are not only effective in the short term but also interventions in the long run toward a future where HIV is no longer a public health threat, without exhausting resources or compromising the health of future generations. The fight against HIV/AIDS requires both global solidarity (and collaboration) and local action.

At the global level, sustainability in HIV/AIDS is shaped by international policy frameworks, funding mechanisms, and scientific advancements. Global initiatives like the Global Fund and PEPFAR (President's Emergency Plan for AIDS Relief) have been instrumental in financing HIV/AIDS programmes, but their funding is often dependent on political and economic conditions. International organisations such as the World Health Organization (WHO) and UNAIDS set ambitious global targets such as the 95-95-95 targets, which aim to ensure that 95 percent of people living with HIV are diagnosed, 95 percent of diagnosed individuals receive treatment, and 95 percent of those receiving treatment achieve viral suppression. These global goals drive the efforts of national governments, healthcare systems, and NGOs. However, these frameworks must also be adaptable to local contexts, recognising the varied challenges and needs of different regions.

At the local level, sustainability is about creating systems that are responsive to the unique needs of a community. This includes not only ensuring access to treatment but also addressing underlying social determinants of health such as education, employment, and healthcare infrastructure. Local involvement is crucial for maintaining health initiatives, ensuring that interventions are culturally relevant and widely accepted. In many parts of the world, particularly in resource-limited settings, local communities play a central role in the response to HIV/AIDS. Community health workers, peer educators, and local organisations are often the first line of defense, providing prevention information, helping to overcome barriers such as stigma and support for treatment antiretroviral therapy (ART) adherence.

The goal of ART isn't only to reduce HIV related morbidity and mortality to improve the health of individuals living with HIV but also to reduce the risk of HIV transmission, as effective ART can reduce the viral load in plasma to undetectable levels.[1] This significantly contributes to the effort to halt HIV transmission since undetectable viral load is equal to zero risk of sexual transmission. However, there are still an estimated 1.3 million new infections (50 percent were in Sub-Saharan Africa) in 2023. Overall, the Global South and North exhibit different patterns of HIV transmission. Several molecular epidemiological reports show heterosexual transmission is the driver of HIV epidemic in sub-Saharan Africa, while it is driven mainly

by men who have sex with men and injection drug users (sharing needles) in many Western countries.[2] Hence, there is a need to identify local reasons for continued HIV transmission and design effective interventions.

My PhD project titled 'Why does HIV transmission persist in the era of ART rollout in Ethiopia?' focuses on HIV transmission in Ethiopia to identify and characterise HIV transmission clusters and those recently infected. This is a key step in understanding local transmission patterns, including areas with ongoing transmission and those at risk of infection. One component of my project also aim to validate the performance of an affordable test (point of care IP10) that could be used to triage patients who need viral load tests for routine monitoring since the model of HIV care created in resource-rich settings is not financially sustainable without major external funding. Context-specific research is a vital step in addressing sustainability in a local context, which will enable the design of targeted interventions to accelerate epidemic control by steering limited resources to where they are most needed.

Through combined local and global actions, undoubtedly, significant progress has been made since the start of the HIV pandemic. Over the past 30 years, the annual number of new HIV infections has decreased by more than 50 percent, and over 16 million AIDS-related deaths have been

averted. In 2023, 30.7 million people living with HIV were on lifesaving ART treatment, up from just 7.8 million in 2010. The improvement was also evident in Sub-Saharan Africa.[3]

Overall, there was a sense of optimism when it came to achievements in HIV/AIDS control with some kind of hope that these advances are sustainable. However, sustainability in health, particularly in the context of HIV/AIDS, has recently faced significant challenges. The recent freezing of aid funding by the US disrupted treatment for thousands of people and strained healthcare systems at this final stretch of SDG.[4] It quickly became clear to the global healthcare community how fragile these gains were. This also underscores the interconnectedness of local and global dimensions in achieving sustainable development.

After observing how the global health system is shaken by recent political developments,[5] one could argue sustainability could only be achieved by building local resilience and capacity. Indeed, health systems need to be resilient in the face of challenges such as disease outbreaks, economic instability, and political shifts to ensure sustainability. However, just by remembering the history of HIV – started in a small area in Central Africa, eventually escalating into a pandemic that affected countries across the globe, killing

more than 40 million people since the start of the epidemic – it's clear that considering sustainability only in a local context won't address the issue. The necessity of approaching sustainable development holistically, from both local and global dimensions, is evident especially in this era of accelerated globalisation.[67]

The hidden fragilities in the global system expose a degree of unsustainability in the HIV/AIDS response. As the era of the SDGs draws to a close, it becomes apparent that we need to rethink sustainability, look back at past actions, decisions, and evaluate our approaches. Using insights gained from hindsight, we need to develop more effective strategies that ensure sustainability. Evidence shows this involves interconnected global and local processes which take into consideration long-term planning, financial sustainability, social sustainability and equity.

Overall, many health problems, particularly HIV/AIDS is not only a health issue but also a socio-economic challenge deeply intertwined with many factors. We need coherent and integrated global action to address the HIV epidemic and achieve the SDGs. The paramount importance of partnership cannot be emphasised enough: the HIV epidemic is everyone's concern, not someone else's. The global community needs to leverage the interconnected

nature of the SDGs and examine the interplay between SDG3 (HIV in particular) with other SDGs, make significant strides toward eliminating HIV and achieving broader development goals in a sustainable way. Indeed, we need a globally unified approach and collaboration, but we need to realize that local adaptation and resilience is crucial since what works in one country may not necessarily be effective in another even though there may be some commonalities across societies. Hence, sustainability in health—particularly with regard to HIV/AIDS—requires both a local and global approach because local and global efforts are interconnected and it only creates effective and lasting sustainability when both levels work in harmony.

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SUSTAINABILITY IN MUSIC EDUCATION

A CALL FOR ACTION STUCK BETWEEN GLOBAL POLICIES AND LOCAL ORGANISATIONAL HINDRANCES

Lina Van Dooren
/ Faculty of Fine and Performing Arts

IN MY PHD PROJECT, sustainability is regarded through an educational lens and connected specifically to the music lessons in compulsory schools in Sweden. There are many global and national policy guidelines on how sustainable development is to be understood and implemented in education. Research on music (education) and sustainability shows that music can be a valuable resource to learn about sustainability and can lead to changes in peoples' behaviours and lifestyles. Some examples include how music can be a form of knowledge that complements the more scientific and fact-based knowledge. This could be done by using music to imagine different realities and possible sustainable futures.[1] On the nexus of culture and environment, music can foster a respect for cultural diversity and local eco-systems.[2] Also, music's connections to emotions can be useful given the importance of emotions for transformation through sustainability education.[3] As my research progresses, however, it becomes increasingly clear that music teachers are stuck between the policies calling for transformation and action on the one hand and the realities of the classroom and requirements of the music curriculum on the other hand. The latter do not seem to facilitate engagement with sustainability in their practice. Furthermore, the global and holistic premise of the sustainability concept appears to complicate implementation as music education scholars seem to call for a local, contextual and place-conscious approach.[4]

To understand this tension in the current situation better, it is helpful to look at how sustainability became a part of the Swedish curriculum. Although the Swedish national school system had not yet been established, it started with a predecessor of environmental education (EE), which has arguably been part of the Swedish school plan since 1919. This type of early EE was mainly situated in the natural science subjects and focused on nature, forestry and outdoor education. The 1969 curriculum contained many environmental references based on the tradition of fostering environmental protection in Sweden. However, more global references during the 70s became the source of input for the environmental component in the national curriculum in 1980 and a more formal approach positioning teachers as advocates and experts towards EE took form. Following another global event, the concept of sustainable development appeared for the first time in the curriculum Lpo94/98. As a result, towards the end of the 1990s more social science perspectives were included.[5] In the 2011 curriculum and the recently established one from 2022, sustainable development has remained part of the curriculum's general guidelines that is to be enacted by all actors involved in the school's organisation. It has also found its way into the subject-specific syllabi, although this has shifted a little between the last two curricula. Noteworthy is that some social science-based sustainability issues have found their way into the cur-

riculum through UNESCO's Education for Sustainable Development programme, yet focus remains strongly on the ecological dimension.

While the call for action for sustainable development through national curricula is well-intended, it is criticised in educational research for being subject to globalisation as well as neo-liberal forces that prioritise economic development over fostering a respect and care for the (local) environment.[6] Up until the 1960s it seems that EE in the Swedish curriculum was a place-conscious implementation, meaning that the implementation was based on local environmental conditions and cultural community practices. Conversely, the universal premise of sustainability and the holistic integration of the concept requires a broader and more general understanding. While it does not necessarily disregard the local context, it departs from a global top-down agenda.

With this evolution in mind, music teachers in Sweden today are supposed to contribute to sustainability education in that it is part of the curriculum's overall objectives, values and guidelines that target the orientation of the school's work.[7] Simultaneously, they face an organisational reality in schools that hinders them from implementing sustainability education even if they wanted to. For the past decades, the music subject has been pushed more and more towards the margins of a curriculum that strongly favours STEM

(science, technology, engineering and math) subjects and literacy traditions to tailor education towards the job market and global economic competitiveness. This often means that the music teachers only meet the students for one hour per week – often even less – and that there is simply no time and space to address sustainability issues, let alone achieve the learning goals in the music syllabus. Consequently, the possible benefits that research indicates of uniting music and sustainability, as mentioned in the introduction, do not seem to find its way into the music classrooms (yet). Currently, the music teachers who do address sustainability in their lessons express a discrepancy between the sustainability education learning goals and the music curriculum. The music teachers justifiably prioritise the music learning goals and address the sustainability concept superficially and unidimensionally. Furthermore, the expressed need to address sustainability issues and education for sustainability through a multidisciplinary approach forms another obstacle. The single subject organisation of the current schooling system does not facilitate collaborations between the various subject teachers. Consequently, the music teachers are stuck between global and (globally-inspired) national policies and the everyday classroom reality that is dependent on the educational system's organisation.

Simultaneously, the music education research community is advocating to respond to highly debated societal issues such as the various ecological crises. There is a need to approach sustainability from an artistic (musical) point of view to facilitate transformative learning experiences and envision/imagine possible sustainable futures as a way of balancing the more scientific approach. However, in order for our students in schools to learn about sustainability in other ways, structural changes must be made to facilitate this in the music lessons. In the meantime, I can only encourage music teachers not to wait around to get 'un'stuck and to collaborate with their students to find novel ways to include sustainability in their current practice.

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SUSTAINABILITY AND THE VULNERABILITY OF YOUNG MIGRANTS

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THOUGH SUSTAINABILITY research often focuses on environmental sustainability and economic sustainability, my research focuses primarily on social sustainability and the well-being of populations and communities. Of particular relevance to my research is the principle of "leaving no one behind" of the 2030 Agenda, which requires tackling inequality and discrimination resulting in marginalisation and exclusion of individuals and communities. My research has focused particularly on the vulnerabilities experienced by young migrants in Sweden.

Migrants are largely absent from the Sustainable Development Goals despite a steady increase in international migration over the past few decades to 281 million migrants in 2024, of which young migrants make up about 10 percent.[1] Where they are mentioned, they are primarily represented as workers (Target 8.8 focusing on protecting labour rights, including for migrant workers) or as a population that needs to be regulated and controlled, particularly from the perspective of receiving countries (Target 10.7 focuses on the implementation of migration policies to ensure orderly, safe, regular and responsible migration). Where the needs of migrants are addressed, it is only those aged under 18 years (Target 16.2 focuses on ending trafficking and exploitation of children).

In contrast to the silence of the 2030 Agenda, the government and the media very much focus on migration and migrants. This is true particu-

larly for high-income countries, including Sweden, and often in the context of "managing" large migration flows and a discourse around fostering so-called "sustainable" migration. What sustainable migration actually is, is much less clear. Sustainable for whom? This perspective seems to focus primarily on receiving countries, particularly western, high-income countries, and on ensuring that the number of migrants arriving in the country is limited and that those that do arrive are the "right kind" of migrants. The "right" kinds of migrants seem to refer mostly to highly educated, skilled migrants that can contribute to the labor force as well as the "most deserving" asylum seekers and refugees. There is still a lack of agreement on how this "most deserving" status should be determined – whether it should be geographical and relate to those originating from countries closer to Sweden, or some other scale of threat or atrocity that should be experienced to qualify for support. For example, over several years, fewer and fewer asylum seekers from Afghanistan have had their applications for protection approved, i.e. fewer are considered eligible for protection, while simultaneously, objective measures of violence and insecurity in Afghanistan show an increasing trend.

In fact, this discourse on limiting the number of asylum seekers and refugees that can be accommodated in Sweden is in stark contrast to the increasing need for protection and support faced by many peoples around the world.

Increasing numbers and intensity of conflicts, increasing intolerance and lack of respect of the human rights of minorities, including LGBTQI persons, increased vulnerability due to climate change and extreme weather events have increased the numbers of vulnerable populations on the move and this trend is likely to continue. These events can also be understood as consequences of the failure to achieve sustainable development in vulnerable settings and the impetus for increasing migration flows.

Though sustainable development necessarily needs to take place at the local level, issues around migration and the rights of migrants highlight the need for sustainability and sustainable development to be part of a global process. Many migrants, but especially asylum seekers and refugees, migrate due to a failure of sustainable development in their home countries. It also raises critical questions such as who the duty-bearers are. Asylum seekers leave their home countries, seeking protection from human rights violations and persecutions, often perpetrated by what would otherwise be their duty bearers, local authorities and governments. However, until they arrive in their new host countries they often travel as undocumented migrants, lacking the right to enter the countries in which they apply for asylum are often forcibly kept out. For example, the EU delegated responsibilities to keep migrants out of Europe to countries such as Turkey, Morocco and Libya, all with very questionable human rights records. This potentially increases

the risks they face during their journeys, including as a result of not being able to travel by direct routes, potentially exposing them to people smugglers, traffickers, criminal gangs, as well as corrupt border officials and overcrowded and insecure migrant camps. These journeys can take years to complete. As a result, asylum seekers face persecution in their home countries, a lack of rights during their travels, as well as vulnerabilities once they arrive to their host countries.

Regardless of the type of migrants arriving in Sweden, a substantial shift is taking place, moving from a more welcoming approach to migrants as new permanent members of the communities to a much more temporary approach with temporary residency status and increasing numbers of barriers to permanent residency and citizenship. This shift to temporary residence permits also limits the access migrants have to services, including both health and social services. Migrant children still have full access to health and social services, regardless of their residency status, until their 18th birthdays when this access is then revoked unless they have been granted permanent residency. An additional effect of these policies is an increasing number of migrants that are denied any form of residence permits, but who still remain, either because they cannot be repatriated or because they choose not to, perceiving a difficult life in Sweden to be preferable to the lives that they have left behind. These undocumented migrants lack access

to almost any rights or services. This is, in effect, a structural segregation of migrants where different groups of people in Sweden have access to different rights and services at different points in time.

This exclusion and marginalisation are the root cause of the vulnerabilities faced by migrants, and particularly young migrants, including poverty, poor physical and mental health, exploitation, and violence. These effects do not only impact the individual migrants or even the migrant communities that face these vulnerabilities. I would argue that it impacts the sustainability of communities more broadly, given that a large proportion of migrants do, in fact, end up remaining in Sweden. Is this type of segregation with accompanying vulnerability, over several years, conducive to the development of sustainable communities in the country? The answer is clearly no. For the social sustainability of communities in Sweden, it requires that migrants living in the country feel safe and committed to their new communities, that they are able to live full and meaningful lives and be provided with the conditions to do so.

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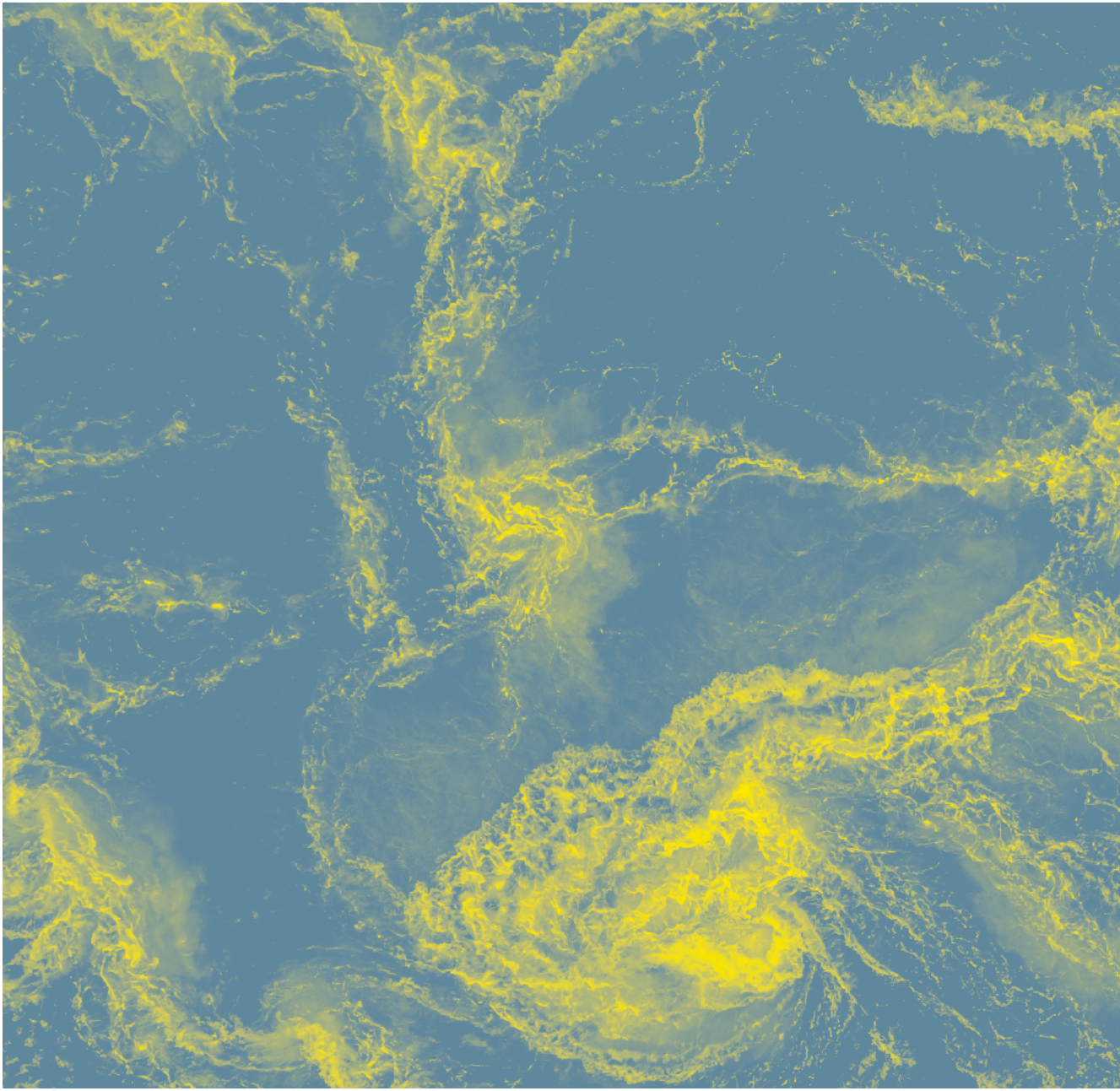

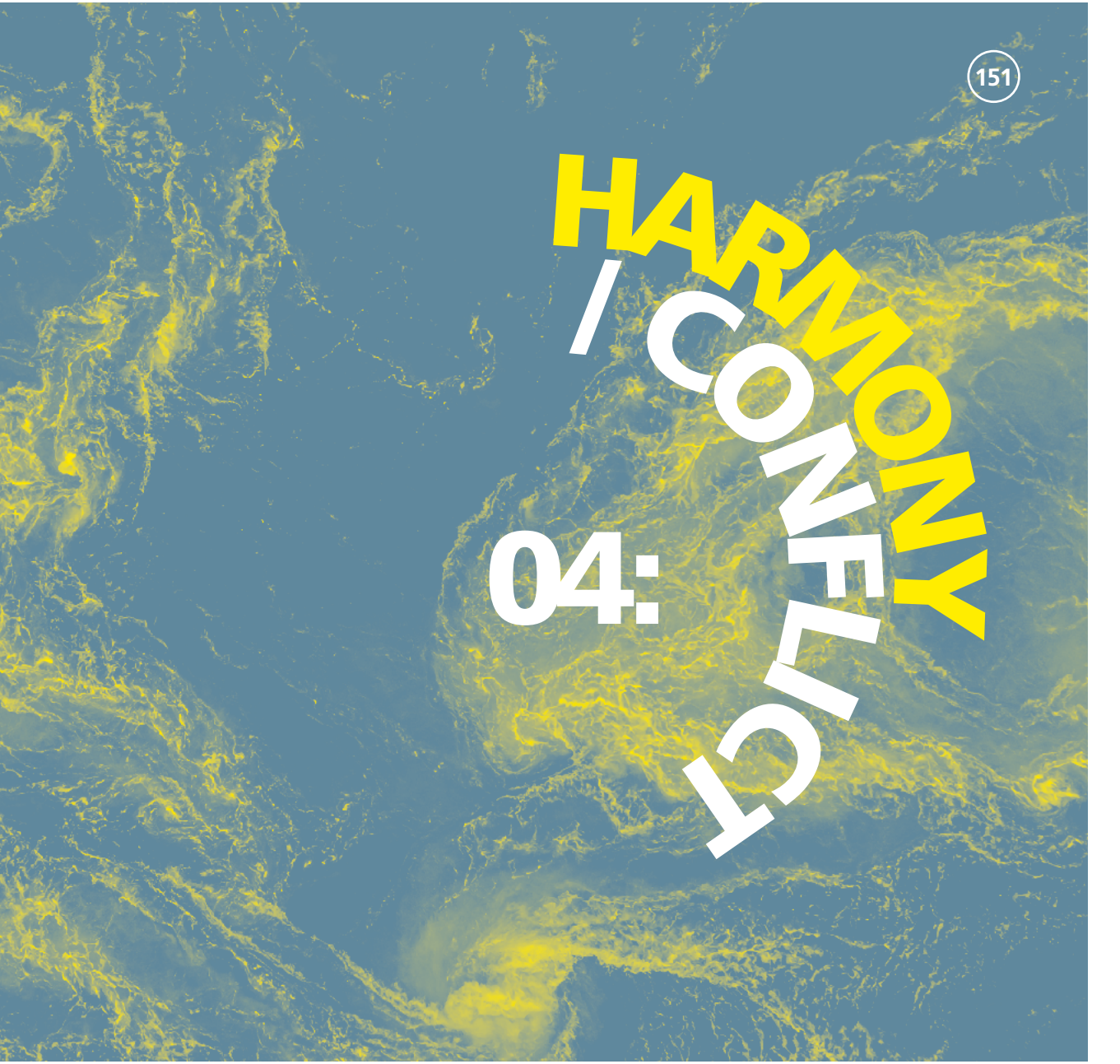
04:
HARMONY
/
CONFLICT

THE DUAL THEMES OF harmony and conflict are central to sustainability research, highlighting the intricate dynamics of striving for balance in an increasingly complex world. Across diverse academic fields, including clinical science, nutrition studies, economic history, political ecology, philosophy, human rights studies, law, and sociology of law; sustainability is revealed as both a unifying aspiration and a site of tension, where differing priorities, values, and strategies converge and compete.

IN THIS SECTION, sustainability emerges as both a unifying concept and a source of tension, regardless of whether environmental and ethical dilemmas of healthcare, the intricate dynamics of sustainable development, or the challenges of scientific practice are being examined. Shared themes of the following texts are the struggle to balance individual needs with collective well-being, the tension

between short-term progress and long-term resilience, and the inequities that arise when marginalised voices are excluded from decision-making. Sustainability is not merely an ideal to be achieved but a continuous conflict between growth, preservation, and equity.

BY ENGAGING WITH THESE challenges, the texts in this section reflect the authors' critical reflections on sustainability as an evolving process, problematising its various manifestations and, when possible, offering pathways to harmonise ecological integrity, social justice, and economic viability.

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REPLICATION AND GENERALISATION FOR A SUSTAINABLE SCIENCE

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THERE ARE NORMS within the scientific community to produce as much content as possible, e.g., papers, chapters, and books, and scientists are often measured and (de)valued based on their productivity. We should not equate scientific results with knowledge. As we continue to increase our scientific production, we risk mixing real knowledge with merely published results, diluting our knowledge accumulation. I try to frame this as a conflict in the sense of an unsustainable scientific practice and suggest a way to alleviate this problem through replication studies. In my own research I have conducted replication studies[1] aimed at generalising our understanding of phenomena and test the robustness of previously published results.

The scientific enterprise can loosely be characterised as an attempt at systematic knowledge accumulation. We want to obtain knowledge, or at least as good of an understanding of something as possible, and not merely publish scientific results. In 2022, the article total in Scopus and Web of Science was approximately 47 percent higher than in 2016.[2] At a rapid pace, the scientific community publishes increasingly more results. Arguably, this publishing frenzy does not accumulate to a corresponding amount of knowledge. How can we make our systematic knowledge accumulation more sustainable in a rapidly growing scientific landscape?

One suggestion is to critically examine published results before integrating them into our understanding of the world. We need to constantly test and

re-test our results to make sure that they are trustworthy, and we need to generalise our understanding of a phenomenon to see how robust it is. Failing to do so can be costly. In 2015, the 'replication crisis' crippled the field of psychology, as most re-tested results published in some of the field's most distinguished journals, failed to replicate or showed significantly decreased effects.[3] What many thought of as novel understandings of the human mind was not much more than disputable results in a fancy format. Re-testing in other fields, e.g., Economics, Political Science, and Medicine has also shown questionable results.[4] For candidate drug targets, only – 20–25 percent of the published data were in line with the re-analysed results.[5] In oncology, only 11 percent of scientific findings were confirmed when 52 'landmark papers' were re-analysed.[6]

Evidently, empirical results should not be equated with knowledge. As scientific production continues to increase, even more published results will likely fail to replicate and generalise to novel contexts. Therefore, when we keep advancing our understanding of the world, we should make more effort to secure the trustworthiness of what we allegedly already know. As replicating results hopefully becomes the norm within most fields, we also ought to encourage the publication of null results. Having an estimate of how many experiments were performed before obtaining a specific result will indicate the robustness of our understanding of a given phenomenon.

Publishing nulls, valid scientific results, will also take some of the burden away from researchers to publish ever more innovative findings, creating more sustainable scientific practices.

Karl Popper, the great philosopher of science[7] famously suggested that we need to do our very best to falsify our scientific beliefs. Every failed attempt at finding a black swan lets us corroborate our belief that swans are white and that is the best we can hope for when using induction as a means of inference. As scientists know, connections between theories, models, hypotheses and data are intricate, and trying to replicate previous results should not be viewed as merely a dismissive exercise. Popper acknowledged the complexity of scientific theorising and stated that a few empirical contradictions are not enough to dismiss an established theory. For example, observational bias or measurement error might affect results. A good approach for tackling those challenges is to try and replicate, and then generalise, what we already know.

In tandem with sound theorising, what we ought to do is to test and re-rest results to corroborate our scientific beliefs. Replication and generalisation are good ways to safeguard against disputable results and obtain more sustainable scientific policies and practices.

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EXPLORING THE HARMONY BETWEEN SUSTAINABLE EATING AND HEALTH

Anna Stubbendorff
/ Faculty of Medicine

TO ME, SUSTAINABILITY means living in a way that supports the long-term health of our planet and its people, ensuring that future generations can thrive within the limits of Earth's resources.

Dietary habits are key drivers of climate change and environmental damage. Human diets are responsible for one-third of greenhouse gas emissions (GHGE), 40 percent of global land use, 70 percent of freshwater use, and 90 percent of biodiversity loss.[1-3] Food systems play a major role in driving environmental degradation and climate change, which in turn affects human health. A more plant-based diet could substantially reduce GHGE and other environmental impacts, while increasing the production of animal-sourced food globally, will further increase environmental damage.[3, 4] Transitioning to sustainable diets is crucial for achieving the United Nations' Sustainable Development Goals and ensuring that human activities remain within planetary limits.[3, 5]

While current human diets are a major contributor to environmental damage, they also play a critical role in global health, with poor dietary patterns significantly contributing to disease and death worldwide. Globally, more than 2.5 billion of adults are classified as overweight or obese, equivalent to 40 percent of all adults.[6] 195 million children under the age of five suffer from stunted growth or wasting, while 20 percent are overweight or obese.[7] The prevalence of non-communicable diseases (NCDs), including

diabetes, cancer, heart disease, stroke and chronic lung disease is at an all-time high. NCDs accounts for a substantial part of morbidity and mortality worldwide, including 74 percent of all deaths globally.[8] Data from the Global burden of disease study suggests that adopting healthy dietary patterns could substantially reduce the risks of morbidity and mortality from NCDs.[9] The study further suggests that a healthy diet could prevent 11 million deaths every year globally. A healthy dietary pattern is high in whole grains, legumes, fruits and vegetables, and limited in red meat and other animal sourced foods.

In response to these health and environmental challenges, we need to find a sustainable way of producing and consuming food. In my research I have demonstrated co-benefits between eating healthy and sustainable. An environmentally sustainable diet also has positive health effects and could lower the risk of mortality,[10] type 2 diabetes,[11] and cardiovascular disease (CVD).[12, 13] While some studies are pointing at an increased risk of micronutrient deficiencies, other have not observed such an association.[14–16]

While the overall relationship between sustainable diets and health is harmonious, concerns about micronutrient deficiencies, economic barriers, and cultural challenges lead some to view these diets through a lens of conflict. However, I think that the biggest conflicts arise from personal opinions. Since eating is an activity we all engage in, it naturally invites a wide range

of experiences and opinions on nutritional research, even among researchers themselves. How much should personal biases influence which results we choose to highlight? While the objective truth might not exist, research about diets should at least aim to have an objective approach. I believe that we as researchers, must carefully consider the role of personal beliefs in how we interpret and present findings even regarding such an everyday experience.

Ultimately, sustainable eating should not be framed as a choice between health and environmental responsibility. Instead, it offers a unique opportunity to align these goals, fostering a future where we can nourish both people and the planet. As researchers and global citizens, we must take responsibility for advancing this narrative, ensuring that personal opinions and potential conflicts do not overshadow the broader benefits of sustainable eating.

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SUSTAINABILITY WITH AN ENGINEERING APPROACH

A REFLECTIVE EXPLORATION

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SUSTAINABLE DEVELOPMENT is often defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".[1] This definition, coming from the Brundtland Commission, highlights the ethical imperative of balancing present needs with future well-being. As I reflect on my PhD project through this lens, I initially thought of sustainability as a state of perfect harmony – a scenario where technological innovation, environmental health, and social well-being could advance together without big compromises.

However, when a deeper investigation is carried out into the concept, it reveals a more complex reality. Sustainable development comprises multiple dimensions – environmental, social, and economic – which do not automatically coincide or can even conflict. The United Nations' 2030 Agenda emphasises that the global sustainability goals are "integrated and indivisible" and must "balance the three dimensions of sustainable development: economic, social and environmental".[2] My project sits at the intersection of these interests. On one hand, there is the drive for innovation and technical success, an economic and engineering motivation. On the other hand, there are environmental limits and societal expectations that set boundaries on what is acceptable or desirable. Rather than viewing these factors as opposing forces in separate "harmony" and "conflict" boxes, I see them as a continuum of considerations that must be balanced in practice.

Focusing on my research context, when I started working on my PhD, I believed my research would naturally help the planet and support a future where people and nature can advance together. My focus is on improving how we reuse materials in cast iron parts, especially those used in heavy-duty vehicles. In theory, this kind of work should reduce how much new iron ore is mined, saving energy and cutting emissions. Yet I have discovered that sustainability is rarely this straightforward. Although my research may make production cleaner, the end products (internal combustion engine (ICE) vehicles) still burn fuel and produce harmful gases. This creates a tension: Are we really closer to a green future if we keep supporting an industry whose main product is a source of pollution?

I once pictured sustainability as a smooth path where everything lines up: resource use goes down, emissions drop, and society benefits all at once. But the more I look at it, the more I see that progress in one area can cause problems in another. For instance, if improving recyclability makes cast iron production cheaper, it could encourage more production, and thus more vehicles on the road. That extra traffic might lead to higher overall emissions.

At the same time, I do not want to say that my research is useless or harmful. Turning to recycled materials instead of mining fresh ore is a real step in the right direction. Mining iron ore consumes energy, causes land damage,

and can lead to pollution in surrounding areas. By making recycled cast iron more reliable, I hope to lessen the demand for new ore. If a company can produce strong, high-quality cast iron from scrap metal, we get closer to a circular economy.

A good example of the potential harmony is how new cutting tools or modern recycling processes can make production more efficient. My research tests show that if the material's chemical makeup is consistent, it is easier to predict how long cutting tools last. That helps reduce downtime and scrap. When we use recycled material, though, there might be hidden elements in small amounts that throw off those calculations. A tiny bit of tin or copper, for instance, can lead to brittle spots or cause unexpected wear on cutting tools. To address this, I work on testing methods that find and measure these trace elements. If we can deal with them or manage them properly, it becomes easier to plan production schedules and prevent the waste of raw materials.

Yet the conflict comes into play when we consider how the end-product itself (a vehicle) is used, often for many years on the road. All those supposed gains in the factory might be overshadowed by the emissions the engine produces over its lifetime. And it is not only carbon emissions, but also local air pollutants that affect health in cities. This reality makes me pause and think: Is my project actually driving us toward a more sustainable future, or is it just making a polluting system somewhat less harmful?

Another angle to this issue is the incentives set by society and businesses. I ask myself: Are we improving recycling because we genuinely want fewer mines and lower emissions, or because it is getting expensive to mine new ore and materials are scarce? Is it possible that better recyclability supports a system that might keep making ICE parts, delaying a switch to cleaner technologies like electric or hydrogen-based vehicles? This is not a simple yes-or-no question. Of course, I hope that making cast iron recycling more robust is done for good reasons, but I know that economic pressures can play a big role. If recycling makes production cheaper, industry might produce more of the same old engines before deciding to switch to greener alternatives. That feels like a step backwards in the long run.

On the other hand, if we have cleaner, less energy-intensive production, we are at least cutting emissions in the short term. And while the world might eventually move to other engine types, heavy-duty ICE vehicles could still be around for years or even decades. During that time, it is better for the environment to create these parts using as many recycled materials as possible rather than new ore. However, this logic can also become an excuse to keep business as usual. It is a tricky balance between making a current system better and recognising that this system might need to change entirely.

All these reflections lead me to wonder about my responsibility as an engineer. Engineering is about solving problems, often with a focus on costs,

reliability, and performance. Lately, more of us also think about environment and community impact. But in a commercial setting, sustainability often shows up as a "target" or "metric," while the real driver might be profit. I must figure out how to do my work with integrity and ethics, measuring and communicating the benefits as well as the drawbacks.

For example, if I show that my new methods reduce energy use by 10 percent in the factory, I should also mention that the life-cycle emissions of the final vehicle are still quite high. Perhaps that will push some decision-makers to invest further in green technology. Or it might reveal that we should design these iron parts so they can be repurposed or disassembled more easily, encouraging more advanced recycling once the vehicle's life is over. This is the engineer's challenge: how do we design systems with a long-term, multi-stage perspective?

In the end, I have come to accept that no single project will fix all our sustainability problems, especially if it stays inside a larger framework that is not entirely green. Yet I still believe that projects like mine have value. Making cast iron recycling more effective cuts back on mining, saves energy in foundries, and reduces overall waste in production. These are real gains, and they can push the industry to look more closely at their processes. At the same time, I have to be honest that as long as these parts go into vehicles burning fossil fuels, we are addressing only part of the problem.

This conflict does not mean I should stop or feel paralysed. Instead, I want to keep the bigger picture in mind and remain open to the idea that truly sustainable transport may mean moving away from traditional engines altogether. Maybe some of the skills and methods developed in my project can later be used to recycle parts for electric vehicle components or hydrogen systems.

I do believe my research can contribute to a better future, but I also believe that to fully meet our climate goals, we have to look at the entire life-cycle and how the final goods are used. My project is just one piece of the puzzle, and there is still a lot of work to do on both the technology and the policy side to address the real root cause of pollution and resource depletion: our continued dependence on fossil fuels.

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FIGHTING FOR SUSTAINABILITY WITHIN LAW'S ONTOLOGICAL AMBIVALENCE

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/ Faculty of Social Sciences

SUSTAINABILITY IS A conflict and there are legal reasons for why that is the case. In this short essay, I argue that there are features of law that make the process of doing sustainability inevitably conflictual. To develop my argument, I build on socio-legal theory and examples from my doctoral research project to contend that law provides at the same time a resource for unsustainable and sustainable processes. This tension within law originates societal conflicts, frequently fought in law's terrain, thus making sustainability a conflictual process.

To begin with, I need to clarify what I mean by sustainability. While I am aware that the concept is multifaceted and debates on its definitional province abound,[1] in this essay I consider sustainability and sustainable development[2] as synonyms and adopt the conventional definition outlined in the Brundtland Report,[3] according to which "development that meets the needs of the present without compromising the ability of future generations to meet their own needs, is sustainable. Accordingly, any human activity must be carried out respecting the needs of future generations; this places an ethical imperative over current generations, to design and perform socioeconomic activities in a way that neither depletes resources nor generates harm toward human and nonhuman beings. This imperative invites us to rethink our relationship with nature and amongst us in ecological terms, pushing us to reimagine and redesign our socioeconomic activities. Industries, transportation, and eating habits are all examples of common activ-

ities that have a substantial impact on our planet. These activities can be heavily unsustainable, as they lead to resource depletion and/or are harmful for human and nonhuman beings. For instance, industrial production can be strongly unsustainable. Perhaps, it is ontologically unsustainable, as it is premised on the process of extracting resources from the Earth for the purpose of transforming them into objects that feed unsustainable consuming practices; they can also generate high levels of pollution that are at the origin of global warming as well as toxic for humans and nonhumans. Practices such as industrial activities should therefore be redesigned and restructured, if we want our economic culture to be sustainable, and structures sustaining these activities should thus be dismantled or, at least, rearranged in more sustainable modalities.

Among these structures, one can find law. Law is an instrument that can be utilised to support and sustain unsustainable practices. Law is never neutral; it is the outcome of a struggle, where various players compete utilising their accumulated social, cultural, economic, political, and juridical capital to make the most of their interest, as Bourdieu[4] convincingly argued. It is thus unsurprising to discover that laws reproduce the interests of those who have more socioeconomic power. Law is juridified capital, law legalises and thus legal-reifies social dynamics, inequalities, imbalances. There is something about law's nature that makes it so permeable to non-legal interests;

as Niklas Luhmann[5] showed, law is disinterested in questions of morality. While, of course, it carries an underlying morality, law can legalise any kind of non-legal interest, regardless of its moral implications or societal impacts. This story about law reflects the main tenet of legal positivism, namely, that law is the decision of the political authority and, as such, it reproduces whatever value the groups in power ascribe to it. A Marxist reading of this process leads to conclude that law inevitably crystallizes the unequal economic relationships in society as big economic and financial players have the means to influence the lawmaking process and thus translate their interests in laws and regulations.

My doctoral research project shows this aspect of law quite vividly. We are in Taranto, in the South of Italy, a city that is home to the largest steel industry in Europe, Ilva, which plays a pivotal role in the local and the Italian economy. The industry has created for decades an environmental and health crisis; as proved by proved by epidemiological and public health research.[6] Nonetheless, the Italian state has passed for more than a decade pieces of legislation that have legalised, and thus legitimised, the industrial activity of Ilva. In particular, this legislation has constantly created a favorable legal environment for the factory by adjusting the legal prerequisites of its authorisation to produce. These laws are unsustainable, as they do "compromise the ability of future generations to meet their own needs": Ilva's production is linked to

the degradation of the environment[7] and to serious diseases, as well as death, in the whole population, including children.[8] Accordingly, my research shows that law is a vehicle for unsustainable economic activities. By being permeable to any economic interest, law bends to economic pressures and legalises the interest of the Italian state in Ilva continuing to produce, in order to sustain Italy's political economy of steel, where Ilva plays a pivotal role. In this scenario, law produces and reproduces unsustainability.

But that is not the whole story about law. As Bourdieu[9] explains, not only is law the result of a struggle where players with unequal capital compete. Once it is passed, a law is framed in universal terms, thus obscuring its socio-political underpinnings and the power dynamics that underscored its adoption. So here comes a fundamental tension that is inherent in the way law is and operates: while law is the juridification of particular non-legal interests, it is drafted in a way that conceals such interests. And it is in the concealment of its socio-political underpinnings that law's potential for resistance and emancipation lies. Law contains within itself the seeds for resistance.[10] By obscuring the socio-political interests that lie at its heart with a universal declaration in the interest of all, law has no owners. Laws belong to no one, and thus to everyone. Everyone can appropriate law's terminology and make use of it for their own purposes.

This too is shown in my doctoral project. In Taranto, local residents have formed groups and organisations and have resorted to law to fight Ilva and its industrial pollution. In fact, they have initiated lawsuits at the local, national, and European level, with the overarching goal of shutting down the factory and radically restructure Taranto's economy. They regularly demonstrate and protest utilising legal language to make the Italian government accountable for allowing Ilva to continue producing. Rights discourse permeate their battles; and that is because rights are framed in universal terms, they can be appropriated by anyone and articulated in any battle, including the one for environmental justice carried out in Taranto. For instance, in 2022 Italy amended articles 9 and 41 of the Constitution, which now declare, respectively: "The Republic […] shall safeguard the environment, biodiversity and ecosystems, also in the interest of future generations.", and "Private economic enterprise […] cannot be carried out […] in such a manner as may harm […] the environment, safety, liberty and human dignity. The law shall determine appropriate programmes and checks to ensure that public and private economic enterprise activity be directed at and coordinated for social and environmental purposes." These laws are now a staple of the fight of Taranto's social movements. They show the other side of law's promise to sustainability: laws offer a repertoire

of resources that people can use to make governments and corporations accountable for their unsustainable practices, and to advance a different discourse and practice of development, decoupled from industrialisation and inspired by the rich natural resources that are present in Taranto's territory.

In sum, sustainability is inevitably a conflictual process because any effort towards sustainable development is also a legal effort. In our society, law is an "inescapable presence"[11] and its dual nature generate conflict inevitably. Governments and businesses will pass unsustainable laws to perpetuate and reproduce capitalist extractive development, while marginalised communities will fight for environmental and social justice. This conflict is also a legal conflict, and it is a legal conflict because law is ontologically divided and divisive. Law is impartial and partial at the same time, universal and particular, neutral and political, poor and rich, God and gimmick.[12] Law has a dark and a light side, and any discussion on sustainability must come to terms with this ambivalence, while never disregarding the unequal power relations between state and corporations on the one hand, and ordinary people on the other.

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THE CONFLICTUAL RELATION OF SUSTAINABLE DEVELOPMENT AND HUMAN RIGHTS

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THE 2030 AGENDA for Sustainable Development has become the leading star in the global quest of forming sustainable societies. With its seventeen goals and 230+ indicators, it is supposed to lead the world towards a more sustainable future. Though a relevant question question is: how well is the 2030 Agenda harmonising with other international standards and obligations such as human rights?

The 2030 Agenda tells us that the signatories "reaffirm the importance of the Universal Declaration of Human Rights, as well as other international instruments relating to human rights and international law".[1] The claimed harmony between the 2030 Agenda and the human rights framework can also be found on a local level, we can take the city where I live and work as an example. The city of Lund is a so-called "human rights city" which generally means that the local government has declared to follow human rights principles in its governance and that they together with local stakeholders make sure to uphold this standard.[2] The programme that the municipality has set up to ensure that they fulfil this role is a program for social sustainability and the implementation of the Sustainable Development Goals in the city.[3] Human rights fulfilment and SDG implementation seem to go hand in hand both on a global and local level, (a trend that can be found in many more cities than Lund).[4]

As a researcher in interdisciplinary human rights studies, I see it as my obligation to problematise this assumed harmony and to investigate potential conflicts. To start, human rights and the SDGs are built on rather opposing ideas of what global governance is. The 2030 Agenda promotes "governance by numbers" (i.e. the promotion of goals and strong reliance on targets, indicators and big data[5]), as the nature of the Agenda is non-binding where states enjoy extensive leeway.[6] The SDGs are followed-up through a self-promoting reporting system, where progress areas are highlighted and issues sidelined. This moves away from the human rights discourse where global governance is centred foremost around upholding and promoting international law and the adherence to human rights principles. The existing human rights monitoring system is not perfect. However, one of its strengths lies in having a peer-review system, a strength that the SDG framework has not utilised[7]. It seems as if the governance system is moving apart but the language of rights and goals are coming together. This leaves us with an enigmatic question; if human rights claims are understood as goal fulfilment what happens if an SDG is not fully reached? Is it an almost-reached SDG or a is it a human rights violation?

With this said, I do not praise the human rights system, its legalistic approach and rather weak accountability mechanisms might not be the tool to help the global efforts to make sure that life on the planet can be sustained beyond our lifespan. Instead, climate change and human rights might illustrate yet another conflict as human rights are based on the moral idea

that humans have a specific value and dignity, giving us rights, above all other beings and ecosystems. This means that resources, animals, and ecological systems are rights objectives fulfilling human rights, instead of having rights in themselves. Climate change, from a human rights perspective might just mean more of the same, praising the anthropocentric worldview that can be seen as one of the root causes of the sustainability conflict. It might be so that other moral ideas are better suited to harmonise human existence with other beings and ecosystems, and limit humans' entitlements to fit within the planetary boundaries.[8] Thus, maybe neither human rights nor the 2030 Agenda should work as roadmaps in the transformation toward a more sustainable future. We might need to envision a future that is beyond the sustainability imaginaries presented to us by the international system. But to do so we have to start by discussing the conflicts that inherently exist in the sustainability discourse, both globally and locally.

The two example I have illustrated in this text – the assumed harmony between human rights and the SDGs and the moral conflict between human rights and climate change – are important conflicts that we need to address when we discuss sustainability. If we do not discuss conflicts in the quest of finding a sustainable pathway, and there are many conflicts along such path, we risk that the whole sustainability discourse gets kidnapped and that the president of COP29's host country can claim that oil and gas is the "gift of god" without really being questioned.[9]

CONFLICT AND HARMONY ARE NOT ANTONYMS

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ONE OF THE LAST QUESTIONS that I was asked during the interview from which I was selected to join the Agenda 2030 Graduate School was about sustainable development. I don't remember the question exactly, nor my answer. I remember that I said something more or less like "it is the same struggle", referring to the relationships between the Sustainable Development Goals and how I imagined sustainability on the ground of the empirical case I proposed to research. In retrospect, I think that I implied that some kind of harmony between different sustainability agendas must be found. Yet, I also think that conflict is as much a condition of human societies as harmony is. And this makes me wonder whether conflict and harmony are antonyms or not.

Harmony is a polysemic word. Etymologically, harmony refers to multiplicities that are joined or somehow related to each other forming some kind of whole. It is used in music to refer to the relationship between a plurality of notes or chords that are played at the same time or consecutively like in a song. And of course, it has some kind of enabling characteristic when applied to human societies, suggesting that social relations *could* (which is not to say *need, ought to,* or *should always*) be based on things like agreement or consensus. But a stark difference between harmony in music and social harmony is that notes and chords do not play themselves, while social relations are to some degree played by the very agents relating to each other.

And just like there are dominant notes, there are people who can exercise dominance over others and there are people who also discipline themselves according to their own preconceptions, therefore materialising different manifestations of what is commonly interpreted as power. In this simple example, two big conceptions of power are deliberately mentioned: power as a hierarchical mechanism and power as productive.

Power is experienced in everyday life, it can be a mixture of external and internal ways of conducting the self. For example, in Scania, the region where I live, I generally commute between Malmö and Lund by bus. Sometimes I sit in one of the two single seats at the front of the bus but behind the driver. Both seats face a wall with a kid putting their index finger in front of their mouth saying "*sshhh*". Choosing to stay silent in the front seat of the yellow Skånetrafiken bus on my way to and from work or choosing to speak is an internal dimension of power. But it can be something hierarchically imposed by someone onto someone else like the silence sign on the bus. The exercise of power sometimes enters into tension with the idea that social relations are enabled by agreement or consent, when they can also be imposed through mechanisms of power and coercion. And to further complicate matters, several mechanisms of consent, such as some kinds of contracts, are in practice enabled by mechanisms of power manifested in decision making processes, participation, inclusion, and so on. The other

day I tried to end a yearly gym subscription early and asked for a refund equivalent to the time of the contract that I was not going to use, only to find that some terms and conditions said I wasn't entitled to this claim, terms and conditions that I couldn't disagree with if I wished to enter into the gym membership contract in the first place.

So, what does all of this have to do with sustainable development? I will eventually come back to the reflection about my interview answer. Before, I have to write a few lines about some of the findings of my research. During my PhD I have looked at what is commonly referred to as a resource conflict. This conflict was ignited by the arrival of a Canadian mining company to the Colombian Andean-Amazon, holding a mining exploration license. This exploration license plays with consent and power in very creative ways. The company claims to have rights associated to the place (read: geographical location) bounded by the licence. Yet, at the same time it does not have the right to explore minerals but the obligation. The Colombian national state has the power to impose sanctions to the company, for example, should the company fail in fulfilling its obligations. But the company is not the only actor that has rights over or obligations towards this place. A portion of the mining licence overlaps with the territory of an indigenous reservation that belongs to the Inga people. This collectively owned territory introduces a very specific set of rights and obligations. Further, the

license overlaps with several sensitive ecological locations and lies within the municipality of Mocoa, capital of the Putumayo region. Further, the physical landscape comprehended in the license is the Andean-Amazonic piedmont known for being geologically unstable and prone to events commonly known as natural disasters like the avalanche that ravaged the city of Mocoa in 2017, claiming the lives of hundreds of people, injuring thousands, and leaving more than 900 families homeless.

The exploration that the company has the obligation to conduct is to explore a copper porphyry deposit. But exploration, as I have found, is so much more than looking for a viable concentration of minerals in an underground deposit. It also involves exploring the right social relations that will enable this project to go on. This is where sustainable development comes in. Copper is considered as a strategic mineral for an energy transition. The energy transition is a commonplace academic and political concept that focuses on mitigating climate change by reducing the dependence of energy systems worldwide on fossil fuels. This dependence is considered by many to be a significant cause of CO2 emissions, the main though not the only culprit of the excessive greenhouse effect. During the modern-colonial development era of the past 200 years or so, with an intensification period during the last 70 years, this excessive greenhouse effect has produced an increase in the mean temperature of the Earth and, alongside, a change in the Earth's climate

which increases the severity and frequency of climate related events. Sustainable development rests on the desire to continue modern-colonial development but fixing its social and ecological problems, amongst which climate change receives big attention. Sustainably developing the Putumayo and the planet necessitates newly mined copper, the copper that the mining company is exploring for.

The Putumayo, the company affirms, can save the world by allowing for the extraction of copper from the mineral deposit under the mountains of Mocoa. Mountains that are sacred beings for the indigenous peoples of the Andean-Amazonic piedmont. Mountains from which the water that feeds the Amazon rainforest falls from through an unfathomable number of creeks that become rivers that eventually join the mighty Amazon River. Mountains whose highlands have the moors where the flying rivers return from the air to continue the cycle of water that produces and reproduces life. Mountains that have spirits. Mountains that are Earth beings. Mountains that can destroy cities and towns almost effortlessly. Mountains that the peoples of Mocoa love and respect. Mountains that are the source of so much life.

But the company insists. Copper is a critical mineral for the energy transition. “The future is not stopping and neither are we” they say in their corporate radio show. There is no clean energy without vast amounts of newly mined copper. Mining is necessary to mitigate climate change. At the same

time, there is no escaping the vast pollution of newly mined copper. To remove one pound of copper, hundreds of pounds of sulphur-rich soil must be brought to the surface. This sulphur will react with bacteria, air and water, making water bodies more acidic. More acid water bodies, like rivers, will more effectively dissolve the other heavy metals such as arsenic and mercury. Eventually, these polluted waters will enter the bodies of the flora and fauna, affecting the territory's capacity to produce and sustain life. Yet, through a combination of social tactics under their "good neighbour" strategy the company has earned the favour of more and more communities near to the licensed area, including a portion of the Inga people that inhabit the overlapped territory. The territory, some Inga people will affirm, becomes disharmonised. Fancy that…

Sustainable development here carries many different conflicts. How can threatening the life of the mountains be sustainable? How can ending sources of life be understood as development? Many people in Mocoa and in the Putumayo are quick to emphasise that that is not the kind of development nor the kind of sustainability that they want. The needs for a decarbonised energy system worldwide are in conflict with the needs of keeping the Andean-Amazon a living territory, lush in the material and spiritual senses.

So, how are these the same struggle? This is a very sensitive question regarding harmony and conflict. Throughout the colonial industrial era, the occupation of territories by different empires and nation states has not been conducted by people who think that they are doing the wrong thing. In fact, reality is rather the opposite. This expansions have mostly been legitimised as good. They have been legitimised, and oftentimes *consensually imposed*, as a necessity in the path towards progress of the people in these colonised places while in practice most of them were only exploited for their ability to be a resource, human or natural. Pretending like sustainable development can be harmonious, whether in the present or some imagined future, is noble but it is a perspective that to me cannot be separated from the historical colonial desire of some human societies to access and exploit the resources of another territory. Harmony and conflict in this sense coexist. They are not antonyms. They coexist similarly to how consent and coercion coexist. The harmonious arrangement that leads some people to live in better conditions can be (has been, in fact) the result of making others spit blood, as Atahualpa Yupanqui sings.

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HEALTHY PLANET, HEALTHY PEOPLE?

Linn Hemberg
/ Faculty of Medicine

FIRST DO NO HARM is the guiding principle of healthcare workers all over the world. In an era of climate change, biodiversity loss and other environmental challenges it can be regarded as quite a paradox that healthcare, which is intended to do no harm account for about five percent of the global net emission of greenhouse gases, contributing to the climate crisis which is regarded as the single largest threat to humanity in the 21st century.[1] Up until now, or at least a few decades ago, the resource-demanding activities of healthcare have been justified by the aim of saving lives. This raises fundamental questions: how do we reconcile the conflicting goals of high-quality individual care with the collective need for a sustainable planet? And can we find harmony between these priorities?

Three important notions regarding the conflicting goals of individual high-quality care and the collective need for a sustainable planet are:

- High-quality care in developed countries disproportionally drives emissions of greenhouse gases
- Expanding care globally would require additional resources, increasing the environmental harm, and
- Redistribution alone is insufficient without systematic innovations to reduce healthcare's footprint.

Here in lies a clear conflict and that is that ensuring equitable access to high-quality healthcare globally would likely exacerbate environmental pressures unless profound systemic changes are made. The question is then how to achieve harmony between these priorities?

Harmony could be achieved by viewing healthcare as part of a broader societal ecosystem. By addressing healthcare's environmental footprint in tandem with other sectors, we can achieve synergies that benefit all. The greatest change, with greatest meaning both great as in positive and great as in huge, is changing from fossil fuels to renewable energy. More than 50 percent of healthcare's impact is attributional to energy consumption, at hospitals but mainly throughout the supply chain and the production of items, pharmaceuticals, fuel for transportation vehicles, and other things needed to deliver high quality care. Since fossil fuels have at least ten times higher climate impact than renewable sources, huge reductions in emissions can be achieved through a transition to green energy. Reducing the use of fossil fuels not only lower the emission of greenhouse gases but also the amount of air pollution let out into the air which is harmful to human health in itself. Another example of how emissions can be cut and at the same time positively affect care, health, and financial costs are through using less animal-sourced food provided to patients at the hospital. Another example is to reduce the amount of single-use material that is used within the hospital system, since this would

reduce the need of virgin resources, reduce the amount of the amount of waste generated and has the potential to lower financial costs. One last example is to refuse low value care, there is several known treatments which are given routinely without any indication that it actually helps the patient. Adhering to evidence-based healthcare would therefore not only decrease potential risk of unnecessary harm that treatments might pose to the patients but also reduce the resource use and environmental load as well as saving both time and money.[2]

To conclude, if systemic changes are made, we might be able to ensure equitable access to high-quality healthcare globally without exacerbating environmental pressures. A healthy planet is an undeniable requirement to ensure the health of future generations, and promoting healthier lives for people today will help us reach that goal by reducing the present demand of healthcare.

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SUSTAINABLE DEVELOPMENT

A TRAGEDY IN THREE ACTS

Mahesh Menon*
/ Faculty of Law

Act I: Genesis
Scene I: A palace of Conference

[Enter the North Wind and South Wind,
in heated debate]

North Wind:
Hear me, hear me, hear me!
O fair South, why dost thou claim the skies?
While nature weeps beneath thy hasty strides?
Shall we not cherish what the earth supplies,
Or let thy greed lead to her woeful tides?

South Wind:
O frosty North, thy chill doth blind the heart!
Our kin in hunger yearn for brighter days.
Shall we, in fear, from progress drift apart,
While hope and promise lead us through the haze?

[Thunder rolls, the stage darkens, and enter a
Shadowy Figure]

Shadowy Figure:
Peace! Ye winds of North and South, take heed!
A path must bloom where both your thoughts collide.
For in this clash, a fertile ground we need,
To forge a way where none need be denied.

[A dim light shines, and "Sustainable Development" appears, wavering]

Shadowy Figure:
Behold! Sustainable Development, a call!
A bond 'twixt growth and care for all mankind,
A promise bright, lest we in darkness fall,
For every heart and hope, let us be kind

North Wind:
What sorcery is this, that doth appear to reconcile our opposed desires?

South Wind:
Perchance this concept, shining clear, May quench our long-embattled fires.

All:
Sustainable Development, thou art
A balm for both the Earth and Man,
In thee, we find a noble start,
A cause to hold and wisdom's plan

[Exits, all nodding in agreement]

Act II: The Clamour of the Square
Scene I: The Public Square

[Enter a crowd of Citizens, Scholars, and Leaders]

Citizen 1:
Hear ye, hear ye, good people all! A wondrous phrase doth grace our ears!

Citizen 2:
Pray tell, what wisdom doth enthrall? What hope now doth at our door stand?

Scholar 1:
'Tis Sustainable Development, friend, A cure for all that ails our sphere!

Leader 1:
From North to South, this trend we'll send, And all shall hold this concept dear!

[The crowd begins to murmur, confusion brewing]

Citizen 3:
But soft! What doth this phrase portend? Its essence shifts like shadows in the night!

Scholar 2:
Fear not! Its power doth extend to many fields, both new and stern!

Leader 2:
In policy and law we'll weave this spell,
Though what it means, we know not, we'll proclaim!

The crowd begins to chant "Sustainable Development" with increasing fervour]

[Enter a Jester, dancing among the crowd]

Jester:
O Sustainable Development, how sweet thy name!
Yet naught can say with certainty thy course!

What shall we gain, and what must bear the shame,
If all must strive to hold thee, in remorse?

[The crowd laughs, then continues their enthusiastic chanting]

All:
Sustainable Development, our guiding light!
We'll follow thee through day and night!
Though what thou art, we cannot say,
We'll sing thy praises anyway!

[Exeunt, all dancing and cheering]

Act III: Judgment
Scene I: A Court in a Southern Land

Enter a Judge, wearing robes that change colour. Two figures, one adorned in gold (Wealth) and one in rags (Poverty), watch from opposite corners

Judge:
In this fair land of ancient lore,
We sit to weigh man's fate and tree's,

With sustainable development at our core,
We'll shape what is and what shall be.

[Enter an Industrialist and a Poor Labourer]

Industrialist:
Your Honour, see our factory's might,
It brings us wealth and gives us bread!

Poor Labourer:
But sir, our air turns black as night,
And in our lungs, we feel its dread.

Judge: (**robes turning slightly green**)
Our sacred river must flow free,
We cannot let pollution reign.
Your factory, sir, it must not be,
Lest nature's balance we disdain.

[The Poor Labourer looks relieved, but then troubled]

Poor Labourer:
But wait, my lord! If work should cease,
How shall my children eat this night?

Judge: (robes turning slightly gold)
Ah yes, indeed. Let troubles ease.
Perhaps we'll find another light.

[Enter a Forest Officer and a Tribal Elder]

Forest Officer:
These ancient woods, we must preserve,
For all the wealth that in them lies.

Tribal Elder:
But sir, these forests that we serve
Are homes we've known through joy and pain.

Judge: (robes now a mix of green and gold)
The trees must stand, the air stay pure,
But progress too must have its day.
A balance fine, though rarely seen,
Though some may fall along the way.

[The figure adorned in gold steps forward]

Figure of Wealth:
Your Honour, see the nation's growth,
The promise of prosperity!

Let not old thinking make you loath,
To growth that so doth now abound!

[The figure in rags steps forward]

Figure of Poverty:
But what of those who bear the cost?
The poor who suffer either way?
In flood or drought, their homes are lost,
In growth or green, they're led astray.

Judge: (**robes now predominantly gold**)
A moral dilemma, profound indeed!
To balance all, a task supreme.
Yet forward we must go, though dim,
To shape our law, to plant our seed.

The scales of justice tip.

[All look expectantly at the Judge]

Judge:
Let industries their work resume,
With fines to heal the Earth's own pain.

Let forests fall, though not in gloom,
For greater gain and greater gain.

[The Poor Labourer and Tribal Elder look dejected]

Poor Labourer and Tribal Elder: (together)
In name of balance, we are lost,
Our homes, our health, our ancient ways.
Development at any cost,
Leaves us adrift in future days.

[The Figure of Wealth smiles, the Figure of Poverty weeps]

Judge: (robes now almost entirely gold)
Thus, do we chart our nation's course,
In sustainable development's name.
Though some may call it fraud or worse,
Progress and peace are our aim.

[Exeunt all, leaving the stage to the Figure of Poverty]

Figure of Poverty:
To grow, or not to grow—that is the cry:
Whether 'tis nobler to endure the pain

Of hunger, thirst, and lives undone by greed,
Or to resist, and by resistance, fall.
To stop, to pause—no more—and in that pause
Find ruin, as progress leaves us far behind.
For in that growth, what price must we endure,
When every step brings wealth but not to us?
Thus, do we feed their golden dreams, and starve,
While they build higher, we sink ever low.
To grow, or not to grow? —In truth, no choice,
For we are lost, whichever path we tread.

[Exit Figure of Poverty]

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AUTHORS

IN ORDER OF THEIR CONTRIBUTIONS

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is a Greek lawyer and Post-Doctoral Researcher at Lund University. Her work engages with sustainability, social rights and critical legal history and in her free time she enjoys bouldering, running and complaining as a way to connect with others.

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PhD candidate in Theatre and Performance. I am a Queer diasporic artist-researcher interested in raising questions concerning the interconnections of performing arts, decolonisation, migration and sustainability. I believe in the regenerative powers of Nature and the arts.

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PhD candidate in Infectious Medicine. A medical doctor and public health specialist who is passionate about advancing research and public health management on a global scale, with a specific interest in building a resilient healthcare system in Africa.

Lina Van Dooren

I am a PhD candidate in music education at the Malmö Academy of Music. Through my passion for music and teaching I try to find ways to create sustainable worlds together.

Tanya Andersson Nystedt

is a PhD in Social Medicine and Global Health. A public health and international development professional interested in health equity and the social determinants of health.

Alexander Tagesson

is a PhD candidate in Cognitive Science at the Department of Philosophy. He is interested in the role of empathy and compassion in prosocial behavior.

Anna Stubbendorff

is a PhD candidate in nutritional epidemiology at the department of clinical Sciences, Malmö. Anna is a clinical dietitian and communicator. Her research explores the health effects of eating environmentally sustainable.

Juan Manuel Bello Bermejo

PhD candidate at the Department of Industrial and Mechanical Sciences. Juanma is a PhD student at Lund University working on material recycling and sustainability in cast iron production. Beyond research, he enjoys reflecting on the broader impact of engineering on society and balancing academic life with a curiosity for history, technology, and everyday problem-solving.

Carlo Nicoli Aldini

I am a PhD candidate in Sociology of Law at Lund University. I am interested in the role of law as both a tool of domination and resistance, and I study this phenomenon in local fights for environmental justice.

Emelie Lantz

is a PhD candidate in Human Right Studies at the Faculty of Humanities. Her study focuses on what social sustainability means in practice in urban civil society-public partnerships.

Juan Antonio Samper

I am a Phd student at Lund University's Centre for Sustainability Studies. I research the case of a mineral exploration project in the Colombian Andean-Amazon in the context of a peacebuilding cycle.

Linn Hemberg

PhD candidate at the department of clinical Sciences. Linn has a background in environmental science and explore the climate and environmental impact from intensive and perioperative care in her research with the aim to find sustainable healthcare practices.

Mahesh Menon

is a Doctoral candidate at the Faculty of Law, Lund University. His research examines the application of 'sustainable development' in court cases in India, with a focus on what this does to the distribution of power and resources across different stakeholders.

ENDNOTES

01: PAST [PRESENT] FUTURE (P. 19–71)

Sustainable Migration Haunting European Law – Alezini Loxa / Faculty of Law

1 Maarten den Heijer, Jorrit Riijpma, and Thomas Spijkerboer, "Coercion, Prohibition, and Great Expectations: The Continuing Failure of the Common European Asylum System," Comnon Market Law Review 53 (2016): 607–42; Alezini Loxa, "An EU Sustainable Migration: Institutional Discourse and Migration Politics," JCMS: Journal of Common Market Studies 63, no. 1:143-59.

2 On proposed definitions, see Marta Bivand Erdal et al., "Defining Sustainable Migration," EMN Norway Occasional Papers (PRIO Paper, 2018); Alexander Betts and Paul Collier, "Sustainable Migration: A Framework for Responding to Movement from Poor to Rich Countries," EMN Norway Occasional Papers, 2018; For a critique of sustainable migration, see Elspeth Guild, "The UN Global Compact for Safe, Orderly and Regular Migration: To What Extent Are Human Rights and Sustainable Development Mutually Compatible in the Field of Migration?," International Journal of Law in Context 16, no. 3: 239–52; Loxa, "An EU Sustainable Migration."

3 Jacques Derrida, Spectres of Marx: The State of the Debt, the Work of Mourning and the New International (Hoboken: Routledge, 1994); Wendy Brown, Politics Out of History (Princeton: Princeton University Press, 2001), 144.

4 See Brown, Politics Out of History, 146.

5 Brown, 146.

6 Brown, 150.

7 Brown, 150.

8 Brown, 150.

9 Brown, 150.

10 For a detailed analysis see Alezini Loxa, Sustainability and EU Migration Law, Tracing the History of a Contemporary Concept, Accepted/In press, (Cambridge: Cambridge University Press, 2025).

11 Derrida, Spectres of Marx, xxviii; Brown, Politics Out of History, 147.

12 Brown, Politics Out of History, 147.

13 Brown, 151.

14 Derrida, Spectres of Marx, 32.

15 Gargi Bhattacharyya, Rethinking Racial Capitalism: Questions of Reproduction and Survival, Cultural Studies and Marxism (Lanham: Rowman & Littlefield Publishers, 2018), 123

Sustainable urbanism in glitch – Queering singular visions of sustainable urban development / Alva Zalar / Faculty of Engineering

1 Hilary Angelo & David Wachsmuth, ”Why does everyone think cities can save the planet?, Urban Studies 57, 11 (2020).

2 Pernilla Hagbert, Josefin Wangel & Loove Broms, ”Exploring the potential for just urban transformations in light of eco-modernist imaginaries of sutainability”, Urban Planning, (2020): 210.

3 Alva Zalar, Queer as a city: Unsettling coherence in ‘sustainable urban development’. Lund: Lund University, 2024: 48-50.

4 Guido Caniglia & Coleen Vogel, “On being oriented: Strengthening transgressive orientations in transdisciplinary sustainability research through queer theory”, GAIA – Ecological Perspectives for Science and Society, 32, 1 (2023): 167-171.

5 Image courtesy of Hyllie Centrum. https://www.flickr.com/people/hylliecentrum/

6 Hagbert, Wangel & Broms, 2020; Simon Elias Bibri & John Krogstie, “Smart eco-city strategies and solutions for sustainability: The cases of royal seaport, Stockholm, and Western Harbor, Malmö, Sweden”, Urban Science, 4, 11 (2020).

7 Karolina Isaksson & Satu Heikkinen, ”Sustainability transitions at the frontline: Lock-in and potential for change in the local planning area”, Sustainability, 10, 3 (2018).

8 Malmö stad. Översiktsplan för södra Hyllie: Fördjupning av Översiktsplan för Malmö. Malmö: Malmö stad, 2019.

9 Malmö stad, 2019.

10 Image courtesy of Hyllie Centrum. https://www.flickr.com/people/hylliecentrum/

11 Zalar, 2024: 158-159.

12 Zalar, 2024: 144-152.

13 Zalar, 2024: 220-221.

14 Hyllie Citysamverkan, Flickr. https://www.flickr.com/people/hylliecentrum/

15 Zalar, 2024: 213.

16 Cameron Butler, “Seeing the forest for all the fags”, Convergence Journal, 5 (2015). Available online: https://convergencejournal.ca/archives/757

Ancestral Dramaturgies – Iury Salustiano Trojaborg / Faculty of Fine and Performing Arts

1 A ancestralidade, em muitas culturas, é um conceito fundador, espargido e imbuído em todas as práticas sociais, exprimindo uma apreensão do sujeito e do cosmos, em todos os seus âmbitos, desde as relações familiares mais íntimas até as práticas e expressões sociais e comunais mais amplas e diversificadas. (...) De que forma os tempos e intervalos dos calendários também marcam e dilatam a concepção de um tempo que se curva para a frente e para trás, simultaneamente, sempre em processo de prospecção e de retrospecção, de rememoração e devir simultâneos? (Martins, 2021, 30)

2 Martins, Leda Maria. Performances do Tempo Espiralar, Poéticas do Corpo Tela. Rio de Janeiro: Cobogó, 2021.

3 O tempo pode ser ontologicamente experimentado como movimentos de reversibilidade, dilatação e contenção, não linearidade, descontinuidade, contração e descontração, simultaneidade das instâncias presente, passado e futuro, como experiências ontológica e cosmológica. (Martins, 2021, 23)

4 Assim podemos dizer que nossa experiencia do presente depende de nosso conhecimento do passado. (Martins, 2021, 40)

5 Bhatia, Sunil. Narrative Inquiry as Cultural Psychology: Meaning-making in a Contested Global World, in Narrative Inquiry, Volume 21, Issue 2, p.345-352, 201, 348.

6 Fleishman, Mark. The Difference of Performance as Research, in: Theatre Research International, 37(1), pp. 28–37 doi: 10.1017/S0307883311000745, 2012.

7 Schechner, Richard. Between Theater And Anthropology. Philadelphia: University of Pennsylvania Press, 1985.

8 https://sdgs.un.org/goals.

'Sustainable Development' – Sidelining supplier countries' uneven and difficult experiences of structural transformation? / Linn Ternsjö / Lund University School of Economics and Management

1 Andrew L. Fanning et al., "The Social Shortfall and Ecological Overshoot of Nations," Nature Sustainability 5, no. 1 (2022): 26–36.

2 Kate Raworth, "Doing the Doughnut at the G20?," Exploring Doughnut Economics (blog), December 1, 2018, https://www.kateraworth.com/2018/12/01/doing-the-doughnut-at-the-g20/ (accessed February 2, 2025).

3 Melissa Leach et al., "Post-Pandemic Transformations: How and Why COVID-19 Requires Us to Rethink Development," World Development 138 (2021): 105233.

4 Jörg Wiegratz et al., "Common Challenges for All? A Critical Engagement with the Emerging Vision for Post-Pandemic

Development Studies," Development and change 54, no. 5 (2023): 921-953 British Behuria, "Is the Study of Development Humiliating or Emancipatory? The Case Against Universalising 'Development,'" The European Journal of Development Research, (2025): 344-355.

5 Rebecca Prentice and Mahmudul H. Sumon, "Social Protection as Technocratic Fix? Labor Precarity and Crises of Capitalism after Bangladesh's Rana Plaza Collapse," Journal of Labor and Society (2023): 1-25.

6 Verisk Maplecroft, "Worldwide Decline in Labour Rights Strikes at Heart of Global Supply Chains: Human Rights Outlook 2021," 2021, https://www.maplecroft.com/insights/analysis/worldwide-decline-in-labour-rights-strikes-at-heart-of-global-supply-chains/#report_form_container.

7 Ponte, Steven. Business Power & Sustainability in a World of Global Value Chains. London: Zed Books, 2019.

8 Sjamsu Rahardja and Vinaya Swaroop, "What Can Sub-Saharan Africa Learn from Mauritius's Successful Development?," World Bank Blogs (blog), March 22, 2024, https://blogs.worldbank.org/en/africacan/what-can-sub-saharan-africa-learn-from-mauritius-s-successful-afe-0324 (accessed February 2, 2025).

9 Government of Mauritius, 4-Year Plan for Social and Economic Development 1971-1975. General Analysis and Policies. Port Louis, 1971.

10 EDB, "Your Partner for Ethical and Sustainable Garmenting," Mauritius Expo, 2024, https://mauritiusexpo.com/exhibition (accessed February 2, 2025).

11 Catherine Hein, Multinational Enterprises and Employment in the Mauritian Export Processing Zone. Working Paper. Geneva: International Labour Organisation, 1988.

12 David Lincoln, "Labour Migration in the Global Division of Labour: Migrant Workers in Mauritius," International Migration 47, no. 4 (2009): 129–56.

13 Uma Kothari, "Geographies and Histories of Unfreedom: Indentured Labourers and Contract Workers in Mauritius," Journal of Development Studies 49, no. 8 (2013):

14 Linn Ternsjö, Garment Workers and the Labour Issue in Development: The Case of Mauritius. Lund: Lund University, 2025.

15 Transparentem, "'I Came Here with so Many Dreams' Labor Rights Abuses and the Need for Change in Mauritius' Apparel Factories" (Transparentem, December 2023), https://transparentem.org/report/mauritius-disclosure/

16 Ternsjö, 2025.

Organising money – Acting in the present, to influence our future / Juan Ocampo / Lund University School of Economics and Management

1 Kennedy, Margrit. People money. Triarchy Press, 2012.

2 Freire, Paulo. 1970. Pedagogy of the Oppressed. New York: Bloomsbury Academic.

3 Lietaer, Bernard, and Jacqui Dunne. Rethinking money: How new currencies turn scarcity into prosperity. Berrett-Koehler Publishers, 2013.

4 Barinaga, Ester, and María José Zapata Campos. "Tinkering with malleable grassroots infrastructures: Kenyan local currencies in informal settlements." Urban Geography 45, no. 5 (2024): 798-817; Ocampo, Juan. "Organizing Money: The process of implementing a complementary currency in a context of scarcity." PhD diss., Lund University, 2024.

5 Hart, Keith. "Heads or tails? Two sides of the coin." Man (1986): 637-656.

6 Maurer, Bill. How would you like to pay?: how technology is changing the future of money. Duke University Press, 2015.; Barinaga Martín, Ester. 2024. Remaking Money for a Sustainable Future. Bristol, UK: Bristol University Press. https://doi.org/10.56687/9781529225402.; Ocampo, Juan. "Organizing Money: The process of implementing a complementary currency in a context of scarcity." PhD diss., Lund University, 2024.

7 Ocampo, 2024.

8 Ocampo, 2024.

Weaving time through relation-specific performance / Steinunn Hildigunnur Knúts Önnudóttir / Faculty of Fine and Performing Arts

1 Knúts-Önnudóttir, Steinunn. “STRINGS”, Research Catalogue, 2024. https://doi.org/10.22501/rc.1845560.

2 Knúts-Önnudóttir, Steinunn. “How Little Is Enough? Porous & Embracing Dramaturgy for Transformative Encounters.” Journal of Embodied Research 5, no. 1 (2022): 1 (23:40). https://doi.org/10.16995/jer.8546.

3 Knúts-Önnudóttir, Steinunn. “Letter Five: Findings. Now Show.” Research Catalogue, 2024. https://doi.org/10.22501/rc.1301252.

02: PROBLEM-SOLVING / CRITIQUE (P. 73–103)

Cattle ranching as driver of deforestation in the Colombian Amazon Foothills / Jesica López / Faculty of Science

1 G. R. van der Werf, D. C. Morton, R. S. DeFries, J. G. J. Olivier, P. S. Kasibhatla, R. B. Jackson, G. J. Collatz and J. T. Randerson. "CO2 emissions from forest loss". Nature geoscience, vol 2. (2009). https://www.researchgate.net/publication/39036776_CO2_emissions_from_forests

2 Davis, C. and Petersen, R. Tools for Monitoring Global Deforestation, World Resources Institute, Washington, DC, USA. Elsevier. 2018.

3 World Wildlife Fund (WWF) 2018. "Living Forest Report". Ch. 5. https://c402277.ssl.cf1.rackcdn.com/publications/793/files/original/Report.pdf?1430147305 (accessed August 12, 2020).

4 Hettler, B., A. Thieme, & M. Finer. "Auge de Deforestación en la Amazonía Colombiana: MAAP: nr. 97". 2017-2018.

5 McAlpine, A., P.M. Etter, L. Seabrook, W.F. Laurance, "Increasing world consumption of beef as a driver of regional and global change: A call for policy action based on evidence from Queensland (Australia), Colombia and Brazil", Global Environmental Change, Volume 19, 1 (2009): 21-33. https://www.sciencedirect.com/science/article/pii/S0959378008000976

6 Departamento Nacional de Planeación de Colombia (DNP), "Crecimiento verde. Bioeconomía" 2018, https://www.dnp.gov.co/Crecimiento-Verde/Ejes-estrategicos/Paginas/Bioeconomía.aspx. (accessed March 16, 2021).

Problems to solve in wastewater treatment and reuse / Maria Takman / Faculty of Engineering

1 Directive (EU) 2024/3019 of the European Parliament and of the council of 27 November 2024 concerning urban wastewater treatment (recast).

2 Swedish Water and Wastewater Association, "PFAS – the poison on everyone's lips," Report R2022-01. Svenskt Vatten AB (2022).

3 Joe Williams, "Desalination in the 21st Century: A Critical Review of Trends and Debates," Water Alternatives 15 (2022).

4 Jorge Alejandro Silva, "Water Supply and Wastewater Treatment and Reuse in Future Cities: A Systematic Literature Review," Water (Switzerland) 15 (2023).

Sustainability as a Species Relational Issue – Vegan Animal Rights Activism in Denmark / Naja Yndal-Olsen / Faculty of Social Sciences

1 Intergovernmental Panel on Climate Change (IPCC). (2023). "IPCC AR6 synthesis report", https://www.ipcc.ch/report/sixth-assessment-report-cycle/(accessed January 27, 2025)
Machovina, B., Feeley, K. J., & Ripple, W. J., "Biodiversity conservation: The key is reducing meat consumption", Science of The Total Environment 536 (2015): 419–431. 2015 https://doi.org/10.1016/j.scitotenv.2015.07.022
Ripple, W. J., Smith, P., Haberl, H., Montzka, S. A., McAlpine, C., & Boucher, D. H., "Ruminants, climate change and climate policy", Nature Climate Change 4, no. 1 (2014): 2–5. https://doi.org/10.1038/nclimate2081

2 Cudworth, E, "Climate Change, Industrial Animal Agriculture and Complex Inequalities", The International Journal of Science in Society 2, no. 3 (2011): 323-334. Weis, T. The Ecological Hoofprint: The Global Burden of Industrial Livestock. Zed Books, 2013.

3 Palumbo, L., Corrado, A., & Triandafyllidou, A. "Migrant labour in the agri-food system in Europe: Unpacking the social and legal factors of exploitation", European Journal of Migration and Law 24, no. 2 (2022): 179–196. https://doi.org/10.1163/15718166-12340123

4 Lamont, M., & Molnár, V., "The study of boundaries in the social sciences", Annual Review of Sociology 28, no. 1 (2002): 167–195. https://doi.org/10.1146/annurev.soc.28.110601.141107

5 Cherry, E., "Shifting symbolic boundaries: Cultural strategies of the animal rights movement", Sociological Forum 25, no. 3 (2010): 450–475. https://doi.org/10.1111/j.1573-7861.2010.01191.

6 Zerubavel, E. Hidden in plain sight: The social structure of irrelevance. Oxford University Press, 2015.
Clark, J. L., "Attentional deviance", *Environmental Humanities 12*, no. 2 (2020): 492–495. https://doi.org/10.1215/22011919-8623241

7 Zerubavel, E., Hidden in plain sight: The social structure of irrelevance. Oxford University Press, 2015: 60

8 Boscardin, L. Sustainable exploitation: The political ecology of the Livestock Revolution (Doctoral dissertation). University of Basel, 2017. https://edoc.unibas.ch/72281/

The problem with the solution / Phil Justice Flores / Lund University School of Economics and Management

1 Susan Shaheen, Adam Cohen, and Jacquelyn Broader, "What's the 'Big' Deal with Shared Micromobility? Evolution, Curb Policy, and Potential Developments in North America," Built Environment 47, no. 4 (December 1, 2021): 499–514, https://doi.org/10.2148/benv.47.4.499.\\uc0\\u8220{}What\\uc0\\u8217{}s the \\uc0\\u8216{}Big\\uc0\\u8217{} Deal with Shared Micromobility? Evolution, Curb Policy, and Potential Developments in North America,\\uc0\\u8221{} {\\i{}Built Environment} 47, no. 4 (December 1, 2021

03: LOCAL / GLOBAL (P. 103–149)

Living peacefully with climate change – Care-based knowledge for locally tackling global challenges / Christie Nicoson / Faculty of Social Sciences

1 Tronto, Joan. Moral Boundaries: A Political Argument for an Ethic of Care. London and New York: Routledge, 1993: 103.

2 Nicoson, Christie, "Climate Transformation Through Feminist Ethics of Care," Environmental Science & Policy 155 (2024): 103727.

3 Nicoson, Christie, "Imagining peace and enacting utopias in Puerto Rico," Peacebuilding (2024): 1-18.

Sustainability in Hindsight – The balance between local and global dimensions in HIV/AIDS response / Ilili Jemal Abdulah / Faculty of Medicine

1 UNAIDS. Undetectable = untransmittable — public health and HIV viral load suppression. 2018.

2 UNAIDS. Global HIV & AIDS statistics "Fact Sheet." UNAIDS, https://www.unaids.org/en/resources/fact-sheet. (Accessed Feb 14, 2025).

3 World Health Organization. HIV statistics, globally and by WHO region, UNAIDS/WHO estimates, 2024

4 The Guardian. "USAID Freeze Hits HIV/AIDS Care in Zimbabwe." The Guardian, February 14, 2025, https://www.theguardian.com/global-development/2025/feb/14/usaid-freeze-hits-hiv-aids-care-in-zimbabwe (Accessed Feb 14, 2025).

5 UNAIDS. "A crisis unfolding: hard-won progress in Ethiopia's HIV response at risk." UNAIDS, February 13, 2025, https://www.unaids.org/en/resources/presscentre/featurestories/2025/february/20250213_ethiopia (Accessed Feb 14, 2025).

6 Hahn BH, Shaw GM, De KM, Cock, Sharp PM. AIDS as a Zoonosis: Scientific and Public Health Implications. Science. 2000 Jan 28;287(5453):607–14.

7 The Joint United Nations program on HIV/AIDS (UNAIDS). Global HIV & AIDS statistics — Fact sheet. 2022.

Sustainability in music education – A call for action stuck between global policies and local organizational hindrances / Lina Van Dooren / Faculty of Fine and Performing Arts

1 Bates, Vincent C. 2024. "Sustainable Futures and School Music." In The Sage Handbook of School Music Education, edited by José Luis Aróstegui, Catharina Christophersen, Jeananne Nichols, and Koji Matsunobu, 52–66. London: Sage.

2 Barcellos, Luiz Claudio, and Rebecca Wade-Chung. 2022. "#SaveTheAmazon: Promoting Global Competence and Making Bridges in the Middle School Music Classroom." Journal of Popular Music Education 6 (3): 403–21. https://doi.org/10.1386/jpme_00099_1.

3 Ojala, Maria. 2013. "Emotional Awareness: On the Importance of Including Emotional Aspects in Education for Sustainable Development (ESD)." Journal of Education for Sustainable Development 7 (2): 167–82. https://doi.org/10.1177/0973408214526488.

4 Shevock, Daniel J. 2024. "Place-Conscious: The Social and Ecological in School Music Education." In The Sage Handbook of School Music Education, edited by José Luis Aróstegui, Catharina Christophersen, Jeananne Nichols, and Koji Matsunobu, 67–77. London: Sage.

5 Breiting, Soren, and Per Wickenberg. 2010. "The Progressive Development of Environmental Education in Sweden and Denmark." Environmental Education Research 16 (1): 9–37. https://doi.org/10.1080/13504620903533221.

6 Jickling, Bob, and Arjen E.J. Wals. 2008. "Globalization and Environmental Education: Looking beyond Sustainable Development." Journal of Curriculum Studies 40 (1): 1–21. https://doi.org/10.1080/00220270701684667.

7 Skolverket. 2022. "Curriculum for Compulsory School, Preschool Class and School-Age Educare: Lgr22." https://www.skolverket.se/getFile?file=13128.

Sustainability and the Vulnerability of Young Migrants / Tanya Andersson Nystedt / Faculty of Medicine

1 McAuliffe, M. and L.A. Oucho (eds.), 2024. World Migration Report 2024. International Organization for Migration (IOM), Geneva.

04: HARMONY / CONFLICT (P. 151–203)

Replication and generalization for a sustainable science / Alexander Tagesson / Joint Faculties of Humanities and Theology

1 Tagesson, Alexander., Wallin, Annika., Pärnamets, Philip., "Failing Motivated Empathy Interventions", (under review Nature Communications).

2 Hanson, Mark A., Pablo Gómez Barreiro, Paolo Crosetto and Dan Brockington, "The strain on scientific publishing", Quantitative Science Studies 5 (2023): 823-843.

3 Open Science Collaboration,"Estimating the reproducibility of psychological science", Science 349, (2015).

4 Artner, R., Verliefde, T., Steegen, S., Gomes, S., Traets, F., Tuerlinckx, F., & Vanpaemel, W, "The reproducibility of statistical results in psychological research: An investigation using unpublished raw data", Psychological Methods, 26(5), 527–546, 2021.

5 Prinz, F., Schlange, T. & Asadullah, K, "Believe it or not: how much can we rely on published data on potential drug targets?", Nature Review Drug Discovery 10, 712 (2011).

6 Begley, C., Ellis, L, "Raise standards for preclinical cancer research", Nature 483, 531–533 (2012).

7 Thornton, Stephen, "Karl Popper", The Stanford Encyclopedia of Philosophy (Winter 2023 Edition), Edward N. Zalta & Uri Nodelman (eds.), Karl Popper (Stanford Encyclopedia of Philosophy), (accessed 25.02.14).

Exploring the Harmony Between Sustainable Eating and Health / Anna Stubbendorff / Faculty of Medicine

1. Crippa, M., et al., Food systems are responsible for a third of global anthropogenic GHG emissions. Nature Food, 2021. 2(3): p. 198-209.

2. IPCC (The Intergovernmental Panel on Climate Change), Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. 2022: Cambridge, UK and New York, NY, USA.

3. Willett, W., et al., Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. Lancet, 2019.

4. Scarborough, P., et al., Greenhouse gas emissions, land use, water use, water pollution and biodiversity impact of vegans, vegetarians, fish-eaters and meat-eaters in the UK. Nature Food, 2023.

5. World Health Organization (WHO), Compendium of WHO and other UN guidance in health and environment, 2024 update. 2024.

6. World Health Organization (WHO). Obesity and overweight. 2024; Available from: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight.

7. World Health Organization (WHO). Malnutrition. 2024; Available from: https://www.who.int/news-room/fact-sheets/detail/malnutrition.

8. World Health Organization (WHO). Noncommunicable diseases. 2024; Available from: https://www.who.int/health-topics/noncommunicable-diseases.

9. Afshin, A., et al., Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis forthe Global Burden of Disease Study 2017. The Lancet, 2019. 393(10184): p. 1958-1972.

10. Stubbendorff, A., et al., Development of an EAT-Lancet index and its relation to mortality in a Swedish population. The American Journal of Clinical Nutrition, 2021.

11. Zhang, S., et al., Adherence to the EAT-Lancet diet, genetic susceptibility, and risk of type 2 diabetes in Swedish adults. Metabolism - Clinical and Experimental, 2023.

12. Zhang, S., et al., Adherence to the EAT-Lancet diet and risk of coronary events in the Malmo Diet and Cancer cohort study. The American Journal of Clinical Nutrition, 2023.

13. Zhang, S., et al., The EAT-Lancet diet, genetic susceptibility and risk of atrial fibrillation in a population-based cohort. BMC Med, 2023. 21(1): p. 280.

14. Habumugisha, T., et al., The EAT-Lancet diet is associated with higher micronutrient intake: findings from a cross-sectional study of community-dwelling older adults in Gasabo district, City of Kigali, Rwanda. Unpublished manuscript, in preparation.

15. Stubbendorff, A., et al., Iron Insight: Exploring Dietary Patterns and Iron Deficiency Among Teenage Girls in Sweden. Submitted manuscript.

16. Stubbendorff, A., et al., Balancing environmental Sustainability and Nutrition: Dietary Climate Impact in Relation to Micronutrient Intake and Status in a Swedish Cohort. Submitted manuscript.

Sustainability with an engineering approach – A Reflective Exploration / Juan Manuel Bello Bermejo / Faculty of Engineering

1 World Commission on Environment and Development (WCED), Our Common Future, 1987

2 United Nations General Assembly, Transforming Our World: The 2030 Agenda for Sustainable Development, 2015

Fighting for sustainability within law's ontological ambivalence / Carlo Nicoli Aldini / Faculty of Social Sciences

1 See e.g., Scott Fulton, David Clarke, and Maria Amparo Alban, "Environmental Sustainability: Finding a Working Definition Comments," Environmental Law Reporter News & Analysis 47, no. 6 (2017): 10488–91; Julia E. Moore, Alekhya Mascarenhas, Julie Bain, and Sharon E. Straus, "Developing a Comprehensive Definition of Sustainability," Implementation Science 12, no. 1 (2017): 110, https://doi.org/10.1186/s13012-017-0637-1; Carlos Alberto Ruggerio, "Sustainability and Sustainable Development: A Review of Principles and Definitions," Science of The Total Environment 786 (September 2021): 147481, https://doi.org/10.1016/j.scitotenv.2021.147481; Peter Glavič and Rebeka Lukman, "Review of Sustainability Terms and Their Definitions," Journal of Cleaner Production 15, no. 18 (2007): 1875–85, https://doi.org/10.1016/j.jclepro.2006.12.006.

2 The concept of development itself is questionable (see e.g., Arturo Escobar, Encountering Development: The Making and Unmaking of the Third World. Princeton: Princeton University Press, 2012; Alberto Acosta, "Post-Extractivism: From Discourse to Practice—Reflections for Action," International Development Policy | Revue Internationale de Politique de Développement 9 (October 2017): 77–101, https://doi.org/10.4000/poldev.2356; Alberto Acosta and Mateo Martínez Abarca, "Buen Vivir: An Alternative Perspective from the Peoples of the Global South to the Crisis of Capitalist Modernity," in The Climate Crisis, ed. Vishwas Satgar, 131–47, South African and Global Democratic Eco-Socialist Alternatives. Wits University Press, 2018). However, critiquing this concept is beyond the scope of this short essay.

3 Gro Harlem Brundtland, Our Common Future: Report of the World Commission on Environment and Development (Geneva: United Nations, 1987), UN Doc. A/42/427.

4 Pierre Bourdieu. "The Force of Law: Toward a Sociology of the Juridical Field." The Hastings Law Journal 38 (1985).

5 Niklas Luhmann, Law as a Social System. Oxford: Oxford University Press, 2004.

6 See e.g., Valerio Gennaro, Stefano Cervellera, Carlo Cusatelli, Alessandro Miani, Francesco Pesce, Gianluigi De Gennaro, Alessandro Distante, Luigi Vimercati, Loreto Gesualdo, and Prisco Piscitelli, "Use of Official Municipal Demographics for the Estimation of Mortality in Cities Suffering from Heavy Environmental Pollution: Results of the First Study on All the Neighborhoods of Taranto from 2011 to 2020," Environmental Research 204 (March 2022): 112007, https://doi.org/10.1016/j.envres.2021.112007; Alessandro Marinaccio, Stefano Belli, Alessandra Binazzi, Alberto Scarselli, Stefania Massari, Antonella Bruni, Michele Conversano, et al., "Residential Proximity to Industrial Sites in the Area of Taranto (Southern Italy). A Case-Control Cancer Incidence Study," Annali Dell'Istituto Superiore Di Sanita 47, no. 2 (2011): 192–99, https://doi.org/10.4415/ANN_11_02_11; Annamaria Moschetti, Manuela Giangreco, Luca Ronfani, Stefano Cervellera, Maria Pia Ruffilli, Cosimo Nume, Egidio Barbi, and Alessia Giuseppina Servidio, "An Ecological Study Shows Increased Prevalence of Autism Spectrum Disorder in Children Living in a Heavily Polluted Area," Scientific Reports 14, no. 1 (2024): 17159, https://doi.org/10.1038/s41598-024-67980-0; Stefano Renzetti, Giuseppa Cagna, Stefano Calza, Michele Conversano, Chiara Fedrighi, Giovanni Forte, Augusto Giorgino, et al., "The Effects of the Exposure to Neurotoxic Elements on Italian Schoolchildren Behavior," Scientific Reports 11, no. 1 (2021): 9898, https://doi.org/10.1038/s41598-021-88969-z; SENTIERI, SENTIERI - Studio Epidemiologico Nazionale Dei Territori e Degli Insediamenti Esposti a Rischio Da Inquinamento. Sesto Rapporto (2023), https://epiprev.it/pubblicazioni/sentieri-studio-epidemiologico-nazionale-dei-territori-e-degli-insediamenti-esposti-a-rischio-da-inquinamento-sesto-rapporto; Maria Angela Vigotti, Francesca Mataloni, Antonella Bruni, Caterina Minniti, and Emilio A. L. Gianicolo, "Mortality Analysis by Neighbourhood in a City with High Levels of Industrial Air Pollution," International Journal of Public Health 59, no. 4 (2014): 645–53, https://doi.org/10.1007/s00038-014-0554-x; Luigi Vimercati, Antonio Baldassarre, Maria F. Gatti, Tommaso Gagliardi, Maria Serinelli, Luigi De Maria, Antonio Caputi, et al., "Non-Occupational Exposure to Heavy Metals of the Residents of an Industrial Area and Biomonitoring," Environmental Monitoring and Assessment 188, no. 12 (2016): 673, https://doi.org/10.1007/s10661-016-5693-5.

7 see e.g., Santina Giandomenico, Nicola Cardellicchio, Lucia Spada, Cristina Annicchiarico, and Antonella Di Leo, "Metals and PCB Levels in Some Edible Marine Organisms from the Ionian Sea: Dietary Intake Evaluation and Risk for Consumers," Environmental Science and Pollution Research 23, no. 13 (2016): 12596–612, https://doi.org/10.1007/s11356-015-5280-2.

8 Giuliana Bianco, Rosalia Zianni, Giuseppe Anzillotta, Achille Palma, Vincenzo Vitacco, Laura Scrano, and Tommaso R. I. Cataldi, "Dibenzo-p-Dioxins and Dibenzofurans in Human Breast Milk Collected in the Area of Taranto (Southern Italy): First Case Study," Analytical and Bioanalytical Chemistry 405, no. 7 (2013): 2405–10, https://doi.org/10.1007/

s00216-013-6706-7; Roberto G. Lucchini, Stefano Guazzetti, Stefano Renzetti, Michele Conversano, Giuseppa Cagna, Chiara Fedrighi, Augusto Giorgino, et al., "Neurocognitive Impact of Metal Exposure and Social Stressors among Schoolchildren in Taranto, Italy," Environmental Health 18, no. 1 (2019): 67, https://doi.org/10.1186/s12940-019-0505-3; Annamaria Moschetti, Manuela Giangreco, Luca Ronfani, Stefano Cervellera, Maria Pia Ruffilli, Cosimo Nume, Egidio Barbi, and Alessia Giuseppina Servidio, "An Ecological Study Shows Increased Prevalence of Autism Spectrum Disorder in Children Living in a Heavily Polluted Area," Scientific Reports 14, no. 1 (2024): 17159, https://doi.org/10.1038/s41598-024-67980-0; Stefano Renzetti, Giuseppa Cagna, Stefano Calza, Michele Conversano, Chiara Fedrighi, Giovanni Forte, Augusto Giorgino, et al., "The Effects of the Exposure to Neurotoxic Elements on Italian Schoolchildren Behavior," Scientific Reports 11, no. 1 (2021): 9898, https://doi.org/10.1038/s41598-021-88969-z.

9 Bourdieu, The Force of Law, 38

10 Sally Engle Merry, Getting Justice and Getting Even: Legal Consciousness among Working-Class Americans Chicago: University of Chicago Press, 1990.

11 Austin Sarat, "'.. The Law Is All Over': Power, Resistance and the Legal Consciousness of the Welfare Poor," Yale Journal of Law & the Humanities 2, no. 2 (1990), https://digitalcommons.law.yale.edu/yjlh/vol2/iss2/6.

12 Susan S. Silbey, "After Legal Consciousness," Annual Review of Law and Social Science 1 (2005): 323–68.

The conflictual relation of sustainable development and human rights / Emelie Lantz / Joint Faculties of Humanities and Theology

1 Transforming our world: The 2030 Agenda for Sustainable Development, A/RES/70/1, 2015, §19.

2 Morten Kjaerum, Martha Frances David, Gabriella Fredriksson and Isis Sartori Reis. "Human Rights Cities and The SDGs", Raoul Wallenberg Institute of Human Rights, (2018), Lund.

3 The city of Lund. "Lunds kommuns program för social hållbarhet 2020-2030", policy, Lund.

4 Grigolo, Michele. The human rights city, New York, San Francisco, Barcelona, (Routhledge, New York, 2019).

5 Sakiko Fukuda-Parr and Desmond McNeill. "Knowledge and Politics in Setting and Measuring the SDGs: Introduction to Special Issue", Global Policy 10:S1, (2019): 5– 15.

6 Frank Biermann, Norichika Kanie, and Rakhyun E. Kim. "Global Governance by Goal-Setting: The Novel Approach of the UN Sustainable Development Goals", Current Opinion in Environmental Sustainability, (06/01/June 2017): 26-31.

7 Kate Donald, and Sally-Anne Way. “Accountability for the Sustainable Development Goals: A Lost Opportunity?” Ethics and International Affairs 30: 2, (2016): 201-213.

8 Woods, Kerri. Human Rights, Palgrave Macmillan, (2014): 162-181.

9 Georina Rannard and Maia Davies ”Oil and gas are a ‘gift of God’, says COP29 host” BBC News, (November 12 2024) https://www.bbc.com/news/articles/cpqd1rzw9r4o (accessed February 13 2025).

Healthy planet, healthy people? / Linn Hemberg / Faculty of Medicine

1 HCWH (Healthcare without harm) and Arup. Health care’s climate footprint report. 2019; Available from:

https://noharm-global.org/documents/health-care-climate-footprint-report

2 Williams J.T.W. et al. Interventions to reduce low-value care in intensive care settings: a scoping review of impacts on health, resource use, costs, and the environment. Intensive Care Medicine. 2024. 50(12): pp. 2019-2030.

Sustainable Development – A Tragedy In Three Acts / Mahesh Menon / Faculty of Law

* This piece was written with the aid of ChatGPT. A script along with dialogues was written out in everyday language and uploaded to ChatGPT, with the prompt to re-write the dialogues, mirroring the style of specific pieces from Shakespeare. I chose a dramatic form because I wanted to try something different from the usual academic writing and convey to the reader a dramatic element that unfolds in courts. I chose Shakespeare because the sense of drama is immediately evoked in the reader’s mind when using Shakespearean style. This helps create a dramatic effect without laboring extensively for it. Act I is inspired by Act 1 of The Tempest, which features a storm that sets the stage for the ensuing chaos, symbolising conflict and discord. Act II draws from Act 1, Scene 2 of Julius Caesar, where the public’s reaction to political events and the persuasive rhetoric of characters set the stage for the unfolding drama. Act III is based on Act 5, Scene 1 of Macbeth, which explores the consequences of ambition and moral reckoning. The final monologue is inspired by the famous “To be, or not to be” soliloquy from Hamlet, delving into existential questions.

This dramatic piece connects to my doctoral research, which examines how the principle of sustainable development has influenced Indian Supreme Court decisions on environmental cases, analysing its distributional consequences - who bears the costs and who reaps the benefits when courts invoke this principle to balance environmental protection against economic interests. I used AI because I am fascinated by this new tool and keep thinking of ways to use it creatively - this was one such experiment. I am not quite sure at the moment about the risks and ethical considerations involved in using it for academic writing, so I have been reluctant to use it in other academic contexts. This creative piece seemed like an opportunity to explore its possibilities.

THROUGH THE KALEIDOSCOPE OF SUSTAINABILITY / 25 ESSAYS

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THIS BOOK IS A CELEBRATION of the community that is the Agenda 2030 Graduate School at Lund University. It is also a testament to the complexity and diversity of scholarship on sustainable development. Not only is sustainable development applied to an ever-increasing list of issue areas. It is also done in increasingly diverse ways, using a broad range of approaches across the natural sciences, social sciences, humanities and the arts. The result is a series of tensions that structure this book: Past [Present] Future, Problem Solving and Critique, Local and Global and Harmony and Conflict.

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