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From countercultural ecovillages to mainstream green neighbourhoods – a view on current trends in Denmark

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This paper describes how the ecovillage model for sustainability is currently spreading in Denmark through two different avenues. The first avenue is the creation of new eco-communities inspired by the ecovillage movement but created through top-down municipal support or from the side by the involvement of professional community builders. The second avenue is the spread of some aspects of the ecovillage model to mainstream housing neighbourhoods through the green neighbourhood movement, when neighbours meet, discuss what kind of sustainable interests they share, and act together to live more sustainably. Although eco-communities and green neighbourhoods will probably achieve less impressive carbon footprint reductions than ecovillages, they are exploring interesting avenues through which the spread of the ecovillage model, which is slow, costly, and exclusive, can be speed up and can trigger a mass movement that has the potential of bringing widespread changes.

The world is facing an acute climate and biodiversity crisis that requires not just a change in energy supply and infrastructure, but also widespread behavioural change¹. Different studies have shown that members of ecovillages have a lower than average carbon footprint. Vita et al. show, for example, that members of green grassroots initiatives in Italy, Germany, Romania, and Spain have a carbon footprint 16% lower than the average carbon footprint in the same geographical regions². A survey comparing 1018 representative Danes with 255 members of 16 green communities in Denmark shows that the carbon footprint of members of green communities is 28% below the national average per capita. Split into sub-categories, the carbon footprint of members of green communities is 38% below the national average for energy, 27% for transport, 44% for food, and 14% for miscellaneous consumption³. Another study shows that the carbon footprint in a Danish ecovillage is 60% below the national average⁴.

A review of 16 different studies comparing the carbon footprint of intentional communities worldwide with national averages provides strong support for claims of greater environmental sustainability within these communities⁵. Similar studies have been conducted in different contexts, and they all find that ecovillagers live more sustainably and/or have a lower carbon footprint than average^{6–9}. Thus, collective action in green communities has the real potential to promote environmental behaviour^{10–13}.

Several reasons explain this lower carbon footprint. First, ecovillages are characterised by a strong collective identity and a strong focus on sustainability. Members inspire one another to change their lifestyles and support each other along the green transition path. Second, ecovillagers possess specialised knowledge built on practical experience, and there is a

high level of knowledge exchange when neighbours meet informally in a courtyard or during communal meals. Third, ecovillages build physical infrastructures that reduce consumption or make them more sustainable and develop social infrastructures to manage the physical infrastructure and organise collective activities.

Fourth, the heavy workload required of ecovillage life means that ecovillagers often have part-time salaried jobs. They earn less and buy less than average citizens but make it up by producing their own food and housing and by sharing more. Debt-free living, wherever it is practised, also reduces the need to work full-time to repay mortgages. All these aspects of ecovillage life explain why acting collectively instead of individually can account for the significantly lower carbon footprints of ecovillagers as compared to average citizens^{4,14}.

But can the ecovillage model and its merits be scaled up and scaled out? This paper discusses two avenues through which the ecovillage model can spread. The first is through the creation of new ecovillages that are characterised by their holistic ideology and created from the bottom-up, or the newer version, eco-communities (*bæredygtigt bofællesskab* in Danish), which take a more pragmatic and mainstream approach to sustainability and are usually facilitated from the top or from the side. However, this avenue has its drawbacks: while ecovillages create more sustainable practices that have proven to work might lead to the deepest societal changes, they can be both slow, exclusive, and costly in both time and money.

The second avenue is the creation of green neighbourhoods (groups of neighbours who act collectively for sustainable transition), particularly in urban areas. The impact of this type of green initiative on environmental

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behaviour is more limited, but the model can spread much faster than establishing new ecovillages and can include more diverse segments of the population.

This article takes as its point of departure the increasing number of studies showing that collective action in green communities indeed have a great impact on environmental behaviour and asks how green communities can be scaled out and scaled up. However, despite a growing body of literature focusing on the positive effects of participating in a green community, few studies have looked at how this model can be spread.

Diffusionism is one of the classic theories that has been used to explain the spread of cultural traits and technologies by comparing them to organisms that have the capacity to adapt to different environments¹⁵. The question of adaptability resonates here with social Darwinism, which explains social diffusion by a mechanism of selection of advantageous traits¹⁶. However, it is difficult for this approach to account for the spread of ecovillages, which has faced ups and downs since the 1970s, and for the emergence of green neighbourhoods, which, although inspired by ecovillages, are quite different from them. More recent versions of diffusionism, or neo-diffusionism, focus on the globalisation of some cultural traits, and propose to move away from cultural diffusion and focus instead on cultural appropriation¹⁵. Again, this approach fails to account for the slow spread of ecovillages in the past decades and the sudden spread of green neighbourhoods in the past 3 years.

The Rhizome Theory developed by Deleuze and Guattari¹⁷ proposes an entirely different way of looking at diffusion, in which there is no clear origin and end, no centre and periphery, no linear process, and no hierarchy. A rhizomatic process is constantly in the making because it fills the space that it can fill, which depends on ever-changing contexts.

This theory is more relevant to modelling the diffusion of ecovillages or green neighbourhoods since it can be impossible to trace back the origin of a community through a causal chain. But the Rhizome Theory fails to explain how ecovillages have inspired green neighbourhoods, and it fails to account for the sudden spread of green neighbourhoods.

To understand why the number of green neighbourhoods is booming in Denmark only 3 years after the first one was created, one could use the Tipping Points Theory, which explains sudden change by the fact that a specific phenomenon has reached a critical point of dissemination¹⁸. The tipping point is the moment when an idea, behaviour or cultural trait crosses a threshold and spreads everywhere. The emergence and the rapid spread of green neighbourhoods might be conceptualised as the result of reaching a critical point of dissemination, for example, by the media coverage of the climate crisis, by the accumulation of experience around sustainable activities in eco-communities and specialised associations, or by being able to rely on a critical mass of fiery souls able to collaborate to organise collective action.

We now discuss the two avenues through which the collective sustainable action displayed in ecovillages has spread, first, through a slow rhizomatic diffusion of new ecovillages and a faster spread of eco-communities, and second, through a sudden and rapid diffusion of new green neighbourhoods.

Results

The co-housing movement in Denmark was born in the 1970s out of opposition to the usual forms of housing. In the 1990s, the movement developed further through the initiation of ecovillages with an explicit focus on sustainable living. Today, while approximately 35 communities define themselves as ecovillages in Denmark, of which all are rural, only a few new ecovillages (such as Permatopia, Frikøbing, Sjællandsk Muld) have been created in the past 10 years.

Spreading the ecovillage model to eco-communities

A first avenue to spread the ecovillage model is through the creation of new eco-communities, which is faster and easier than establishing new ecovillages. In the past 8 years, around 25 new eco-communities have been created, often at the initiative of new actors such as professional developers

and/or with the encouragement of municipalities. One difference between ecovillages and eco-communities is that the former are usually created from the bottom-up (by self-initiated grassroots engagement), while the latter are increasingly created from the top-down (by municipal intervention) or from the side (when a developer takes the initiative, perhaps together with a group of future inhabitants and/or in close cooperation with a municipality)¹⁹.

When a community is created from the bottom up, as is the case of most ecovillages (such as Dyssekilde, Hallingelille, Munksøgård), they usually take between 5 and 10 years to establish, because the founders of a new ecovillage must master a wide knowledge of technical and building issues and legal, financial, and insurance-related constraints, and about how municipal administration and bureaucracy works. As a group, they experience a steep learning curve: digesting this knowledge and using it constructively to accomplish the project takes time and energy. Getting building permits and building houses is not the only challenge they meet. Building the social community from scratch can be equally difficult and riddled with conflicts in the early stages until a consensus is reached on fundamental norms and values. A common observation in the Danish ecovillage movement is that only 2 out of 10 projects are realised. The rest fail, often due to unrealistic ambitions and interpersonal conflicts, more than legal or financial obstacles.

Another scenario is when municipalities decide to encourage the creation of more eco-communities from the top-down to attract highly educated citizens usually moving away from cities who can create different businesses or collective activities locally. These citizens also come with children who can save local schools from being closed. Because these municipalities realise that eco-communities can provide an interesting diversity in housing options and added value to local society, they are actively trying to attract newcomers by making it easier for them to establish new eco-communities within municipal boundaries. Municipalities typically do this by showing flexibility in local planning by promoting sustainable building criteria and a focus on community, reserving land specifically for the establishment of eco-communities, and by providing administrative support in navigating the municipal bureaucracy. Some hold citizen meetings that gather interested people, thus enabling these communities to take form.

One good example is the municipality of Roskilde, which has established a secretariat with two employees to assist new communities. These staff members provide a step-by-step plan for community establishment and present on their webpage twenty-three communities: three of these can be characterised as ecovillages and ten are located next to the bottom-up ecovillage of Munksøgård, which has become a popular reference point as a model ecovillage in Denmark. The secretariat attracts the interest of citizens and developers, but it also makes presentations about the active municipal approach towards community establishment at conferences and in other municipalities. Next to the map on their website with the location of the many different communities, are words that express the municipality's proactive approach: 'We dream of even more communities, and we have the space'.

One challenge of the municipality-led approach is that staff in the municipalities do not always understand the needs of potential future residents. For example, many citizens prefer to be located near a local train station rather than in the middle of nowhere (as is often suggested) to avoid travelling too much by car. Some municipalities bid out their land without paying special attention to grassroots groups who are at risk losing the bid to experienced and financially strong developers. They also sometimes underestimate the effort needed to create a community. Providing encouragement, the right framework, and motivation is not always a guarantee that a concrete community will be created.

A third scenario is when the new profession of diverse eco-community builders facilitates the process from the side by contacting municipalities and sometimes facilitating citizen groups to enable the building of more eco-communities.

The commercial market for such eco-communities is blossoming today: new actors are engaging and marketing a lifestyle that has community

and climate-friendly practices at its core²⁰. These new actors have emerged out of a recognition of the growing demand for living sustainably in ecovillages, and recognition of the huge investment in time it takes to overcome bureaucratic barriers and acquire the specialised knowledge that these kinds of projects demand. Some of these professionals focus exclusively on the building challenges and deliver houses through the turn-key concept. Others recognize that building a community is at least as difficult as building houses and facilitate the process with mentors, or social hosts, to address the social side of community life^{21,22}. This is often needed to achieve the benefits of a community-led transition to a greener lifestyle and to ensure that people are satisfied with this new way of living, which for most people takes some adjustment. As such, a new profession of social community builders has been born.

The wave of new eco-communities in Denmark has blossomed in particular over the last 5 years. While only a handful of ecovillages have been established in the past 8 years, around 25 new eco-communities have been created in the same period. Today the number of eco-communities now outnumber the (approximately) 35 ecovillages in Denmark. A recent mapping of Danish co-housing projects shows that in the period 2015–2021, around 15–20 new co-housing community projects have been established annually in the past 5 years, while typically around 5–10 projects were built in the previous years²⁰. These data, however, do not distinguish between eco-communities and communities without a climate-friendly agenda and foundation, an area that is still under-researched.

Mapping of communities in Denmark further shows that newly established developer-led projects (facilitated from the side) in 2020 and 2021 represented around 30% of the co-housing market and that the share tends to grow when the number of new developer-led projects in the planning stages is added to the total²⁰.

In Denmark, older communities created from the bottom-up usually define themselves as ecovillages, while new communities created from the top-down or from the side usually are presented as eco-communities. One of the differences between these two models is that ecovillages tend to be found in rural areas and are more radical and ideological in their sustainable practices, in the sense that sustainability is a very explicit and central collective goal. Eco-communities, on their side, tend to be found in suburbs (although some are also found in dense urban settings), are more pragmatic in their sustainable practices, and do not always have sustainability as an explicit collective goal. In other words, residents of eco-communities are less willing to make radical changes to their mainstream lifestyle; in that they find satisfaction with a more easily attainable form of living a greener life. Both models can have strong community elements but differ on their sustainable ambitions and how these come into being, as a goal in itself (in ecovillages) or as an extra benefit or bonus (in eco-communities).

The two models (ecovillages and eco-communities) are not in opposition; they both contribute to sustainable living in communities. It is noteworthy that many of the social community-builders facilitating the creation of eco-communities from the side come, in fact, from ecovillages. Through their own personal experiences in building community, they have gained competences that are now recognized as professional. Some developers (e.g., eco-village.dk, Almenr and Bærebo) have employed people with such desirable competences, which adds an element of legitimacy to their projects. Some such ecovillagers (facilitating from the side) have realised the limits of their model and are developing and disseminating a more mainstream model of sustainable collective living through eco-communities.

Developing this new model has not been an easy task. Ecovillage values are not easily compatible with commercial interests and the employment periods of experienced community-builders seem to be short. Instead of being employed in professional community building enterprises, they offer themselves as private consultants on the webpages of the organisations for ecovillages and communities in Denmark (LØS and Bofællesskab.dk). Hence, both municipalities, self-grown groups and developers can find these community experts to assist on how to create thriving communities. Furthermore, a newly established national Advisory service for new communities under the National Housing and Planning Agency seeks to ease the

path and create an enabling environment for new communities. Such initiatives are concrete examples of how much Denmark's green community scene has changed and become more mainstream.

In conclusion, various new actors, such as Ecovillage.dk, Pension-Danmark, NREP, and Fabulas, are currently exploring how the increasing demand for a more sustainable community lifestyle can be met with a larger supply of eco-communities. Such communities use sustainability as a fundamental parameter. But while this is a good selling point, perhaps, for an affluent population of academics, sustainability is now presented in a more pragmatic approach, which makes room for a large variety of lifestyles.

The side developer and the top-down municipal approaches represent a major change compared to the traditional bottom-up process, which includes a shorter planning process and reduced risks of failure (as in not realizing the project) of the new eco-community, but also less involvement of the residents in the planning and design stage and a lower engagement in sustainable action²². This ecovillage model 2.0 (eco-communities facilitated by different sides) has the potential to grow much faster than the traditional bottom-up ecovillages; even the climate-friendly and experimental characteristics of the ecovillages being devalued during the mainstreaming process.

Spreading the ecovillage model to mainstream neighbourhoods

A second avenue through which collective action in green communities is spreading is through the establishment of green neighbourhoods (*Grønne Nabofællesskaber* in Danish).

A green neighbourhood is a community of neighbours who voluntarily decide to meet and to discuss how they can work together for an enhanced sustainable transition. So far, the movement has been driven by grassroots initiatives with little support from municipalities and it has spread rapidly to all corners of the country, despite a difficult beginning in the midst of the coronavirus pandemic.

One of the first green neighbourhoods in Denmark was initiated by Bent Mariager in 2019. When Bent tells his story, he usually mentions his two reasons for taking action. First, he felt that he could no longer sit by and do nothing in face of the acute climate and environmental crisis; he had to join forces with others. Second, Bent was a member of Omstilling Nu (Transition Now) an NGO working for green transition, which was a partner in the COMPASS research project led by the University of Copenhagen^{11,23}. When this research project showed that members of green communities such as ecovillages or organic food cooperatives had a carbon footprint that was 28% below the national average³, he became even more convinced that the way forward was to create new green communities where there was none.

Today, more than 230 green neighbourhoods exist all over Denmark, and the number keeps growing every week. Roughly $\frac{1}{4}$ of green neighbourhoods are found in small towns (less than 5000 inhabitants) in rural areas, $\frac{1}{4}$ are found in local neighbourhoods of larger towns, and $\frac{1}{2}$ are found at the municipal level covering both rural and urban areas.

The green neighbourhood movement is still in its infancy. About one-third of existing green neighbourhoods are Facebook groups without any regular physical activities; the others engage in one or more activities (see below). No two green neighbourhoods are alike or conduct the same activities. Most of them are still struggling to find the right organisation model that suits their own specific local context.

But the fact that green neighbourhoods have spread so fast without any help or intervention from local authorities shows that there is a real demand among Danish citizens to act collectively towards common sustainable goals.

Discussion

Green neighbourhoods have been directly inspired by ecovillages (and other kinds of green communities) and share some similarities with them. But green neighbourhoods also differ from ecovillages in several aspects.

The first similarity is that the portfolio of activities in green neighbourhoods include many of the activities found in ecovillages: green

communal meals, food cooperatives, repair cafés, upcycling workshops, swap days, energy communities, car sharing or lift sharing, planting micro-forests, wild fences, or gardens, growing organic vegetables in urban gardens, borrowing tools or things from each other, and cleaning up an area of the neighbourhood.

Some green neighbourhoods focus only on one activity; most are involved in a few activities, and none has, so far, taken on all activities within this portfolio. Green neighbourhoods usually begin with activities that are easy to organise and most likely to attract participants (such as collective meals, food cooperatives, wild gardens, and repair cafés) and can then move on to more complex activities (like energy communities, car sharing schemes etc.), once their organisation has been well established. Most of these activities have been practised for a long time in ecovillages and in specialised interest associations focusing on urban gardening, food cooperatives, car sharing or another specific green activity.

In other words, green neighbourhoods have not invented any new activity as they practise collective activities that are well established in ecovillages or in national associations with specific focus areas. What is specific in the green neighbourhood movement is that they try to combine these different specialised interests in a more mainstream, everyday life model.

A second observation is that green neighbourhoods, like ecovillages, have flexible and anarchic modes of organization that are closer to communities (*fællesskaber* in Danish) than to associations (*foreninger* in Danish). Voluntary associations have a long history in Denmark and are generally considered important in building grassroots democracy^{24–27}. They are well defined and are built around a widespread, standardised model used all over the country. Associations hold general assemblies, in which dues-paying members elect a board with a chairperson, a treasurer, and auditors. Associations have statutes and bank accounts, and they produce written summaries of their discussions and decisions. In other words, they are bureaucratic organisations. This is the model adopted not just by green associations of shared cars, urban gardening, wild gardens, beekeepers, nature conservation, and so on, but also for a large range of sports associations and social clubs²⁸. This is also the model adopted by many ecovillages to manage their common economy.

But along with being a registered association, a requirement in order to be recognized by formal institutions such as banks or local governments, ecovillages also organise their activities more informally, with common meetings organised around ad hoc working groups that prepare food, grow vegetables, raise chickens, sort garbage, and organise a broad variety of common activities. These working groups are not associations (they have no elected board, no statutes, and no bank account), but rather work as communities, i.e., as a group of people sharing a common and sometimes temporary interest in something and finding their own way of collaborating around it.

It is this community aspect that has spread to green neighbourhoods, since most of them are not registered as associations, but rather identify and present themselves as voluntary communities instead of voluntary associations. These communities are non-bureaucratic and based on ad-hoc local interests. There is no general assembly, no elected board, and no membership fee. The activities of green neighbourhoods are organised by groups of volunteers who join forces for some period of time, before being replaced by others. Activities simply disappear if there is no one to take over and new activities appear where there is a core group of neighbours who collaborate to make them work.

The volatility of this type of organisation is both a strength and a weakness of green neighbourhoods and ecovillages alike. It is a strength because it is flexible and makes room for anyone having something to contribute: participation is based on will and requires little formal commitment. Denmark is experiencing a decline in the popularity of voluntary associations, where ‘the more or less automatic membership of associations is a thing of the past’²⁹ and where ‘the mode of participation among Danish volunteers is currently changing from a predominantly membership-based

mode to a plurality of forms, characterised by episodic and non-membership-based attachment’³⁰.

The growth of eco-communities may be a sign that collective engagement is not necessarily declining, it is changing form. But the anarchic organisation of communities also represents a risk and a weakness in that activities exist only as long as there are people willing to carry them out and disappear as soon as the will withers away, or people fail to collaborate.

A third observation pertains to decision making and conflict management. In associations, issues of decision making and conflict management are normally dealt with by statutory rules and majority democracy. Members vote, the majority decides, and there are checks and balances to avoid a concentration of power. Some organisational bodies (members) can and do hold others accountable (the board). However, decision making and conflict management in a community works differently: they are based on consensus or consent rather than on majority rule. Those who take initiative and want to take responsibility to do something are given—or are taking—this responsibility and move ahead with their project. But they can best recruit other participants if they share their responsibility and make room for others to accommodate their wishes and desires. If participants are dissatisfied with the management, they can simply vote with their feet and go elsewhere, leaving the self-appointed leader alone with his or her project, which then collapses as a collective project (until it might be reborn under another self-appointed leader). During the past 10 years, many ecovillages have transitioned to use sociocracy rather than democracy to take decisions. Sociocracy is a governance method designed to make decisions by hearing everyone and by reaching consent on the basis of common denominators rather than on the basis of a confrontation between opposing views in a vote^{31,32}. Again, this system has strengths and weaknesses. Its strength is that it can accommodate everyone’s wishes, including that of minorities. It does not require long meetings about everything, but rather delegates the decision-making power to those most affected. The weakness of the diffuse power distribution is that the system is volatile and dependent on the social or personal chemistry among collaborating participants.

A fourth observation is that green neighbourhoods and ecovillages differ in their level of commitment. People who live in an ecovillage co-own things (communal buildings, land, infrastructure), which they must manage collectively through a common economy and collective decision making mechanisms. This is not an option; it is a necessity and an obligation. People who move to an ecovillage know that they must take part in some sort of communal activities and that they will stay if not permanently, then at least for some time.

Green neighbourhoods are different since people might have limited contractual obligations towards and in common with their neighbours. Their shared characteristic is that their housing type is based primarily on private ownership or on a rental agreement. Members of a green neighbourhood might co-own or be co-responsible for some communal areas, such as a common staircase, gardens in apartment buildings or a common road in villa areas, in which case the management of these areas is usually organised by a bureaucratic association. But apart from this, people can live their lives independent of their neighbours. Participation in the collective activities of the green neighbourhood is therefore not a necessity or an obligation as it is in ecovillages, it is purely voluntary.

A fifth and final observation concerns segmentation and inclusion. The recent mapping of co-housing projects in Denmark based on register-based analysis and qualitative studies²⁰ shows that in general, residents choosing the community lifestyle have completed higher levels of education, they have higher income, more residents are employed as managers, and more couples have children. But fewer residents have non-Western backgrounds. This particular segmentation of the population of co-housing projects may be due in part to the fact that the establishment of Danish ecovillages and co-housing projects has predominantly been based on a bottom-up approach that requires higher than average social and economic capital²⁰. When re-letting and re-selling housing, there is also a tendency to recruit residents who are similar to the present residents. The household who moves in must (in some cases) be approved by the community, which typically requires

several face-to-face meetings. The potential buyer is introduced to the collective infrastructures and rules of the community, and s/he must convince the ecovillagers that s/he will be a good member and will participate actively in collective activities.

On the one hand, both qualitative studies and research literature (e.g., Jensen et al. 2022a) show that there is a strength in residents being similar and sharing a common set of values, which facilitates joint action and more sustainable choices. On the other hand, this might reflect an exclusion mechanism³³ that might slow down the spread of the ecovillage model to other (more average) segments of the general population, even though they might also have a high demand for more community-oriented forms of housing and lifestyles. By contrast, green neighbourhoods accept everyone: the more participants, the better. If there are too many, the green neighbourhood can split into smaller units. Neighbourhoods, like ecovillages, often exhibit some kind of social homogeneity. But because most green neighbourhoods currently exist at the level of large areas with several thousand inhabitants, they are inevitably more diverse than ecovillages. Therefore, green communities are more inclusive and have a higher diversity, even though the way someone can feel included or excluded depends on how the specific green neighbourhood is organised.

Members of eco-communities and green neighbourhoods will probably not achieve the same reduction of carbon footprint that has been measured in ecovillages. But the recent rapid spread of eco-communities and the even more impressive spread of green neighbourhoods in all corners of Denmark might do more than compensate for a lower reduction in their carbon footprint. In other words, while the dissemination of the sustainable practices of ecovillages into eco-communities and green neighbourhoods might soften its impact on environmental behaviour, it might also make it possible to create a mass movement that has a larger environmental impact than that of all ecovillagers taken together. Moreover, modest reductions in carbon footprint in the early stages of development might become larger with time as green neighbourhoods engage in an increasing number of sustainable activities and more eco-communities are established. Finally, becoming a mass movement might create a much stronger leverage on politicians and encourage them to make bolder decisions that the more sub-cultural ecovillages have ever managed to achieve.

Despite all the qualities of ecovillages and the impressive impact they can have on carbon footprints reductions, the rhizomatic spread of this model is too slow, too costly, and too exclusive. The ecovillage movement is insufficient: it cannot address all the challenges of the climate crisis. But its most important contribution to the green transition might lie elsewhere, namely in its pioneering and demonstration of appropriate climate-friendly practices and the inspiration that it can provide to mainstream society³⁴.

In Denmark, ecovillages have inspired the birth and spread of eco-communities and a national movement of green neighbourhoods. If this movement continues to progress, proves to be resilient, and delivers a significant reduction in the carbon footprints of its members, then it has the potential to create a cascade of tipping points on an increasingly larger scale. This has the potential to lead to a rapid and major transformation of politics and society on a scale that can match the radical societal changes required to mitigate or even solve the climate crisis.

Methods

Ecovillages and eco-communities

The qualitative data on which this paper is based on relies on extended periods of participant observation. The first author has 18 years of experience living in an ecovillage that she helped establish and approximately 6 years of experience facilitating the creation of new eco-communities. She serves in the council of the Danish Association of Ecovillages and has played an active role in Global Ecovillage Network (GEN) Europe for many years. She has been a co-initiator of the communities association in Denmark (Bofællesskab.dk) since 2018, where she serves as the vice-chair with sectoral expertise and is responsible for research collaboration. Over the years, she has developed a substantial

understanding of the ecovillage and eco-community movement at the micro-level (everyday life), the meso-level (interaction with municipalities), and at the macro-level (national legislation and international collaboration).

Green neighbourhoods

The second author has been a leader of a research collaboration that has inspired the birth of the green neighbourhood movement in Denmark. He has closely followed the development of this movement from its early stages and is personally involved in several green neighbourhoods in the Copenhagen metropolitan area. He has participated in several core green neighbourhood national activities, such as two Climate People's meetings in Middelfart town (at which the green neighbourhood movement was actively represented), three green high schools organised by the national green neighbourhood movement where he has met dozens of other volunteers, and he has a thorough understanding of the daily workings and organisation of green neighbourhoods at both local and national levels.

SAMSKAB

Therefore, the data constituting the basis of this article come primarily from first-hand knowledge and personal experience as engaged participants in the development of eco-communities and green neighbourhoods. Both authors are members of the SAMSKAB research project (<https://www.omstilling.nu/samskab>), which studies how to facilitate the establishment of green communities in Denmark and the impact of such communities on social and environmental behaviour. The SAMSKAB project is financed by the Velux Foundation (grant number 40322). The first author is employed part-time by the organisation Bofællesskab.dk, working to create an enabling environment for community living in Denmark. She is also employed part-time by the Danish Association of Ecovillages (LØS).

Data availability

Our qualitative data are freely available upon request.

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Author contributions

The first author, Camilla Nielsen-Englyst, has contributed specifically to the first avenue about eco-communities, where the second author, Quentin Gausset, has contributed specifically to the second avenue, about Green Neighbourhoods. Both authors have contributed equally to the structure and argument of the paper.

Competing interests

The authors declare no competing interests.

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