GOLD VI

Case-Based Contribution
to Chapter 7: Renaturing
GOLD VI Report on Pathways
to urban and territorial equality

Fighting climate change in cities:

urban agriculture, green AND affordable

homes and neighbourhoods

Fighting climate change in cities: urban agriculture, green AND affordable homes and neighbourhoods

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CITIES/COUNTRIES IT COVERS

Karise (Denmark) ; Boston (United States); Rennes (France)

CHAPTER

7: Renaturing

SUMMARY

This contribution examines sustainable initiatives to renature and produce food in cities at different scales and involving public sector and community stakeholders. At the small scale, Karise Permatopia - a rural co-housing project in Denmark - is collectively implementing a sustainable system rooted in the values of permaculture and with a strong sense of community, using renewable energy and circular economy principles while being self-sufficient in food. The housing and farming community managed to collaborate with a public housing organization and negotiate the local zoning with the municipality to build housing on rural land managed by the collective. In urban contexts, like Boston or Toronto, Community Land Trusts have been implementing important urban agriculture projects, which are facilitated by removing the speculative value on land that can, therefore, be used for agriculture purposes without being subjected to the market pressure. Finally, at the metropolitan scale, the municipality of Rennes is exemplary at providing support for renaturing the city through public policies that foster large- and small-scale urban agriculture, promoting the idea of a "feeding city" while granting financing, allocation of land and capacity building to community-led initiatives.

Introduction

How can human settlements ensure both housing and feeding their inhabitants locally without devastating the ecosystems ? Is it possible to preserve or reintroduce nature and farming in dense urban spaces when the land market is inciting to build high value real estate in every vacant spot? As the following examples from Denmark, United States and France show, renaturing our living environment can take place at different scales and involve partnerships between local and regional governments (LRG) and a variety of stakeholders including social housing institutions, non-profit and community-driven housing projects and the urban residents themselves.

Orchard and animal pens for urban eco-pasture (cows, horses, donkeys, goats, sheep, geese, pigs...) in the Landry parc in Rennes, France. Source: Pierre Arnold, 2021.

1. Collectively realizing a utopia: renewable energy, circular economy, and self-sufficiency

Karise Permatopia is an innovative example of how **community-led housing** can integrate sustainable practices, by developing both a co-housing and a farming community with the values of permaculture[1] and sustainability at its core. Participatively managed and run by its 90 families and with 29 hectares of land located in **Karise** (Denmark), around 60 km south of Copenhagen, the Permatopia project was conceptualized by a group of people who wanted to rethink the way our society is currently structured. Rooted in the values of **permaculture, circular economy and food sovereignty**, the housing and farming community is a sustainable system that represents an alternative to the society based on limitless production and over-exploitation of natural

resources.[2]

The 90 houses were built using non-toxic and sustainable materials with a low-ecological footprint and designed to be expanded by self-construction, if needed. They use an efficient energy grid with an emission-free heating system from a wind turbine and a heat storage.[3] Moreover, sewage is treated on-site while striving for a closed sustainable cycle, recovering nutrients that will be later used on the on-site farming that allows residents to be largely self-sufficient in organic food.[4]

To ensure social diversity in the community, the project comprised different types of tenure: public rental housing (in which houses are owned by a public housing organ-

1. Expats in Denmark, 2017

2. See Euroheat website: https://www.euroheat.org/knowledge-hub/eco-village-permatopia-rolling-sustainable-future/

3. See cohabitat.io profile: https://www.cohabitat.io/en/projects/b1d0acec-f56b-48ac-862d-a09cbd4909e2

4. Op. cit.

ization), cooperative housing and private-owner housing.[5] Moreover, to further ensure that the ensemble of Danish society is represented in the project as well as to promote diversity in the community, different housing quotas were earmarked to families with children, middle-aged people, young couples without children and the elderly.[6]

Different stakeholders involved

The community managed to **negotiate with the municipality of Karise to modify the local zoning**, dedicating 2 hectares of rural land to a housing area and as an extension of the village of Karise, which allowed the necessary permits for the sewage and heating systems.[7]

The projects did not have any public financial aid and it had to count with a lot of volunteer work from its members. At the beginning of the project, the collective managed to find an architect and engineering company willing to co-develop the houses, the design and the utility systems and only

be remunerated if the project was carried-out, with the houses sold.[8] Moreover, the initial collective managed to sell part of the houses to the public housing organization, Sydbo, which currently provides for the social rental scheme in Karise.[9] This strategy provided for half of the funding needed and the other types of houses (individual and cooperative housing and facilities) were financed through mortgages.

The cooperative society, besides owning some of the houses, also manages the communal house, the organic farm, the supply system as well as a car-sharing scheme. All residents in Karise are part of the cooperative society and contribute with a minimum of 2 hours per week of work.[10]

By associating with public stakeholders, Karise Permatopia successfully managed to **combine sustainable housing with affordable solutions through social rents** (under the market prices), democratizing the access to such an innovative and self-sufficient project.

2. Tacking land out of the urban market to produce local healthy food as a community

The concept of **Garden Cities crafted by Ebenezer Howard** in 1898 is still a very inspiring alternative to the expansive urban development model that transforms green areas into impermeable surfaces. The Letchworth and Welwyn Garden Cities built in the north of London applied Howard's idea from the planning, architecture, and local food production to the community ownership of all the land in a trust which seeks to prevent speculation and to guarantee a harmonious and sustainable society for its citizens.[11] Unfortunately, the collective ownership of land has not been replicated

elsewhere, as the Garden Cities throve in Europe, North and South America.[12] In these Garden Cities or neighbourhoods, the land-value increase only benefited the individual landlords, thus generating the same inequalities in the access to land and housing than in any other town or city.

Since the 1970's, plenty of **Community Land Trusts (CLT)** have reinvented Howard's original idea, taking land permanently out of the speculative market. In fact, the non-speculative tenure of land allows CLTs to develop urban

5. See the official project website: https://www.permatopia.dk/vision/

6. W Expats in Denmark, 2017

7. See cohabitat.io profile: https://www.cohabitat.io/en/projects/b1d0acec-f56b-48ac-862d-a09cbd4909e2

8. Op. Cit.

9. Op. Cit.

10. Expats in Denmark, 2017

11. Ross and Cabannes, 2014.

12. Cabannes and Ross, 2020.

agriculture facilities for small community gardens or even large farms and open spaces for greenhouses or animal farming.[13] Some examples are the 650m² Milky Way Garden parcel stewarded by the Parkdale Neighbourhood Land Trust in **Toronto** (Canada) or the 6,700 hectares of land for agricultural and conservation uses, stewarded by the Athens Land Trust in rural Georgia, in Athens, outside **Atlanta** (United States).[14] Trustees, which generally include residents, community members and local officials, can effectively prevent green and agricultural land from being developed for real estate purposes, and sustainably manage it to ensure **a local healthy food production** for urban neighbourhoods as well as **job opportunities** within the community.

In the case of the Dudley Neighbors Incorporated CLT (DNI), in **Boston** (United States), the CLT received in trust 12,140 hectares of vacant public land from the municipality in 1988 to generate affordable housing and commercial development opportunities for the community members of this urban district. Since the beginning, DNI assigned several plots of land to urban farms, community greenhouses and gardens to revitalize the neighbourhood and promote access to local food. The land under the greenhouses is leased to The Food Project, a local non-profit organization which trains young people to operate farms.[15] This food production has proven to be fundamental during the first months of the COVID-19 crisis, when crops could be **distributed for free to vulnerable residents** who had lost incomes due to the lockdowns and economic crisis.[16]
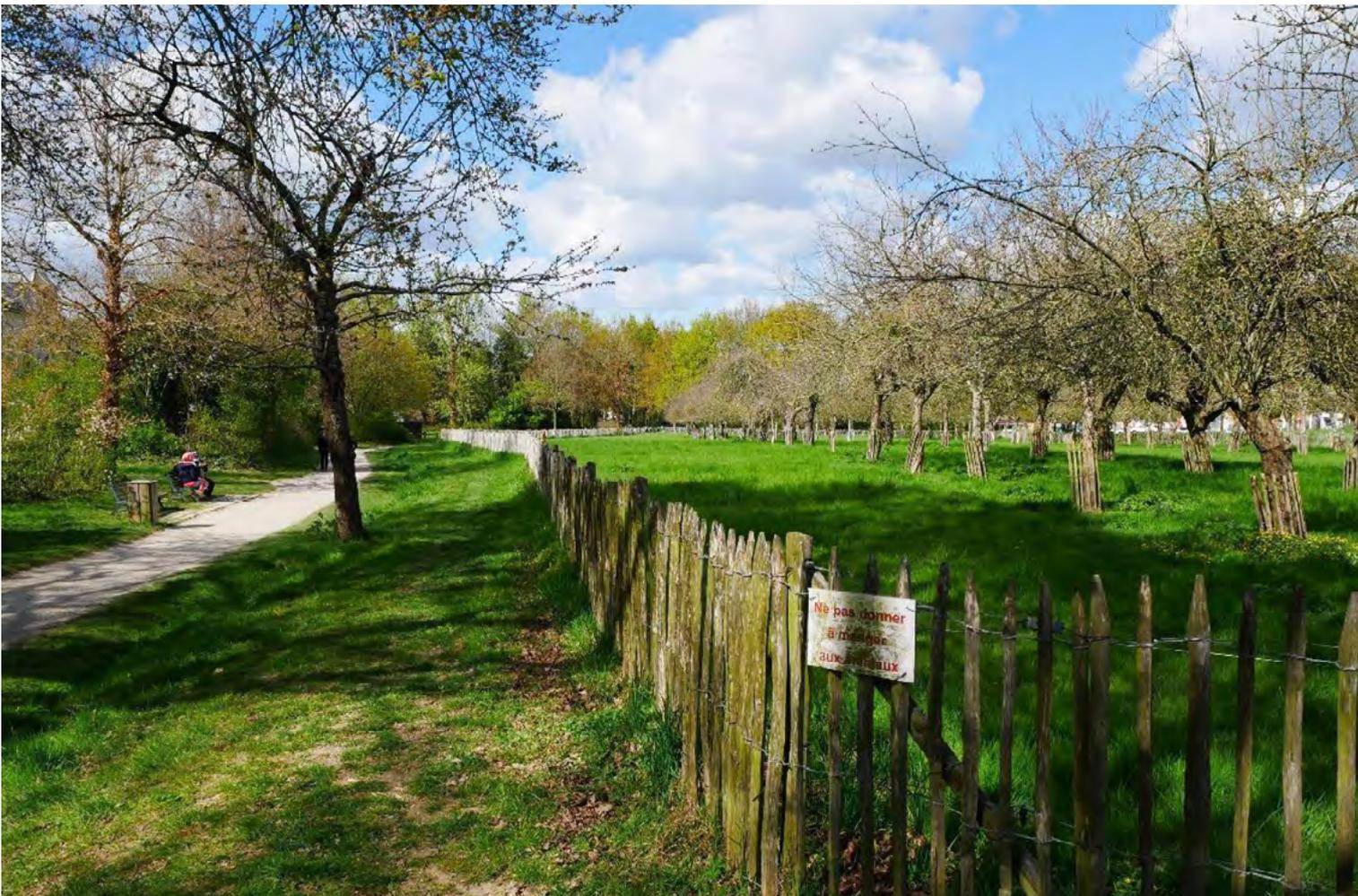
13. Rosenberg and Yuen, 2012.

14. King, 2020.

15. Smith and Hernández, 2020.

16. urbaMonde, 2020, pp. 86-87

Orchard and animal pens for urban eco-pasture (cows, horses, donkeys, goats, sheep, geese, pigs...) in the Landry parc in Rennes, France. Source: Pierre Arnold, 2021.

3. Renaturing at the city-scale promoting community-led initiatives, the example of Rennes

Where there is a voluntarist public policy, renaturing cities can be achieved even at metropolitan scale. This is the case of the city of **Rennes**, in Brittany, northwestern France. In 2020, the city had 216,000 inhabitants in a metropolitan area of 450,000 inhabitants developed since more than 30 year as a 'archipelago-city' *(ville archipel)* in a green sea of fields and natural spaces protected from urbanization by different spatial planning schemes.[17] Instead of spreading like an oil stain, the growth of the metropolis has been achieved by **densifying Rennes and the surrounding small towns which are connected to employment and activity zones through an efficient and affordable metropolitan public transport system** (trains, buses, metro and cyclepaths).

In 2016, the municipality came up with the ideal of becoming a "feeding city" *(ville nourricière)*. This means **investing and promoting large- and small-scale urban agriculture, pedagogy about sustainable food, and the protection of biodiversity**. In addition to its urban parks and forests, the city now has 225 hectares of urban agricultural land, including 27 professional farms, 6 sites with pedagogical farms or training farms for young professional farmers, and also over 1000 individual family vegetable gardens and over 70 shared gardens inserted in the urban fabric.[18]

Like in many other cities around the world, non-profit and citizen organizations have been key partners of the municipality in the dissemination of these new agricultural practices applied at different levels (permaculture, composting, vegetable growing in urban wasteland or rooftops, public and private spaces, farming and apiculture, etc.). The town hall has encouraged these initiatives through the annual participatory budgeting process, specific land allocations, the free delivering of composters, capacity building, etc. Through collective mapping between the municipality and the non-profit association Vert le Jardin, citizens can easily find the closest shared garden or collective compost sites, contact with the local referent persons to start participating in renaturing the city and generating more cohesive communities.[19] The city also developed agriculture in primary schools for the young generations to learn, practice and eventually teach their parents.

In Rennes, all these urban farming areas together with parks, rivers and canals contribute to the wider metropolitan "green and blue" corridors which connect the forests and fields from the surrounding countryside to the streets and backyards of the city, playing an essential role for the fauna and flora's protection and development.[20] The collaboration between the municipalities, the metropolitan administration (Rennes Métropole) and the citizens is the key to a contagious renaturing process at different scales.

17. Chapuis, 2013.

18. See Rennes Métropole website: https://metropole.rennes.fr/lagriculture

19. See Vert le Jardin website: https://www.vertlejardin.fr/spip.php?mot8

20. See Audiar: https://www.audiar.org/sites/default/files/documents/etudes/2020_indics_scot_web.pdf and https://www.audiar.org/sites/default/files/documents/etudes/trameverttebleue_note_200x265_web.pdf

Urban agriculture area in the Landry parc
in Rennes, France
Source: Pierre Arnold, 2021.

Conclusion

For effectively responding to the daunting challenges society faces, systemic change must come to place, going beyond individual sustainable practices. LRGs have an important role particularly regarding the allocation of specific land uses that will guarantee that natural and agricultural areas will remain despite the pressure on land and the demographic growth of the cities. The densification and interconnection of existing centralities to preserve green land inside and around the cities is a key learning from the "Archipelago-City" of Rennes. LRGs should also sell or lease public land to non-profit organizations like CLTs that will take it out of the speculative market and ensure land uses that benefit the neighbourhoods, including urban agriculture and community gardens, like in Boston or Toronto. By participating on the board of trustees of the CLTs, LRGs can orient the land management and purchase of the CLTs together with residents and community-based organizations. This collaborative land management model has an important potential that is yet to be explored by LRGs in the world. Finally, community-led initiatives like Karise Permatopia are emerging everywhere as a consequence of a global awareness of the harmful consequences of globalization on the environment and global warming. LRGs have an essential role to encourage and support these innovative initiatives by providing adequate regulatory frameworks, land opportunities and funding to contribute on various fronts to the shift towards more sustainable lifestyles and human settlements.

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RENATURING

This paper has been produced as a Case-Based Contribution to the sixth Global Report on Local Democracy and Decentralization (GOLD VI): the flagship publication of the organized constituency of local and regional governments represented in United Cities and Local Governments. The GOLD VI report has been produced in partnership with the Development Planning Unit (University College London), through the programme Knowledge in Action for Urban Equality (KNOW). GOLD VI focuses on how local and regional governments can address the local manifestations of growing inequalities and contribute to create "Pathways to urban and territorial equality". The GOLD VI report has been produced through a large-scale international co-production process, bringing together over a hundred representatives of local and regional governments, academics and civil society organizations. This paper is an outcome of this process and is part of the *Pathways to Equality Cases Repository*, which collects the over 60 Case-Based Contributions produced as part of the GOLD VI report.

In particular, the present paper has contributed to Chapter 7 on "Renaturing", which focuses on the governance and planning of nature-based solutions, with specific emphasis on decoupling economic development and resource use, the transition to net zero carbon systems, risk reduction and urban resilience. The chapter explores how local and regional governments can promote approaches that advance these goals, placing the needs and priorities of structurally discriminated social groups at the core of their actions, and contribute to urban and territorial equality.