City Resilience: Building cultural repertoire for urban farming in Almere

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Cities throughout the world are facing mounting pressures. In The Netherlands, increased social tensions, public health problems like obesity, increased demands for housing and quality public space, decreased financial means and climate change are all challenging the cities' ability to cope. An effective response to these challenges will inevitably include increasing city resilience; and urban agriculture is ideally suited to play a major role in this process. Introducing mechanisms that increase city resilience seems to be necessary, and there are many reasons why urban agriculture can play a role.

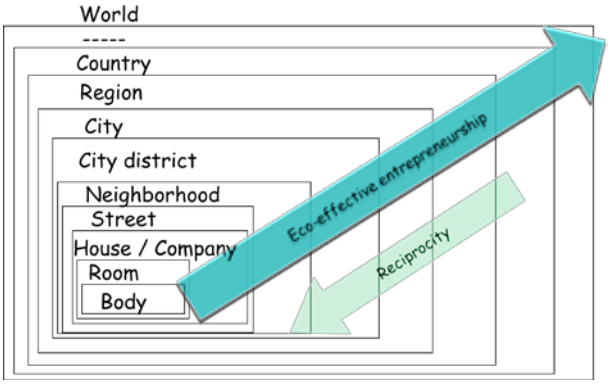
This paper will not discuss how urban agriculture affects city resilience (see UAM no. 22 and the paper of Dubbeling on page 42). Instead, I argue that we need to look beyond it and take a transformational perspective focused on city *vitality*, and generate cultural practices that accommodate change and adaptation in city life, through urban agriculture. The development challenge of the City of Almere will be used to illustrate this.

Integral sustainability

While *resistance* refers to the capacity to withstand impact, *resilience* refers to the capacity to rebound from it, eventually regaining original form and function (Walker et al. 2004). Essential to both concepts is the notion that the impact is undesired, and, if possible, a return to the original situation is preferred. *Transformation*, however, is not so much focused on bouncing back, as on bouncing forward. It refers to the capacity to move along with disturbances in order to integrate their key qualities (or messages) in a new and more inclusive identity and organisation. Transformation thus demands awareness and the capacity to listen. For instance, in the Netherlands increased obesity among school children is expected to challenge the health system (increased costs in the long term) and affect individual capacities (which will in turn impact the labour market). A transformational approach to this problem would focus on new lifestyles (that include physical exercise, healthier food etc.) and seek opportunities to facilitate them. This can involve urban agriculture, for example by incorporating agriculture and food in school curricula. Such pilots are ongoing in the Netherlands at present, which in the end may transform the educational landscape.

A transformational approach can be embodied through *eco-effective entrepreneurship*. The term 'eco-effective' originates from the 'Cradle-to-Cradle' philosophy, and refers to generating maximum added value or throughput, as opposed to eco-efficiency, which is inspired by minimising resource use. (Braungart and McDonough, 2002). Hence eco-effective is also focused on *bouncing forward* instead of bouncing back. The intention is to redesign productive processes to the extent that every output can be an input for a next product. 'Entrepreneurship' is understood in a broad way, referring to 'being entrepreneurial' rather than to 'leading a company'. Hence, entrepreneurs can be citizens, government officials, politicians, and businessmen alike. There is an implicit concern for the wider environment in eco-effectiveness: the output generated should not only be beneficial to the individual (or company...), but also to a wider environment. The notion of *action-habitat* (Remmers, 2009) is instrumental here. An *action-habitat* is the area for which an individual feels responsible and feels authorized to value and help manage.. Such an area can range from a person's own body to the whole globe and beyond. See figure 1.

Figure 1. Action habitats, ranging from micro to macro

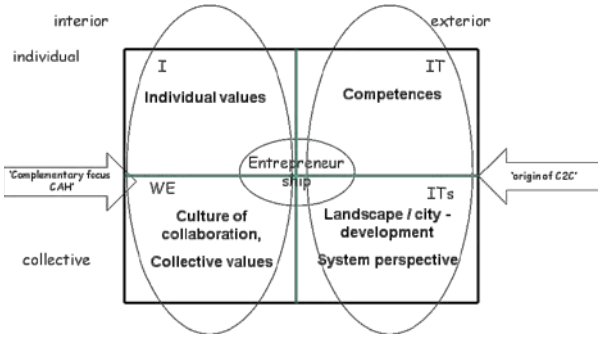


Eco-effective entrepreneurship is essentially the movement towards a more encompassing action habitat. It also includes a reciprocal movement, i.e. increased care for the well-being of a city or the planet as a whole should go hand in hand with appropriate care for a neighbourhood, and with an appreciation for the small efforts of someone who e.g. only has the power to tend flowers on his or her balcony. Eco-effective entrepreneurship always gravitates to one or other level of scale, but will do so aware of the added value provided at lower and higher levels. It hence transcends and includes.

Two dimensions are important in further exploring these action habitats: the polarity between the *individual* and the *collective*, and between *interiority* and *exteriority*. City Vitality shows both in material as well as immaterial manifestations of sustainability, as is shown in Wilber's integral

quadrant (Wilber 2000). Eco-effective entrepreneurship is located at the intersection of the four quadrants. One cannot work integrally, if both the subjective and objective are not present in both individual and collective domains (see figure 2). Generally speaking, Cradle to Cradle focuses more on the right-hand quadrants, the physically measurable and manageable redesign of flows of elements. Of course there is attention for the interior dimensions, but this is much less developed. But especially the crucial role of individuals and collectives in the design of *new cultural repertoire*, to promote and develop sustainable processes and results, needs examination and support. *It is this cultural repertoire that is badly needed to transform incidental successes in sustainable city development into enduring performances.* Likewise, it will facilitate the emergence of lasting eco-effective entrepreneurship at the crossroads.

Figure 2. Eco-effective entrepreneurship in an integral perspective



Finally, it is important to recognise that there are different stages of development, informed by different *value systems* (Beck and Cowan, 1996), which give rise to different expressions of sustainability in all four quadrants. An individual may be highly motivated to buy regional, organic food (upper left quadrant), but live in a neighbourhood where people prefer fast food (lower left), whilst the cities' spatial planning system is not able to anticipate changing food preferences (lower right). Or vice versa: a spatial lay-out with ample scope for urban farming (lower right), but a city business culture that is not able to transform it into profit (lower left), while many individuals proclaim to value urban farming (upper left), yet few translate values into buying behaviour (upper right). Generating congruency between value systems is a big challenge for urban farming to thrive and contribute to city vitality. In the case of urban agriculture, there is need to continuously link and rethink sustainability performances at different stages of cultural development, in order to create a more stable sustainability culture.. To underline this point, the cities in the world that, as far as sustainability is concerned, serve as a model for Almere (e.g. Copenhagen, Vancouver, Freiburg) are cities where a ***culture of sustainability*** is present. The goal in the realm of urban farming would be to facilitate the dynamic interplay between core value systems and life conditions at different levels (action habitats), that lead to *generative* urban farming practices, that is, practices that are open to contributions by several actors and can hence grow. Or, as Regeer et al (2011) would put it: *that connect values*.[1]

The Almere Principles

The City of Almere is a so-called New Town in the province of Flevoland, initiated only 35 years ago on the bottom of the former Lake Ijssel. Since 1975, it has grown from zero to 190.000 inhabitants in 2010, and will approximately double its size by 2030, to meet demands for housing in the western part of The Netherlands. This requires some 60,000 new houses to be built, and a 100,000 new jobs to be created in the next twenty years. The city council aims to meet this huge challenge by putting the stress to its advantage: "if we are to do it, let's do it by embracing and advancing the state of the art of sustainable city development". In 2008 the city adopted the so-called Almere Principles, created in collaboration with Cradle to Cradle guru William McDonough (see figure 3).

Figure 3. The Almere Principles

The Almere Principles

For an ecologically, socially and economically sustainable future of Almere 2030

Almere, a new town designed thirty years ago on land reclaimed from the sea, will be a liveable and healthy city in 2030. It will continuously renew and transform itself, thereby strengthening the qualities of its polycentric structure and its environment. Almere will be a vital community with diverse living and working opportunities, within a beneficial abundance of open space, water, natural and cultivated landscapes that can grow and change over time. The Almere Principles are meant to inspire and offer guidance to those involved in further designing Almere as a sustainable city in the next decades. The realization of this vision is an act of culture and the expression of an optimistic approach of the future.

1. **Cultivate Diversity**
   To enrich the city we acknowledge diversity as a defining characteristic of robust ecological, social and economical systems. By appraising and stimulating diversity in all areas, we can ensure Almere will continue to grow and thrive as a city rich in variety.
2. **Connect Place and context**
   To connect the city we will strengthen and enhance her identity. Based on its own strength and on mutual benefit, the city will maintain active relationships with its surrounding communities at large.
3. **Combine city and nature**
   To give meaning to the city we will consciously aim to bring about unique and lasting combinations of the urban and natural fabric, and raise awareness of human interconnectedness with nature.
4. **Anticipate change**
   To honour the evolution of the city we will incorporate generous flexibility and adaptability in our plans and programs, in order to facilitate unpredictable opportunities for future generations.
5. **Continue innovation**
   To advance the city we will encourage improved processes, technologies and infrastructures, and we will support experimentation and the exchange of knowledge.
6. **Design healthy systems**
   To sustain the city we will utilize 'cradle to cradle' solutions, recognizing the interdepence, at all scales, of ecological, social and economic health.
7. **Empower people to make the city**
   Acknowledging citizens to be the driving force in creating, keeping and sustaining the city, we facilitate opportunities for our citizens to pursue their unique potential, with spirit and dignity.

The words of the Almere Principles will come alive and become meaningful through human action, by incorporating them on each level into every design for the city as whole.

From its birth in the 1970s sustainability was sought after by providing Almere with a poly-nuclear spatial structure inspired by the English Garden Cities of Ebenezer Howard. A system of urban nodes or 'villages' emerged, with large green and blue public spaces between them; a system of separate bus lanes for public transport; a decentralised health- and care system close to the individual citizen; a – at that time

revolutionary – central city heating system, as well as a large underground airborne waste withdrawal structure. It's large green spaces between its urban nodes were also meant to facilitate the integration of agriculture with urban life – a kind of urban farming avant-la-lettre and Almere was the first city in The Netherlands to officially host an 'urban farmer'. Recent examples of Almere's achievements in this area, are the sustainable neighbourhoods Buitenkans, a citizens collective initiative for building an ecological neighbourhood with 75 dwellings in a collectively owned and maintained public space, and Columbuskwartier, which is more mainstream development but with high standards for sustainable building combined with a special focus on the quality of public space. A good example of technical innovation is the renewable energy installation Solar Island Almere, supplying the adjacent neighbourhood with 10.000 Giga Joules of renewable heat each year. The programme "I built my home in Almere" is a successful innovation in the realm of culture and governance, in which every individual household is empowered to built their own home, facilitated by the City of Almere with special guidance in the building process and financial arrangements.

However, making the principles work in practice demands a lot from the existing working routines, cultures and consciousness in different sectors of Almere society. How to translate the Almere Principles into new supportive municipal routines? How to co-create the aspired city sustainability with the business sector, with NGO's and inhabitants alike? Does Almere have enough critical mass to substantiate its promises? Can the city double its size, while at the same time facilitate a balanced development of the existing town?

If Almere is to develop into an icon of sustainability, it also needs to develop a *culture* that is a natural nurturing ground for iconic sustainability practices to emerge. The ambitions are set high, the blocks on the road are likewise and often invisible or unknown. To circumvent, bypass and help evaporate these blocks, an *integral sustainability* perspective can be helpful. Urban Farming is coined, by the Almere Administration, as one of the vehicles to achieve this, in the existing city, and in the city to-be-designed and built.

Urban Agriculture in The Netherlands...

Attention to urban agriculture emerged in the late eighties, early nineties, in the context of the new relations between urban and rural areas, pursued basically by rural areas that sought new modes of existence in the face of a globalizing economy, through offering leisure services based on regional qualities, that fitted well with urban demands. Most offered new services and products to clients, some also reconstructed the relational structure between producer and consumer; such as through Community Supported Agriculture (CSA, see UAM 24). Under the header of Metropolitan Agriculture, others searched to increase production, while reducing environmental impact and maximizing throughput by means of an optimalisation of ecological loops. This has led to high-tech propositions in which different agricultural enterprises are linked, some of them serving energy to adjacent neighbourhoods.

The drivers behind these new developments were almost always farmers with new ideological horizons. Yet, it has not been until about 2005, that urban dwellers themselves became pro-active actors in the game. Citizen organizations such as Lekker Utregs in Utrecht, Gezonde Grond in The Hague and Vereniging Boerenstadswens in Amsterdam actively sought to promote new urban-rural linkages. Amsterdam was the first Dutch city to develop policy to integrate food into the urban agenda. For the first time, the urban agenda gave shape to new urban-rural linkages, and not the rural agenda. Since then, attention for urban farming has proliferated. With it, a new generation of urban farmers and urban food entrepreneurs is developing, often with backgrounds that have nothing to do with farming.

...and Almere

In Almere, there is quite a strong civil movement concerned with the qualities of nature and landscape of the city. The Foundation City and Nature, and its offspring the Foundation Friends of Urban Farming, supported, in diverse ways, the continuity of the first city farmer in Almere and the city estate De Kemphaan, while at present, they are developing the Warmoezerij, an urban farming enclosure in the Almere Buiten district. The municipality of Almere aims to create, as part of its growth programme, a new neighbourhood that includes farming from the onset (source of inspiration for this new neighbourhood is the Agromere study by Wageningen University, see the contribution of Jansma on page 27). However, despite these experiences, the presence and contribution of urban farming to the vitality of Almere city is limited and fragmented. There is, at present, no coherent policy to address issues of neither regional food supply nor urban farming . At the same time there are a number of opportunities: a glasshouse area in decay could be revitalized from an urban farming perspective, in several neighbourhoods the maintenance of green spaces could go hand in hand with the strengthening of social cohesion; in fact, Almere has abundant, yet uncovered potential for urban farming.

Yet, this potential needs to be developed from scratch, while entrepreneurs and investors need viable business cases. All involved actors would benefit from increased synergy, joint learning, and scaling up of experiences, and an entity that is able to coordinate and facilitate this; that helps to build new *cultural repertoire*. To that extent, the *Almere Development Centre for Urban Farming* was recently initiated.

The Almere Development Centre for Urban Farming

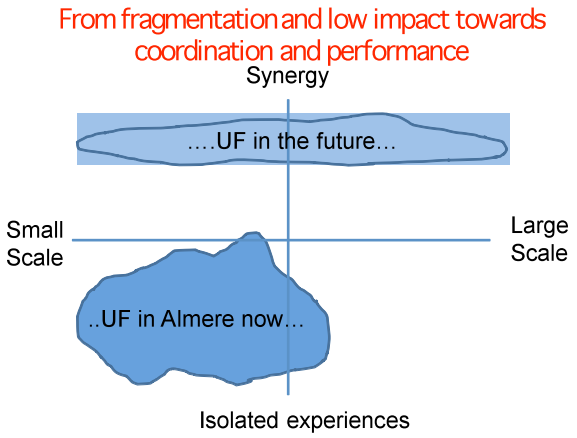
The Almere Development Centre for Urban Farming (or OSA in Dutch) is a result of the Economic Development Board Almere (EDBA). This Board aims to generate sustainable employment in Almere, and invited several organizations to develop viable and ambitious proposals. OSA was formally launched on May 17th, 2011. It is an initiative of four partners but is open to other partners:

- CAH Almere University of Applied Sciences, a new educational and research facility in Almere, with a background in agriculture and biology.
- Applied Plant Research - Wageningen University, with a

research station in Lelystad (Flevoland province).
- Witteveen + Bos, consultancy and engineering
- Flevoland Development Agency (OMFL), strengthening business development in Flevoland province.

OSA is coined as a vehicle to generate the cultural repertoire needed to develop sustainable and synergized urban farming practices for a heathy and vibrant Almere (see figure 5). It aims to fulfil a connecting role between practice, policy and research.

Figure 5. The development path of Urban Farming in Almere



Specific goals are:
- To develop viable urban farming businesses;
- To develop and integral urban food strategy;
- To develop a target oriented work and learning environment around urban farming in Almere;
- To strengthen environmental consciousness of citizens and professionals in Almere;

The Development Centre works with a portfolio approach. This means that at an operational level individual business cases are identified and developed – with a clear eye on coherence and mutual reinforcement of the business case. Parallel, and on a strategic level, supporting conditions in a broader sense are generated, like an urban food strategy for Almere. To adequately link both levels a Knowledge and Learning Environment is created that, at the same time is meant to generate professional capacities and competences in the long term. The Development Centre works with a long time horizon and is aimed to be in function for at least 10 years. Initial funding is now being procured; in the future it should be self-supporting.

If OSA is to play a coordinating role, it needs to have convening power. The diversity of domains with which food and farming can be related is immense. Hence, the choice for the term 'urban farming' is to some extent arbitrary. Many different images and expectations abound. This is difficult, yet at the same time the core of the matter. Farming in a city environment implies that it is multifunctional in nature, transcends sectors, links different levels of scale and involves a diversity of actors. Current examples comprise the whole range of small scale allotment gardens, child and educational farms and programmes, new local food webs, farm-enhanced health programmes, management of public green spaces, to high tech glasshouses delivering energy to adjacent neighbourhoods, optimizing ecological loops at industrial scale. Any other term would generate similar interpretation problems, hence the choice for 'urban farming' should be read as an invitation to a continuous rethinking of the established professional routines, in search of new, multifunctional and inclusive business concepts.

Figure 6. Associative domains of Urban Farming

URBAN FARMING LOCAL FOOD PRODUCTION ENERGY RE-USE OF GREEN WASTE MANAGEMENT OF PUBLIC GREEN SPACES AGROLOGISTICS LIVEBILITY NEW ENTREPRENEURSHIP CULTURAL INTEGRATION OF MIGRANTS NEW ORGANISATIONAL MODELS CARE HEALTH SOCIAL COHESION FOOD STRATEGY ACTIVE CITIZENSHIP ENVIRONMENTAL EDUCATION SPATIAL QUALITY

One conclusion from the RUAF-CAH conference in May 2011, is that coordination between stakeholders at all levels (local up to global) is vital to unfold the potential of urban farming for city vitality. The Almere situation is by no means unique. At present, there are a number of actors in cities worldwide that have come to the same conclusion as we in Almere with OSA. We think there is scope and urgency to engage in international encounter to inspire and help each other building both cultural repertoire and generative urban farming practices.

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Notes

(1) The Chair 'eco-effective entrepreneurship in urban environments' aims to explore, identify, conceptualize, merge and communicate a diverse array of eco-effective entrepreneurship at different levels of scale. It seeks to develop appropriate methodology to do so, in collaboration with local and global partners.

References

Beck, D, Cowan, C., 1996: *Spiral Dynamics: Mastering Values, Leadership & Change*. Blackwell Publishing.

Braungart, M, and W. McDonough, 2002: *Cradle to Cradle: remaking the way we make things*. North Point Press, New York.

Regeer, B., Mager, S., Van Oorsouw, Y., 2011: *License to grow: innovating sustainable development by connecting values*. Transforum and Athena Institute. VU University Press, Amsterdam

Municipality of Almere, 2008: *The Almere Principles*. Uitgeverij Thoth, Bussum

Remmers, GGA, 2009: *Stad-land relaties: over actiehabitats, ruimte en rollen*. In: Bezieling, de X-factor in gebiedsontwikkeling. In: Horlings, I, Remmers, GGA, Duffhues, T, 2009: p.90-103

Remmers, GGA , Van Oost, A, 2011: *Integral development of the city of Almere: some questions to go from challenging sustainability principles to vitalizing practice*. Position paper delivered at the 5th EuroConfab in SpiralDynamics integral, 7-10 April, 2011, Almere. (www.cahalmere.nl)

Walker, B., Holling, C. S., Carpenter, S. R., Kinzig, A. (2004). "Resilience, adaptability and transformability in social–ecological systems". *Ecology and Society* **9** (2): 5. http://www.ecologyandsociety.org/vol9/iss2/art5/.

Wilber, K, 2000: *A Theory of Everything: An Integral Vision for Business, Politics, Science and Spirituality*, Shambala.