

Urbaniahoeve: expanded urban agriculture

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Abstract

Since September 2009 Urbaniahoeve, Social Design Lab for Urban Agriculture, has been conducting action research in the Netherlands towards developing a signature, suitable, and resilient form of urban agriculture (UA) that could be widely adopted in the Netherlands and other Northern European cities. The physical and conceptual starting points for these UA typologies presuppose the use and integration of existing green and social infrastructure in addition to offering a clear benefit to the immediate surroundings. Urbaniahoeve has begun initiating structural formats of UA in the Dutch cities the Hague and Amsterdam by developing landscape architectural plantings for integrating urban food production into the public space. Together with local participants, Urbaniahoeve is creating spatially contiguous *foodscapes*, in underused, under programmed and over-paved urban typologies, infusing them with edible landscaping and socially-driven food-system activities. This paper charts Urbaniahoeve's specific areas of research and the resulting public greens and social typologies that range from planting designs, to food facilities such as (playground) cooking equipment, and from collaboration protocols and community involvement, to the strategic re-appropriation of under-used public space. The paper concludes with a statement about the characteristics that cultural sector UA project initiators like Urbaniahoeve typically bring to the field, and how these characteristics aid experimentation and innovation at a time when the development of resilient and immediately deployable formats for urban agriculture are so urgently needed.

#. Urbaniahoeve in context

Urbaniahoeve develops action research models that are examples of publicly maintained urban agriculture, strategically located in formerly underused public space. In 2010 Urbaniahoeve launched three projects comprising a (1) contiguous, productive *foodscape*, (2) public (playground) cooking infrastructure, and (3) a range of (educational) programming at both locations to provide skilling-up and engagement with the physical project locations. The choice to locate projects in the Hague/Schilderswijk and Amsterdam Nieuw West, were opportunity-based, motivated by considerations related to the practice of art and design. Though the 'public green spaces' of the Schilderswijk and those of Amsterdam Nieuw West differ as widely as their municipal agencies and institutions, Urbaniahoeve is working on the phased development of an urban agriculture platform within an urban neighbourhood context, one that can be accessed and maintained by multiple local stakeholders.

The next section describes three Urbaniahoeve urban agriculture project modules in development; *Foodscape Schilderswijk*, *DIY Mmmuseum of Oven Typologies*, and *All that Rot!*

Foodscape Schilderswijk (2010, ongoing; Solomon, 2010a)

Foodscape Schilderswijk is comprised of community supported planting interventions that will eventually sustain a physically contiguous, food-producing biotope in the Hague's Schilderswijk. The project originated as an 'Art in the Public Space' commission from Stroom (Hague Centre for Art and Architecture) as part of their multi-year manifestation, *Foodprint. Food for the city*. Both the project format and the term '*foodscape*' are inspired by Katrin Bohn and André Viljoen's 2005 book *CPULs: Continuous Productive Urban Landscapes* and refers to a physical landscape in which horticultural knowledge, cultural practice, food-system infrastructure, and a real food-producing biotope are co-located (Viljoen, 2005). In 2009, project *Foodscape Schilderswijk* began mapping the existing green and social infrastructure of the Hague borough ## the 'Schilderswijk' (Figure 1), a lower-income, ethnically diverse neighbourhood, to reveal potential action research models to form the *foodscape*. In May 2010, the Urbaniahoeve/Foodscape Schilderswijk team and local project participants from the Westenberg and Wellington streets began planting the borough's first community orchard in the Westenberg Hof (Figure 2). As of this writing (June 2011), project participants have established three orchard locations in formerly inaccessible and undesirable 'visual green spaces' with nearly 50 fruit trees, hundreds of berry bushes, artichokes, herbs and nectar-rich ground covers, and two tree planter mini-gardens.

Figure 1. *Foodscape Schilderswijk* (2009), of hand drawn map of the Hague borough Schilderswijk. The map depicts existing green and social infrastructure, and suggests locations and typologies for implementing borough-wide urban agriculture (Solomon and Abelman).

Figure 2. Planting the Westenberg community orchard. Neighbours from the Schilderswijk nurture their fruit trees planted in a formerly inaccessible piece of 'public space'.

In the Schilderswijk, like other boroughs subject to 1980s and '90s-style urban regeneration, most 'green (public) space' is landscaped to be solely 'visual'. Consistently lacking adequate (spatial) programming, one can easily observe that these green spaces were not designed for (physical) use (Alexander et al., 1977). This provokes a perception by a vociferous minority that the public space is being misused (Jacobs, 1993). Bearing this in mind, *Foodscape Schilderswijk* roots into neighbourhood infrastructures, both green and social, to generating edible forms of landscape with local stakeholders that re-activate public spaces like these. The planting and social design typologies under development are listed below.

But first a word about permaculture and on being involved with multiple partners. Permaculture is a design strategy for human settlements and agricultural systems inspired by the relationships found in natural ecologies. It aims to create stable, productive systems that provide for human needs, harmoniously integrating the land with its inhabitants.

There is a permaculture principle stating that every function (in a given system) must be supported by many elements. Should any element fail, the remaining elements can still support the function. An adjacent principle states that every element should serve many functions; its usefulness should be plural such that should any function falter, the element remains valuable within the larger system (Mollison 1988). These are principles about building resilience into systems, both environmental and social, and are embodied in the *Foodscape Schilderswijk* project design.

Foodscape Schilderswijk is not a community kitchen garden, but landscape architectural food system infrastructure, primarily *espalier* orchard with perennials such as berries, herbs and nectar-carrying, self-seeding (annual) ground covers, grown in the public space. As of this writing the project engages five different groups of participants, each with a different role and level of engagement towards the project as a whole:

1. Neighbours are involved as instigators, whose enthusiasm triggers the development of a new location (within e.g. the enclosed 'yards' of the Westenberg and Wellington Hofs), and the general nature of the planting typology. They participate in 'fun' community-style activities like Sunday afternoon tree-planting, but to date show no interest in the finer aspects of horticulture, *espalier* pruning, landscape architecture, urban agriculture or the politics of civic agency and public space. Recently the one year old *espalier* orchard beds located on the 'library side' of the Westenberg Hof have sparked interest in the neighbours on the opposite side to request collaborating on a new orchard location there, specifically because the existing beds are perceived by these neighbours to have a positive effect on eradicating litter and vandalism.
2. A group of mothers and children from *'t Palet Elementary School* have been involved since March 2011 in planting a classic *espalier* fruit wall on a formerly inaccessible strip of land adjacent to the school and a large local playground (*Hanneman Hoek*). Though this project location was intended for this specific group of mothers and children, its situation lures children from the adjacent playground to drop by and participate in planting activities. A regular group of 'drop-bys' has formed, some of whom are knowledgeable and appear to have a real interest in gardening.
3. The (*Hanneman Hoek*) location's high level of visibility (at a pedestrian crossroad) has also brought new adult participants to the *Foodscape Schilderswijk* project as a whole. Though unrelated to the group of mothers and children, they participate with the *Foodscape Schilderswijk* core team at this location (and others) twice a week. One of these participants is independently involved in the development of a permaculture community garden one block away (*Permacultuur moestuין de Groene Mus*).
4. Nineteen high school students (and their professor) from the nearby *Nova College*, (a programme geared towards integrating high school aged newcomers to the Netherlands into the Dutch educational system) participate in *Foodscape Schilderswijk* within the context of their biology class. This group is quite adept, able to carry out the tasks of orchard bed setup and maintenance independently after instruction. Whether this is due to the formal nature of their engagement or it is a coincidence of their individual intelligence and history remains unclear. The *Nova College* students prove that it is possible to develop educational modules to teach permaculture and to address the subject of (public space) urban agriculture in a trans-disciplinary manner.

5. A group of gardeners from the municipality's Department of Public Greens collaborates with *Foodscape Schilderswijk* on a professional level and regularly provides the project with technical assistance.

The *Foodscape Schilderswijk* Spring 2011 programme included a series of (*espalier*) pruning workshops in order to test project assumptions on the level of engagement of the project participants. In hindsight, it is only natural that of the 5 groups, only the high school students, the professionals from the Dept. of Public Greens and a group of permaculture enthusiasts participated in the workshops.

With regard to plantings intended for community use, it is currently in vogue to say that all project initiative should 'come from the neighbours'. One of the lessons of the first year of *Foodscape Schilderswijk* activities proves otherwise. Urban agriculture as defined by this project, *productive landscape architecture in the public space*, is food system infrastructure. As with any other system, its resilience is dependent on the engagement of multiple partners, including but not exclusively neighbours participating in their free time. 'Low-dynamic plantings' like fruit trees and perennial herbs that do not require the continual nurturing of say, a vegetable garden, have the drawback that participants that are not formally engaged (e.g. high school biology class) can lose interest. Nevertheless, the bits of public space that constitute the *Foodscape Schilderswijk* project locations have never received as much traffic or attention by so many disparate groups as they do now. The current strategy of hyper-programming (stacking) (Mollison, 1988; Whitefield, 2004) participants with different levels of engagement appears to be effective in developing a base to ensure project continuity and broad community engagement.

DIY Mmmuseum of Oven Typologies (DIYMOT) (piloted June 2010; Solomon, 2010b)

According to the Urbaniahoeve vision, a successfully networked urban agriculture depends on, and is co-located with thoughtful public space programming stocked with (playful) food-system infrastructure. The *DIY Mmmuseum of Oven Typologies (DIYMOT)* is a platform for public space cooking under the guise of community oven building. The *DIYMOT* was successfully piloted at the *Sloterplas Festival* in Amsterdam, a large-scale community event on and around the banks of the Slotterplas (lake) in June 2010. The pilot demonstrated that at the very least, neighbourhood children would show an interest and auto-didactically develop cooking skills by using the ovens. On the island where the *DIYMOT* was installed, participating children became so absorbed in their newly assumed roles as assistant chefs that they refused to return home with their parents until they were done preparing the on-site dinner (for 64 guests). The lesson of this project anecdote may be that domestic disobedience is a small price to pay for adequate food-system infrastructure.

Ovens made of tamped earth, underground ovens, solar ovens made from wasted umbrellas and/or pizza boxes, the *DIYMOT* is a collection of manuals and materials with which people can build actual working ovens (Figure 3; Alexander et al., 1977). As of this writing, the *DIYMOT* is negotiating placement in three locations in Amsterdam Nieuw West that will share the project development costs and subsequent programming; a nature park with a focus on energy use, a local build-your-own fort playground, and (abandoned) building sites that, due to the current

financial transformation may remain unbuilt for the foreseeable future. In its 2011 planning, Urbaniahoeve has designed a full year's programme that uses the various oven installations and kitchen kit in monthly activities with a strategic selection of local groups. Classes from nearby schools, women's groups, religious organisations, caterers, cooking clubs, illegal restaurants, and foragers unions will each be invited to co-develop the oven platform in the interest of spreading the word that the local public space now includes accessible self-built cooking infrastructure.

Figure 3. *DIY Mmmuseum of Oven Typologies* participants play with the tamped earth oven during the *Sloterplas Festival Art at the Pool* manifestation. The kids independently prepared *tamago*, a Japanese omelette as one of the courses of the *diner ambulant*.

All that Rot!: festive fermentation & community food preservation skills
(###jaar?ongoing; Solomon 2010c)

Community food production makes fresh fruit and vegetables available to urban populations. But without planning and preservation the gluts of local food it can produce will go uneaten, becoming a source of food waste not unlike we find in our supermarkets. Resilient urban agriculture values enhanced (cooking) skills to preserve summer's harvest throughout the winter and beyond the Hungry Gap (Astyk, 2008; Katz, 2006). Urbaniahoeve's *All that Rot!* celebrates the culture of community food preservation by tapping the technology and traditions of lacto-fermentation (Figure 4).

Figure 4. Making sauerkraut as part of the 2010 Makers Festival. Workshop held with gardeners from *de Groene Vaart*, a women's gardening group. Urbaniahoeve initiated the *All that Rot!* workshop to celebrate the traditions of garden-related food preservation.

Reigning in the transformative tendencies of naturally occurring lactobacilli, fermentation turns cabbage into powerful sauerkraut, a pro-biotic (living) food that gives the local gut biotope and immune system, an uplifting kick. Eaten as part of a seasonal diet, the lacto-bacilli give a nutritional boost just when the body needs it most, at the point when fresh vegetables become absent from the Winter table. The fermentation process requires neither gas nor electricity when salt and anaerobic conditions bring forth a nutritive force by which sauerkraut's raw brother pales anaemic in comparison (Katz, 2003).

In 2010 Urbaniahoeve organised a series of fermentation workshops with *Vrouw & Vaart*, an Amsterdam Nieuw West women's development centre (that cultivates an on-site permaculture garden). *All that rot!* workshops educated the participants about the techniques of sauerkraut and kimchi (Yoon, 2005), as well as brewing kombucha and kefir (Katz, 2003). The workshops proved that this urban agriculture skill set can be easily and enthusiastically adopted.

#. Urbaniahoeve planting typologies – now in development

Collaboration protocol and methodology

Because Urbaniahoeve project locations (i.e. *Foodscape Schilderswijk*) access public space, a good working relationship with the municipality's Dept. of Public Greens is essential to project success. In order to facilitate common ground between the two organisations and to make the project expectations lucid, Urbaniahoeve forged a protocol. Listed below are the most cogent points.

Foodscape Schilderswijk develops community-maintained, visually resplendent edible landscaping and chooses and develops project locations on the basis of the following principles:

- work with existing green and social infrastructure, no tabula rasa situations;
- focus on activating under programmed 'visual greens' as locations for productive landscapes;
- connect project locations to form a contiguous biotope;
- stack programming on single locations;
- work in phases;
- work with non-dynamic (low maintenance, resilient, and perennial) plantings;
- incorporate the techniques and design principles of permaculture;
- develop programming that supports community project maintenance;
- strive for project continuity;
- keep the ground covered with planting as much as is seasonally possible;
- prioritise urban soil fertility;
- generate socially thriving and resilient food producing urban biotopes.

The protocol goes on to further describe workflows and responsibilities, timelines and moments of project evaluation and delivery.

One of Urbaniahoeve's goals for *Foodscape Schilderswijk* is that all future green space plantings in the borough become both edible and biotope enhancing (Alexander et al., 1977). Urbaniahoeve's partner at the Dept. of Public Greens agreed that however aspirational, budgetary constraints make this goal unachievable. Projects like *Foodscape Schilderswijk* have the potential to connect community-supported edible landscaping with works carried out by the Dept. of Public Greens to achieve project goals. *Foodscape Schilderswijk* is working on an indexation of its planting modules that corresponds to the technical requirements of the Dept. of Public Greens such that these modules become replicable throughout the Schilderswijk and later, by other departments in other boroughs.

In order to develop working models for low-maintenance community food producing biotopes, Urbaniahoeve's foodscapes focus on using perennial and non-dynamic plants that require minimal care, that prioritise soil fertility and are planted systematically according to the plant guilds.

Freestanding *Espalier* fruit beds

Urbaniahoeve is developing *espalier* fruit beds as food producing, biotope enriching, living screens and to optimise the use of vertical space. *Espalier* is the agricultural practice of training, pruning, and tying branches to grow in relatively flat planes, frequently in formal patterns. Aside from its aesthetic impact the technique is good for fruit production and is part of the Dutch (horti)cultural heritage (Kuitert and

Freriks, 1994). *Foodscape Schilderswijk* fruit beds intercrop apples, pears, plums and cherries with herbs, flowers, and bulbs in order to create multi-layered, productive planting beds that will in 4-5 years be easily maintainable and largely self-sustaining (Figure 5). A series of pruning workshops, intended to increase project engagement were successful in identifying specific local groups that embrace learning advanced orchard skills.

Figure 5. Community Fruit Orchard located in the Westenberg Hof in the Hague borough Schilderswijk planted with freestanding *espalier* fruit trees.

Asteraceae areas

Experimental beds of artichokes alongside other asteraceae family perennials, the varieties that include echinacea, stevia, and self-seeding annuals like sunflowers and chamomile, have been chosen for their qualities as a food source, as cut flowers, and for their use in traditional medicine. The aesthetic of the asteraceae areas, is inspired by the visually attractive 'natural style' beds of Dutch Wave gardeners Henk Gerritsen and Anton Schlepers masters of bio-diversity (Gerritsen, 2008) (Oudolf et al., 2009).

Wildly Attractive Edges

Lacking spatial programming and enclosed by 3-storey apartment blocks, the interior gardens of the Westenberg and Wellington Hof's are monocultures of grass and large, rarely pruned trees. As of April 2011, the frequency of finding garbage thrown in the enclosed gardens had significantly decreased and the downstairs neighbours perceive the problem to be solved by the orchard beds.

Urbaniahoeve is experimenting with a planting typology that will further fill the edges of the enclosed spaces. Bushy, blossoming plants will at the very least, provide an inexpensive experiment in social control through landscape architecture (Alexander et al 1977). In terms of the garden biotope, the *Buddleia davidii*, *Sambuca nigra* (elder), self-seeding borage, will certainly provide voluminous cover and a source of nectar for the pollinators of the nearby fruit trees, and an invasive patch of comfrey can aside from its qualities as a bee attractor offer 'live mulch' to the beds. Suffering drought in 2011, planting the *Wildly Attractive Edges* typology has been rescheduled until autumn so that seasonal rains can at least help the young bushes to establish themselves.

Instead of Grass (autumn 2011)

The vast lawns of the interior gardens as well as grassy strips along the edges of the streets require expensive maintenance eight months per year, offer precious little to the biotope, both above and below the ground. Additionally, of those affected by hay fever, 90% are allergic to this form of ground cover (Ogren, 2008). In autumn 2011, the edges of the *espalier* fruit beds, will be seeded with winter-hardy clovers that in the spring require less frequent mowing, provide a source of nectar whilst slowly ameliorating the soil and developing a fragrant, tread-worthy matt in the process.

Herb Carpet (autumn 2011)

In a highly paved area at the corner of Westenberg and Wellington streets a border around the tree planter will provide an experimental location for a workshop with local children and professional gardeners to make an *herb carpet* (Alexander et al., 1977). Semi-open paving and open-work tiles will be planted with low-lying varieties of creeping herbs like thyme, oregano, and chamomile (Figure 6). One of the many aims is to discover the sturdiness and rate of water absorption of the *herb carpet*, to assess whether this typology is suitable for higher foot traffic and whether it can replace traditional paving. Although herbs grown under such conditions may not have value as food, they remain aromatic when tread upon, set an aesthetic tone, and contribute to the contiguous biotope both above and below the soil's surface.

Figure 30.6. Schilderswijk Chamomile Paving, wild chamomile bulging out of paving exemplifies the possibility for natural forms of paving reduction as with variations on Urbaniahoeve planting typologies, *Instead Of Grass* and *Herb Carpet*.

Foraging Forest

In a shady alcove of the Wellington Hof, *Foodscape Schilderswijk* child participants planted berries, currants, wild garlic (ramps), and chives to develop a natural-style foraging forest (Figure 7). Having recently discovered that the Dept. of Public Greens uses the location to store branches pruned from the flanking sycamores, a portion of the area will be converted to host a mushroom growing workshop in the shadiest corner. Neighbourhood children will enjoy inoculating the logs with oyster mushroom and shitake spores and learning about the role of mycelia in an inner-city forest garden (Kellogg and Pettigrew, 2008).

Figure 7. *Forager Forest*, *Foodscape Schilderswijk* participants plant a *foraging forest* with berries, currants, and ramps.

Tree planter nurseries

In the Schilderswijk the tree planters that line the streets have the potential to link the gardens into a continuous productive space, as informal nurseries for the larger planting spaces elsewhere. Planted with self-seeding and perennial nectar-rich flowers and herbs, tree planters mini-gardens have the power to seduce the sceptical, set the tone for the public space (Alexander et al., 1977), de-fragment the biotope, reduce litter, and initiate a phased reduction of non-absorbent paving in the neighbourhood.

Tree planter mini-gardens

Initially an experiment in testing the neighbourhood's tolerance of self-maintained edible landscaping, local children planted two tree planters on Wellington street, one with a selection of Mediterranean kitchen herbs and the other with rhubarb and strawberry (Figure 8; Alexander et al., 1977). One year after planting, both planters remain well maintained, vandalism-free, watered, free of litter, and the locals harvest the public space produce for home use.

Figure 8. Tree planter mini-gardens.

#. Are artists and designers expanding urban agriculture?

Considering the potential of projects initiated by cultural sector producers like Urbaniahoeve, is at the very least, worthy of specific research with regard to the diversity of its output formats; community produced edible landscape architecture, hyper-programming/multiple use of one location, and community up-skilling programmes. Urban agriculture implemented by artists and designers as part of a social design or art in the public space praxis, provides a platform for rapid experimentation and action research that may be better at expanding the range of UA working models than projects initiated by the agricultural or other sectors. This statement is based upon this author's observation and experience from her own practice and involvement in UA projects of various scale since 2006, from extensive contact with UA project initiators in other sectors, as well as contact with local farmers bordering Amsterdam Nieuw West.

Personal/professional autonomy and flexibility of practice

Art and design education is centred on developing a signature approach to research, methodology, project building, and developing a fingerprint with regard to material output. In the context of expanding urban agriculture, this means a playful approach towards project production, agile prototyping, and unique formats (Jencks and Silver, 1972).

It is valuable to mention that art and design 'products' are rarely subjected to the rules, conventions, and regulations of agricultural or industrial food production. Artists and designers produce experiments and prototypes within a very free context and cultural tradition. As an anecdote, the author has designed and implemented concept restaurants as art installations in musea, developed 'kitchen playgrounds' and run 'free kitchens' from market surplus that produced food, but that were never subject to prohibitive hygiene laws and conventions. Officially, the product was not 'food', but a 'art' or 'design'. The fact that guests could put this product in their mouths, chew, swallow and digest, was of no concern to anyone. Because of this, the project focus remained strictly on the array of food one could make from market surplus (a project in collaboration with van Heeswijk and Kaspori, called *Lucky Mi Fortune Cooking*; Van Heeswijk et al., 2007), or if it is possible to run a restaurant that serves a menu of food grown without land or light (Figure 9a,b; Solomon, 2006).

Figure 9a,b. Sprout Restaurant installation at Mediamatic Amsterdam: food production without land or water.

Unusual skill sets

Artists and designers routinely at work in the public domain maintain broad skill sets and can engage a wide network of expertise. They are comfortable working in a trans-disciplinary setting with a multi-disciplinary team. The knowledge that practitioners of projects such as *Foodscape Schilderswijk*, *The Cook*, *The Farmer*, *His Wife and Their Neighbour* (Wilde Westen and Potrc, 2009), or the Freehouse Collective's *Market of Tomorrow* (Figure 10; Van Heeswijk and Kaspori, 2008) encompass, would likely yield an astonishing Venn diagram. In the case of urban agriculture, aside from cultural and historical knowledge of the location and its socio-political context, the contours of their expertise may extend from culinary history,

high-level cooking and food preservation skills, material and physical infrastructure design, to significant experience with landscape architecture, organic gardening, and permaculture.

##Figure 10. *Soep Pop*, urban intervention Soup Doll, during an iteration of the Freehouse Collective's *Market of Tomorrow*, selling vegetables in doll-form in collaboration with Afrikaander-market grocer.

Tradition of working in the public space

Since the 'de-materialisation of art' of the 1960s and '70s, the public space is considered an acceptable artistic subject and/or platform (Lippard, 1973). Politically engaged artists produce works of urban and social critique, addressing topics such as land/property use and (social) agency. This cultural heritage informs artists' work in the public domain today. Additionally, a focus on public engagement or 'agency' can result in projects that ultimately provide models for municipal infrastructure or that actually produce urban regeneration (Alexander, 1979), such as artist collective *Freehouse* in Rotterdam, who have been implementing a regeneration project in the Afrikaanderwijk since 2006.

Opportunities in public space

The urban regeneration of locations like the Hague's Schilderswijk occurred in part as a reaction to perceived problems of the use of public space, (though strangely not of its design). Whether the public spaces of the newly regenerated locations are considered to be well designed or not, some pitfalls remain (Jacobs 1993):

- visual greens are still implemented in their re-design;
- the visual greens are solely held and maintained by municipal organisations and are rarely programmed with activity;
- the visual greens are planted with ornamental plants, in deference to the architecture, or in a defensive style (providing barriers);

Even the most non-critical of analysis yields an assertion that such spaces are not examples of a resilient system design for the public space (Thackara, 2005).

Urbaniahoeve's alternative approach to public space through projects such as *Foodscape Schilderswijk* and *DIYMOT* focus on 'site repair' (Alexander et al., 1977), agency, reactivation, and re-appropriation through (hyper) programming. Although it is too early to determine if a layered approach to i.e., maintaining the orchards or contiguous biotope will become and remain a success, the activities and interventions have at the very least centred attention on these locations by a wider group of stakeholders than has ever occurred in the past. Time will tell if the combination of low-dynamic productive landscape architecture and stacked programming is the way to build a *foodscape* intended for urban agriculture, but already the orchards offer a visual improvement. Time will tell if parks programmed with playful public cooking infrastructure, and organised with multi-stakeholder involvement is the way to positively activate the public space (while supporting local urban agriculture).

Continued engagement by municipal agencies such as the Dept. of Public Greens, and involvement by local housing corporations, in addition to neighbourhood and local institutional participation, all point to a positive result. Urbaniahoeve sees shared responsibility for public space maintenance, particularly if it accesses 'unconventional' groups for this role, as a strategic intervention. Urbaniahoeve sees all physical space that is not specifically private as having potential for integration into the *foodscape*, and as a platform for activation limited only by imagination and passion.

#. Conclusions

Although the recent rise in popularity of community gardens and the number of small-scale practitioners is increasing, to actually thrive, a viable culture for urban agriculture will require a critical mass before it can achieve a palpable positive impact. This paper addresses a range of possible urban agriculture (UA) formats and also the skills and methodologies of its cultural sector practitioners. However, support and at the very least, devoted cooperation from all civic levels will be a requirement for coherent implementation.

The term 'urban agriculture' may well be comprised of the words 'urban' and 'agriculture', but the heritage of typically centralist urban planning and agriculture, as many practitioners will agree, is proving insufficient in dealing with the issues surrounding its development, innovation, and ultimately its deployment. In expanding UA beyond the traditional context of farming it would be wise to include the heritage of conceptual art practice of the 1960s and '70s in which land use critique (Jencks and Silver, 1972), the notion of public space re-appropriation, and citizen agency are understood in terms of a social practice. Benefits of expanding UA by cultural sector initiators include the effects of their professional autonomy, their flexibility with regard to project implementation, and the fact that they are frequently unencumbered by restrictions that negatively impact the production of working models and prototypes. The broad skill sets and range of expertise that artists and designers typically bring to the table supports a culture of plural solutions.

Expanding models of urban agriculture will necessarily address the many types of existing urban spatial typologies, e.g. visual greens, public space locations of denied access, restricted locations already in use and misused by the surrounding public. An additional boost in knowledge is necessary to grow and nurture local actors that will ultimately champion the resulting food-related activities in their communities after project delivery. Flexible civic organisations and schools that can easily see the value of an edible landscape architecture as an adaptable platform, can add an additional layer of programming to locations already in use by neighbourhood gardeners. An expanded vision of urban agriculture can engender a sense of agency in locals accessing the public space for community food (production), and can spawn cooperation between civic agencies and local practitioners. Socially engaged neighbourhoods, in the process of developing consensus about the use of their public space by working in it together, will inadvertently increase food autonomy in their area.

An expanded urban agriculture will include practitioners with a heritage of working within the realm of the social, to reconfigure the city for optimal public (food)

production and access. Like any resilient (eco)system, the evolution of urban agriculture will rely on a plurality of locations, of programmes, and of practice.

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