



Theory

Continuous Productive Urban Landscapes as design generator for community upliftment

In nature, as an organism evolves it increases in complexity and it also becomes a more compact or miniaturized system. Similarly a city should function as a living system. Arcology, architecture and ecology as one integral process, is capable of demonstrating positive response to the many problems of urban civilization, population, pollution, energy and natural resource depletion, food scarcity and quality of life." (Cosanti foundation 2009)

The appearance of our cities could be forever changed by overlaying productive urban landscapes with the concept of continuous landscapes. This concept proposes a whole new urban design strategy. "Continuous Productive Urban Landscapes (CPULs) will be open landscapes productive in economical and sociological and environmental terms. They will be placed within an urban-scale landscape concept offering the host city a variety of lifestyle advantages and few, if any, unsustainable drawbacks. CPULs will be city-transversing open spaces running continuously through the built environment, thereby connecting all kinds of existing inner-city open spaces and relating to the surrounding rural area. Vegetation, air, the horizon, as well as people, will be able to flow in and out of the city. Partially, the city will become open and wild." (Viljoen 2005:11)

By existing alongside a range of urban open spaces, the productive urban landscape will compliment the space and add a new sustainable component to the city. Productive urban landscapes can offer space for leisure, recreation be the urban green lungs of the city. Most uniquely, it will provide space for urban agriculture.

The agricultural fields will range from small vegetable gardens to large multi-crop fields within or outside the productive urban landscape. In this way urban parks could become wilder and healthier by allocating parts for urban agriculture. (Viljoen 2005:12)



001 (Viljoen 2005: 241)
Carrot and the city: The concept of CPULs

Productive Urban Landscapes will need space by reclaiming or recycling land. "Urban agriculture, the proposed productive element of CPULs, could take on any shape and occupy virtually any space in the city, e.g. big, small, horizontal, sloped, vertical, rectangular, triangular, irregular, on brownfield sites, on Greenfield sites, in parks, on reclaimed roads, on spacious planes or squeezed in corners..." (Viljoen 2005:15)

“Food growing projects can act as a focus for the community to come together, generate a sense of 'can-do', and also help to create sense of local distinctiveness, a sense that each particular place, however ordinary, is unique and has value” (Garnett 1996)

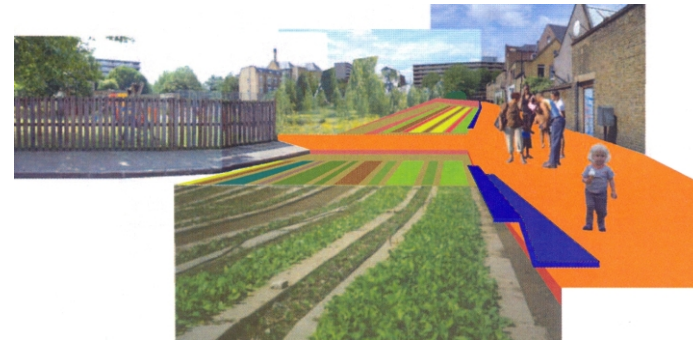
By introducing urban agriculture to our cities, abandoned and disused sites may be activated and used in more environmental productive ways. Productive urban landscapes will encourage movement, connect private and public places and create paths overlooking the horizon. The associated sounds, smells and views of urban agriculture will make the environment comprehensible and present a notion of the countryside to the city dweller. (Viljoen 2005:246)

Apart from providing the amount of exercise necessary to keep healthy, horticulture and gardening activities have always been recognised for their value in providing stress relieve and treatment to people with mental illness. In a study undertaken by the University of Florida, it is suggested that just by walking around a botanical garden, stress levels can be reduced. (Viljoen 2005:60)

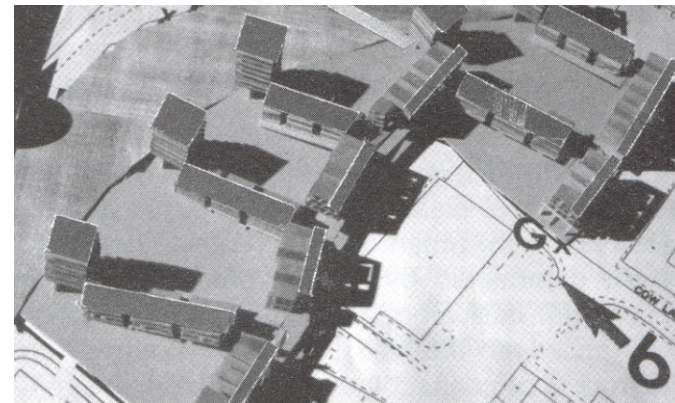
“People feel comfortable when they have access to the countryside, experience the open fields and agriculture and have access to wild plants and birds and animals. For this reason, cities must have boundaries with the countryside near every point. At the same time, a city becomes good for life only when it contains a great density of interactions among people and work, and different ways of life.” (Alexander et al 1977:22)

“Many people want to live in the country; and they also want to be close to a large city. But it is geometrically impossible to have thousands of small farms, within minutes of a major city centre. To live well in the country, you must have a reasonable piece of land of your own large enough for horses, cows, chickens, an orchard and you must have immediate access to continuous open countryside, as far as the eye can see. To have quick access to the city, you must live on a road, within a few minutes' drive from the city centres, and with a bus line outside your door.” (Alexander et al 1977:30)

Although urban agricultural activities are considered valid land-use functions, few studies have been done to examine the nature and integration of agriculture into urban land-use frameworks. Land-use policies must be studied in order to formulate lessons of good practice. Because of their higher financial return, productive urban landscapes will always face stiff competition from other land-use functions like housing, commerce and industry. Fresh research is needed in order to publicise more literature supporting the case for urban agriculture. (Viljoen 2005:62)



002 (Viljoen 2005: 252)
Urban edge buildings overlooking a productive landscape



003 (Viljoen 2005: 116)
Movement and housing with urban agriculture

“The implementation of this pattern requires new policies of three different kinds. With respect to the farmland, there must be policies encouraging the reconstruction of small farms, farms that fit the one-mile bands of country land. Second, there must be policies which contain the city’s tendency to scatter in every direction. And third, the countryside must be truly public, so that people can establish contact with even those parts of the land that are under private cultivation.” (Alexander et al 1977:24)

There is increased international attention from development organisations to make use of urban agriculture to relieve poverty and provide food security in Africa. South Africa's output in terms of urban agricultural research is likely to increase due to an increase in poverty, positive donor support and a research base in universities. Due to the collapse of many formal urban economies in Africa and the impact of economic adjustment programmes, many people had to seek alternative ways of survival. (Viljoen 2005:194)

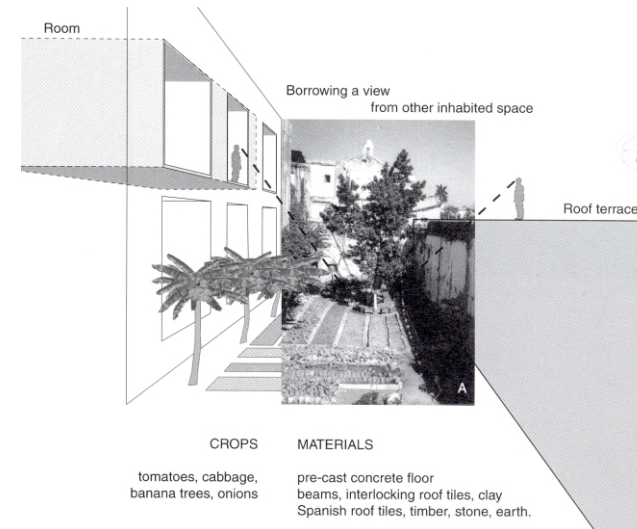
However, integration is undermined because local policy makers are still unconvinced as to the benefits that may arise. Another obstacle is the contradictory and often conflicting responses among politicians, technical professionals and local authority departments. Tension among ministries of agriculture and local government reinforce these policy dilemmas. Conflict related to urban agricultural activities versus other land uses also manifest in social tension, the destruction of property and physical confrontations. If horticultural farming in Africa is adopted on a wider scale, it would improve the productivity of the land and almost certainly diffuse some of these conflicts. (Viljoen 2005:197)

Even though the architectural design of urban agricultural plots has been part of the government manuals in the United Kingdom since 1930, urban farmers are still sculpting their own culture into the urban fabric and disrupt some of the lines laid down. Before any design principles can be applied, it is necessary to understand the part urban agriculture plays in the lives of urban farmers. (Viljoen 2005:130)

“Small, grass roots movements, unpopular at their inception, play a vital role in society. They provide a critical opposition to established ideas; their presence is a direct correlate of the right to free speech; a basic part of the self-regulation of a successful society, which will generate counter movements whenever things get off the track. Such movements need a place to manifest themselves, in a way which puts their ideas directly into the public domain.” (Alexander et al 1977:243)

Because productive urban land is often publicly owned, there is a contradiction between openness and security due to theft and vandalism. Right of access to gardening lots can often be restricted to a privileged few, who transforms the area into semi-private public spaces. In this the designer has a vital role to play in exposing the agricultural fields to the public's gaze. (Viljoen 2005:130)

“The space must be highly visible. It must be built in a way which lets the group get their ideas across, to people on the street.” (Alexander et al 1977:244)



004 (Viljoen 2005: 163)
Agricultural outdoor classroom for school children in Habana. (Cuba)

Although there is a need for caution when exposing urban agricultural activities to the architectural profession, the architect's knowledge of materials and space-use can be translated to maximise the potential of the agricultural activities. Allotments can be articulated with other built structures and space planning principles to develop its full potential. This can only be accomplished by working alongside the urban farmers and keeping them in mind. Allotments can also be integrated with playgrounds and other green spaces where children can play while the parents cultivate their crops. Some details of the design can be left open as opportunities for people to express their creativity and to create a sense of ownership among the community. (Viljoen 2005:131)

This dissertation attempts to use Continuous Productive Urban Landscapes along with the need for poverty alleviation and community upliftment as a design generator with regards to public urban space.

Unfortunately, without the necessary support from Government, these projects are more likely to fail. Ongoing support with sustainable economical systems are needed to transform our cities. These elements form the key components to upliftment initiatives and also has a vital role to play in social housing projects.

In 2007 Government invested millions of rands into agricultural projects in the Underberg area of the Lowveld. Today, almost all of these projects have been abandoned and their empty facilities tower out of the African bush. Desiree Rorke, a journalist for the 'Lowvelder' Newspaper in Nelspruit, visited some of the projects. (Rorke 2009:8)

The Department of Agriculture and Land Administration funded the Jabulani Maswati Horticulture Project with R15 million to put up structures, debush, fence and plough 250 hectares of land. Apart from acquiring new tractors and other equipment, a drip-irrigation system was also installed. Peppers, Butternuts, Watermelons, Maize and Pomegranates were planted. Sadly today, the project faces total collapse without serious intervention. The last wages was paid four months ago and only a handful of community members still come to work.

Sibongile Dlamini is one of the local women that still show up in the hope of putting in a day's work. According to Sibongile, funding for the project quickly dried up. "There are no seeds for planting or money to fix broken equipment. Electricity supply is a serious challenge, as the installed transformer doesn't have the capacity to cover the whole area." Although a pack house and a cool storage room are needed, the biggest problem seems to be the lack of a viable marketplace. Presently, the produced vegetables are sold only to community members. (Rorke 2009:8)

At the Sizolwethy Poultry Project, two state-of-the-art mass-production poultry houses were constructed without water or electricity supply. The poultry houses were constructed at a cost of R2.8 million. One house is incomplete while only a small part of the other is in use. In 2007, the community members were promised a four-ton truck which they never received. The poultry project also lacks a sufficient marketplace and currently the chickens are only sold to the community. (Rorke 2009:8)

According to the farmers, there is a lack of adequate government support for these projects. Without the necessary skills training, guidance and financial aid these facilities will only stand as monuments to remind Government where it failed (Rorke 2009:8)



005 (Rorke 2009: 8)
The Jabulani Maswati Horticulture Project