

The graphic features a background of a faded, light grey urban map with street grids and building footprints. Overlaid on this is a network of thin, intersecting lines in various colors (green, red, blue, yellow). A dense cluster of small, stylized flowers and leaves in muted colors (brown, grey, orange) is centered in the middle. The title 'urban growth' is written in a large, elegant, brown script font, with the word 'urban' positioned above 'growth'.

# urban growth

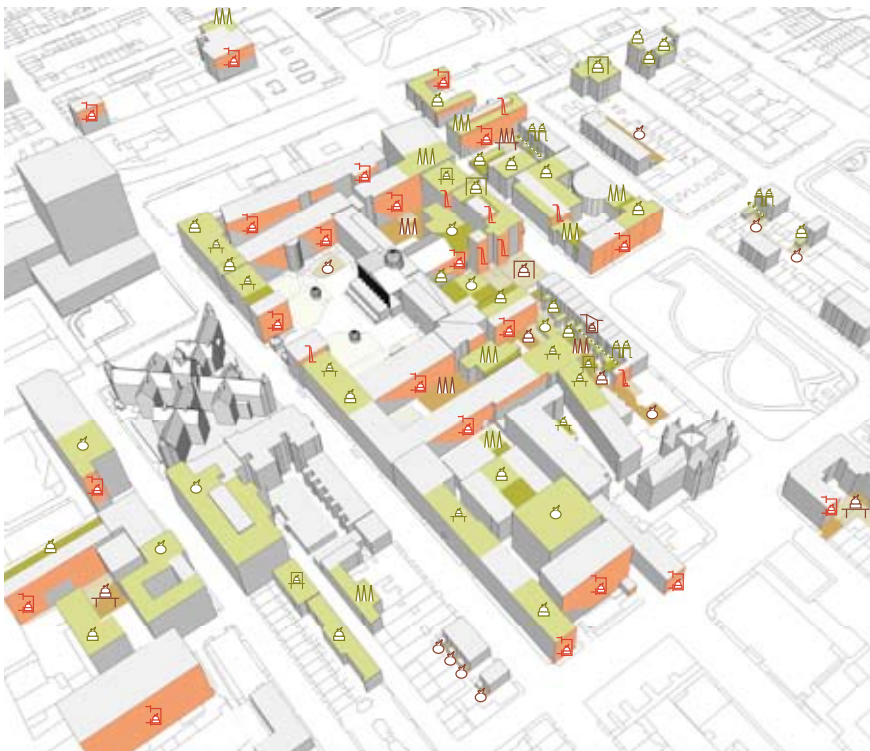
## URBAN GROWTH

An exploration of agriculture in urban design, illustrated by a provocative project in central London

### Who we are

Nicolas Rougé is a qualified engineer, urban designer and planner. He studied in Paris (Ecole Centrale, Sciences Po) and London (the Bartlett School of Architecture). After working for 5 years as a project manager and consultant on the regeneration of the former Renault plants and the 'île Seguin' in Boulogne-Billancourt near Paris, he is now director in the architecture and urban design office of Christian Devillers in Paris.

Architect and urban designer, Anna Gasco studied in Brussels (Institut supérieur d'architecture St Luc) and London (the Bartlett School of Architecture) where she now works as an urban designer for SOM (Skidmore, Owings & Merrill) having previously worked for 3 years as Project Architect in the office Archi+I in Brussels.



### What we did

Throughout our year at the Bartlett School of Architecture, where we completed an MSc in Urban Design in 2006 with distinction, we chose to explore the topic of urban agriculture (UA) and its relationship with urban design. Our final report is the culmination of this work. This is what we would like to present to you today: we believe this commended work might be of some interest for a broad audience and might be published in some form or another.

The report is divided into two main sections:

- The first section is a theoretical exploration of urban agriculture as it is today and as it could (and should) be implemented in urban design projects. We tried to answer this paradoxical question: why, as urban designers, should we care about agriculture? We made clear that agriculture and the relationship between city and country underpin most urban utopias of the 20th century. Ultimately, we aimed to demonstrate that today an increasing awareness of sustainability and environmental issues could pave the way for new forms of urban agriculture, using innovative technologies or relying on new types of social interactions.

- The second section supports, tests and illustrates this idea through a comprehensive urban design project taking University College London as a stage set. To do so in a most plausible and realistic way, we addressed all the technical, social, economic, cultural and political issues related to UA in detail. We tried to imagine how it could gradually be implemented in real time in the coming months and years. We did this in three steps:

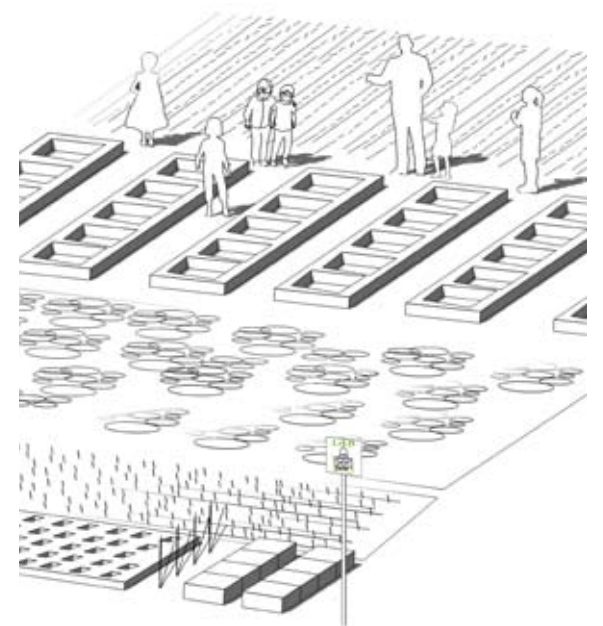
1. the productive lab: an experimentation of UA techniques, architectural devices and social systems based on student and staff involvement;

2. the productive campus: a large-scale and more professional implementation of all successful UA techniques and systems at the scale of the whole campus;



3. the productive city: a spin-off of the UCL experiment at the scale of London, relying mainly on appropriate urban design guidelines and planning policies.

In the report, which amounts to approximately 30,000 words, the main text is supported by 33 summary "boxes/ WINDOWS" which present the study of many existing experiments and summarise all useful theoretical or technical knowledge available to date.





### Why we did it

The Worldwatch Institute estimated in 2002 that "a typical British Sunday dinner (...) travels an average of 24,000 miles from farm to plate". The reasons for this increase in "food miles" are complex, but are mainly due to a "Green Revolution" of farming techniques and to the globalisation of economic exchanges. Unfortunately, this goes with an increasing consumption of energy and release of CO2 into the atmosphere.

The story does not end there. In 2000, the "City Limits" study of London's ecological footprint estimated that the city needs an area which is 293 times its own size (twice the size of the UK) to sustain all its needs. If everyone on Earth used natural resources the same way, we would need three planets! In this footprint, food accounts for 41% percent; 81% of it comes from outside the UK.

Yet, most urban designers and architects do not feel that the issue relates directly to them. They think agriculture is only for agronomists and regional planners to deal with. We tried to demonstrate that they are wrong: they could have a crucial role to play in the near future in finding appropriate ways to reconcile food production and our urban setting.



How to better illustrate this huge design potential than by taking University College London as a test bed? With its 27,000 students and staff, it is a small city within the city. Our project tried to envision the way the campus could gradually be transformed into a productive system, embedding part of the space needed to sustain its own needs for food. We demonstrated that by, creating farmable surfaces on all suitable courtyards, roofs or facades, we could provide up to 12 percent of all students and staff with fresh fruits and vegetables daily.



### What we could now

We think that our work could be of great interest to a wider audience, mainly for urban design and architecture professionals and students:

- As a reference on all theoretical questions related to agriculture and urban design (main topics and challenges, issues, possible solutions...);
- As an overview of former ideas and projects (from Ebenezer Howard's Garden Cities to MVRDV's Pig City);
- As a detailed illustration of what could be done is the near future, through our design project on UCL campus.

This would also certainly interest a broader public interested in sustainability, food issues and the future of our cities.

We noticed that there are currently a lack of publications dealing with agriculture and urban design. Many books or articles deal with urban agriculture but never from a design perspective.

Others deal with urban design and sustainability in general. As far as we know, the only two publications dealing specifically with our topic are:

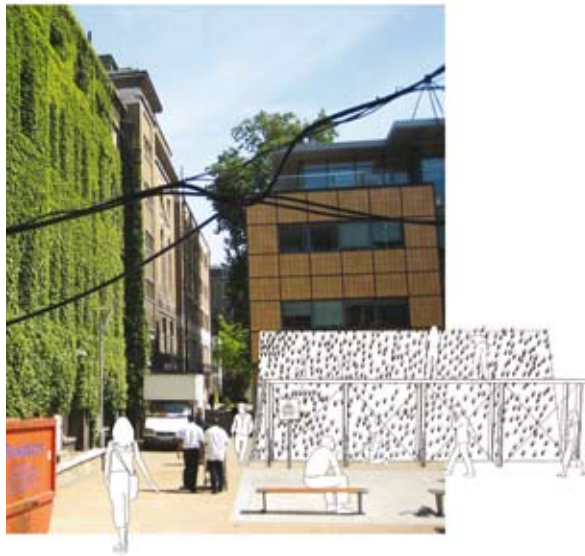
- An issue of Architectural Design (AD) "Food + the City" in May 2005, whose scope is broader than urban farming and includes food consumption and retail;
- A book "Continuous Productive Urban Landscapes (CPULs)" edited by Andre Viljoen (Architectural Press, 2005), which analyses many examples (e.g. Cuba) but does not detail technical issues and leaves only little room to innovative design solutions.

Thus, we propose to author a publication derived from our work and report. This could be an article, a series of articles or a book. Of course, we are aware that, depending on the editorial choices and the length of the publication, we will need to reformat our work and refine or expand some parts of it.

We would also be interested in editing of a more comprehensive, multi-authored publication on agriculture and urban design, using the many contacts we already made during our year at the Bartlett and our many other professional contacts in the world of urban design and architecture.

### Where could I browse the report?

[www.nicolasrouge.com/urbangrowth](http://www.nicolasrouge.com/urbangrowth)



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