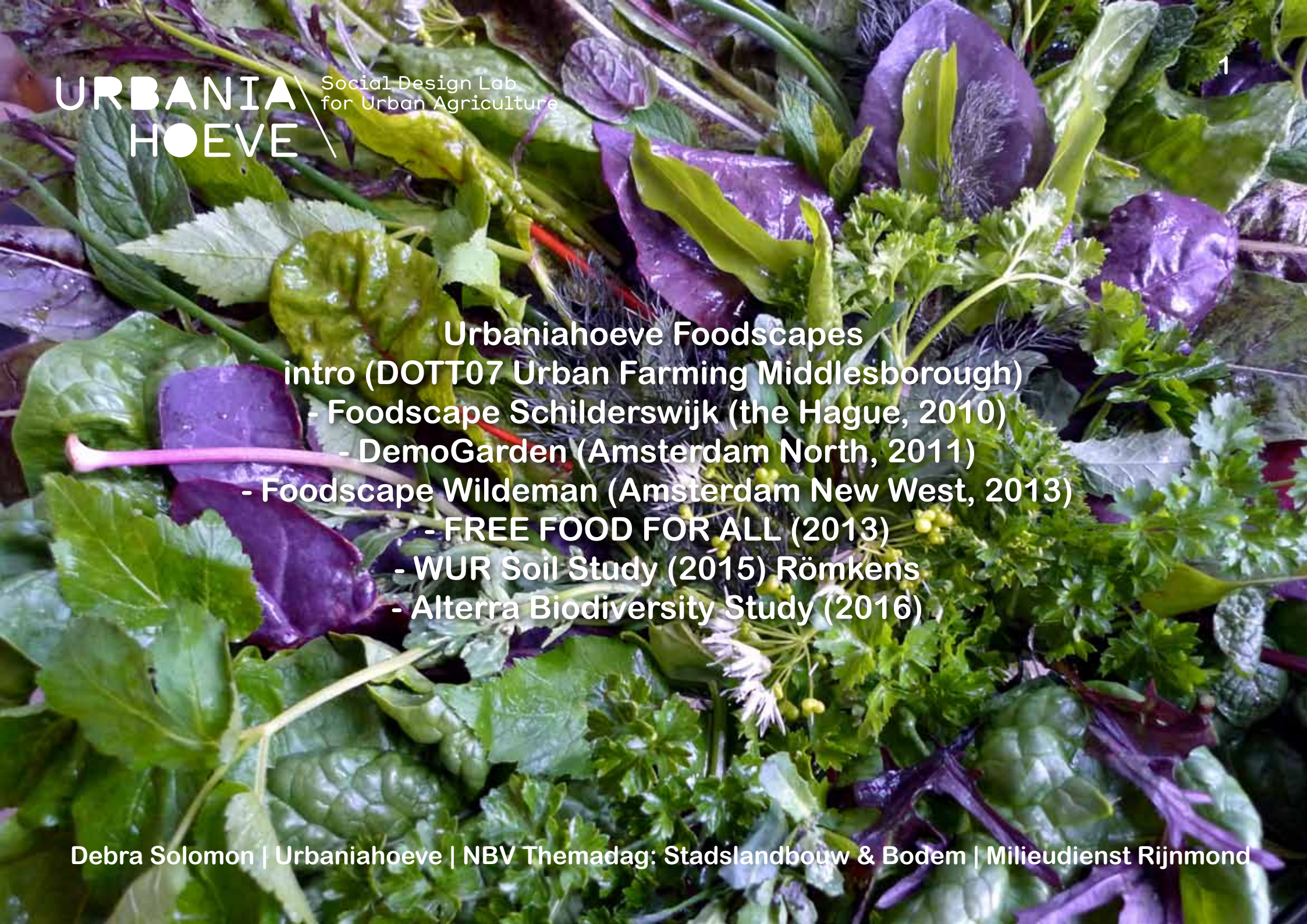
URBANIA HOEVE
Social Design Lab
for Urban Agriculture



Urbaniahoeve Foodscapes

intro (DOTT07 Urban Farming Middlesborough)

- Foodscape Schilderswijk (the Hague, 2010)
- DemoGarden (Amsterdam North, 2011)
- Foodscape Wildeman (Amsterdam New West, 2013)
- FREE FOOD FOR ALL (2013)
- WUR Soil Study (2015) Römkens
- Alterra Biodiversity Study (2016)

Debra Solomon | Urbaniahoeve | NBV Themadag: Stadslandbouw & Bodem | Milieudienst Rijnmond

ESSENTIAL READING:

===>>> VILJOEN, A., (editor) 2005. CPULs – Continuous Productive Urban Landscapes. Architectural Press.

===>>> VILJOEN, A. & BOHN, K. (editors) 2014. SECOND NATURE URBAN AGRICULTURE; Designing Productive Cities. Ten years on from the CPUL City concept. Routledge Press.

ESSENTIAL PROJECT:

===>>> DOTT07 URBAN FARMING PROJECT MIDDLESBROUGH David Barrie, Nina Belk, Debra Solomon, B&V Architects

MORE SPACE WITH LESS SPACE: AN URBAN DESIGN STRATEGY

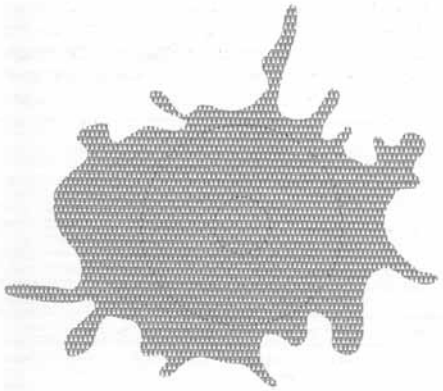


Figure 2.1

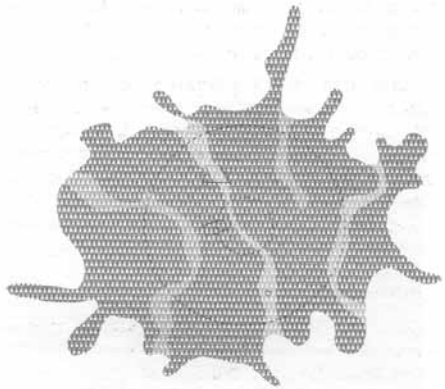


Figure 2.2

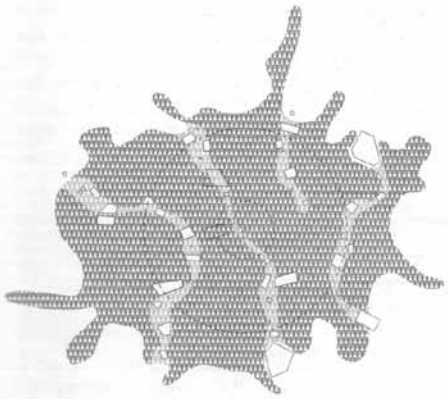


Figure 2.3

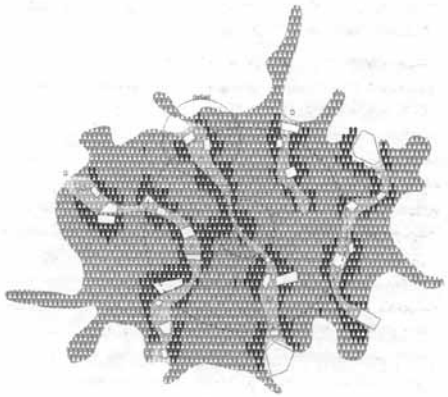
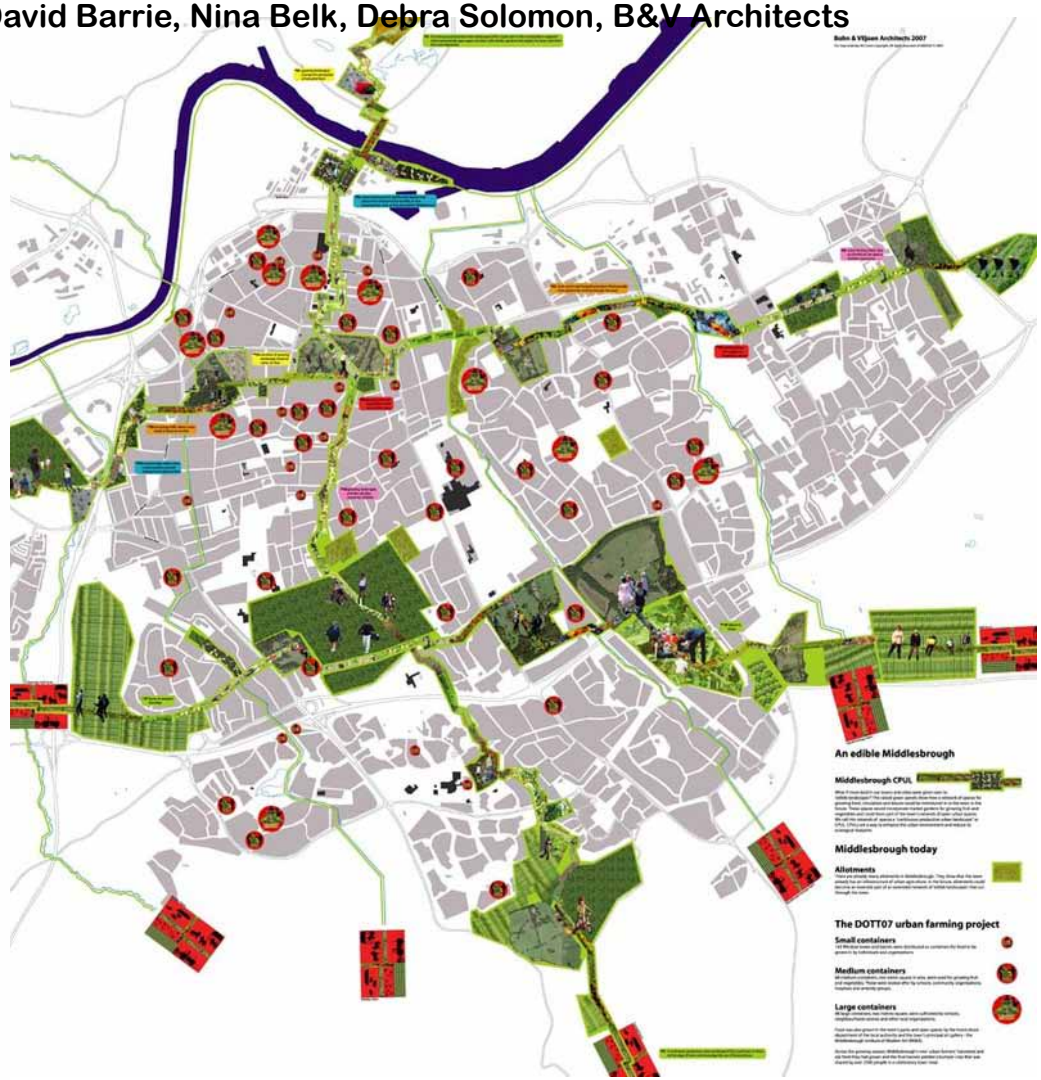


Figure 2.4



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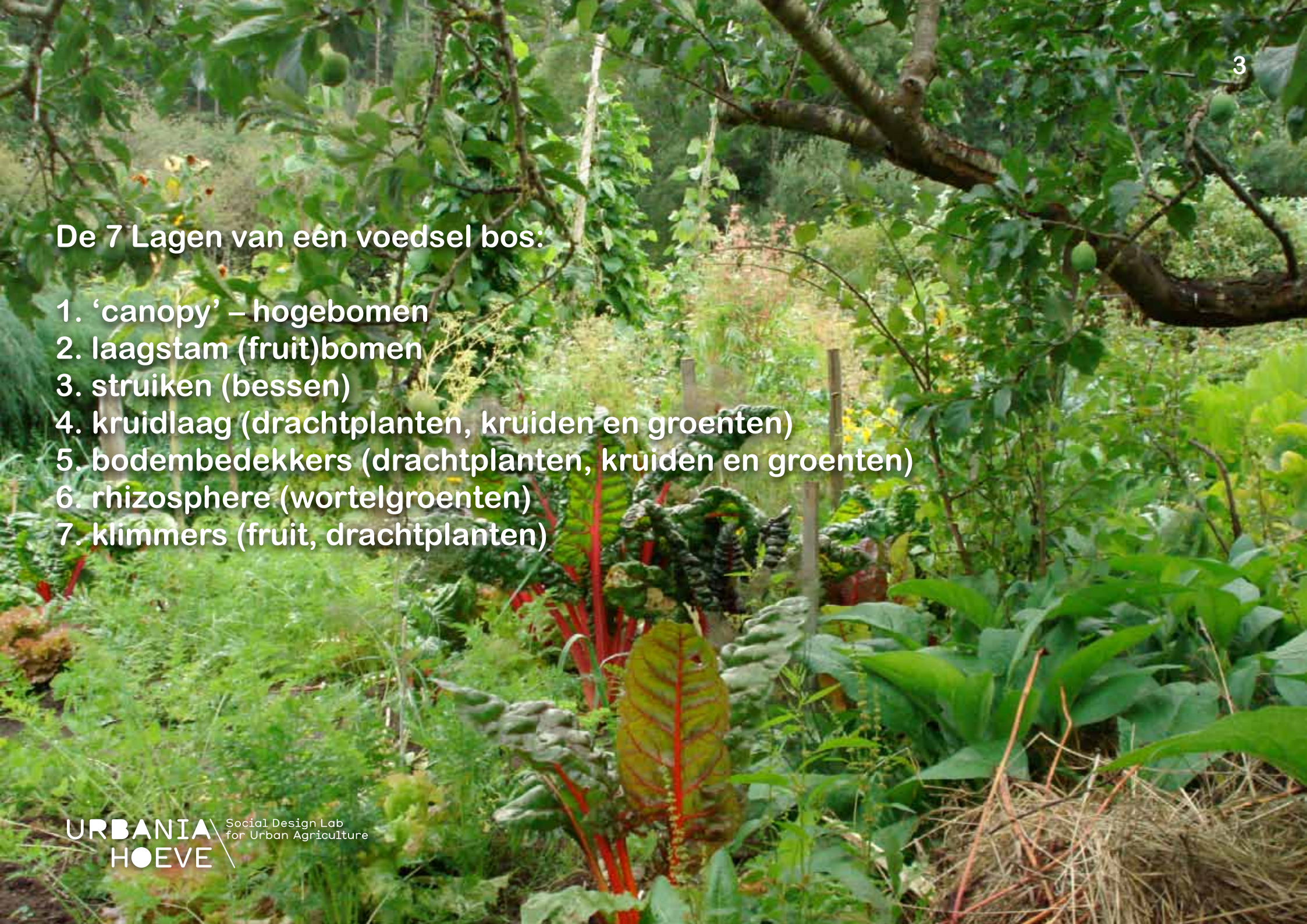
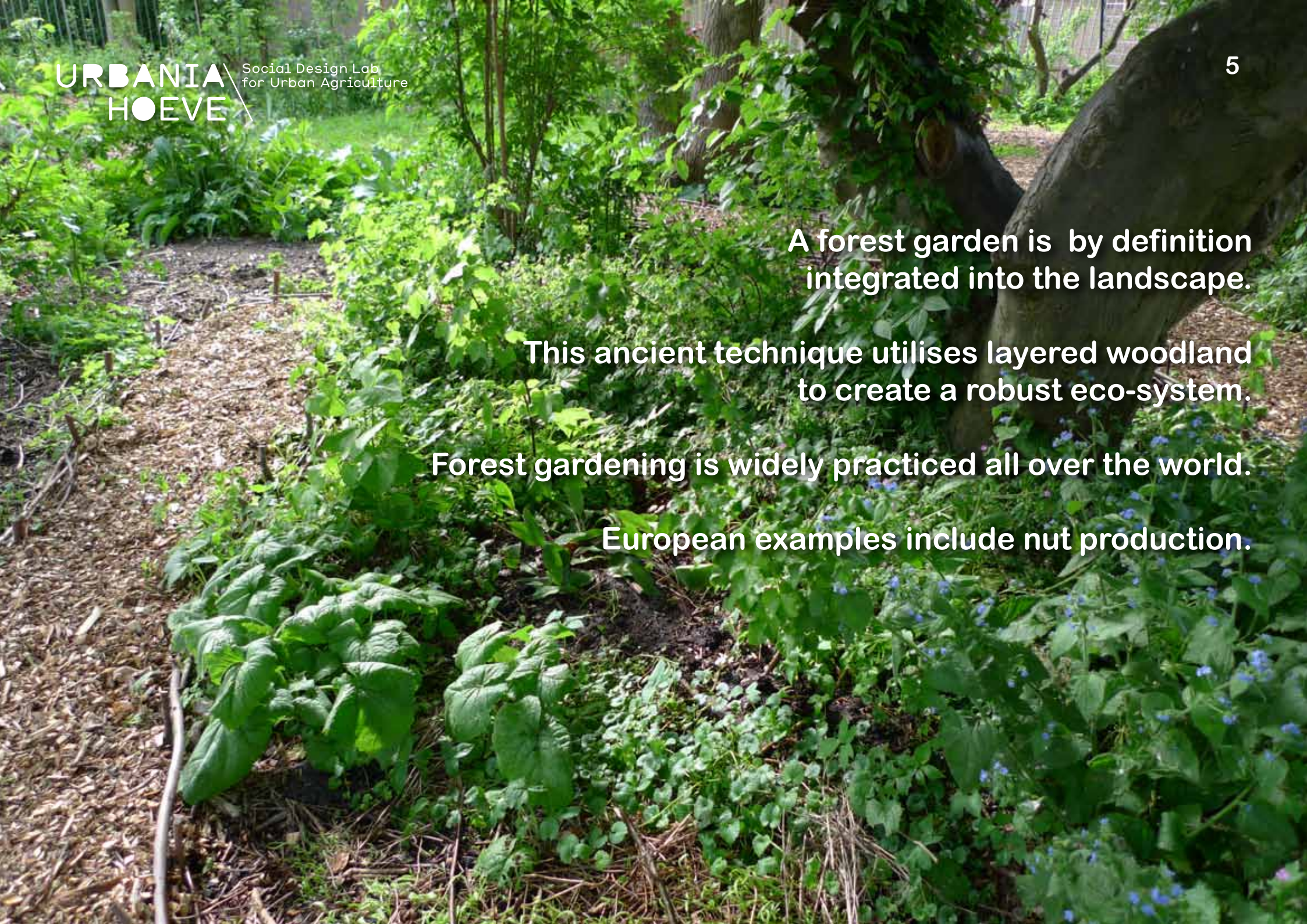


De 7 Lagen van een voedsel bos:

1. ‘canopy’ – hogebomen
2. laagstam (fruit)bomen
3. struiken (bessen)
4. kruidlaag (drachtplanten, kruiden en groenten)
5. bodembedekkers (drachtplanten, kruiden en groenten)
6. rhizosphere (wortelgroenten)
7. klimmers (fruit, drachtplanten)

Forest gardening is a low-maintenance sustainable plant-based food production and agroforestry system based on woodland ecosystems, incorporating fruit and nut trees, shrubs, herbs, vines and perennial vegetables which have yields directly useful to humans. Making use of companion planting, these can be intermixed to grow in a succession of layers, to build a woodland habitat.



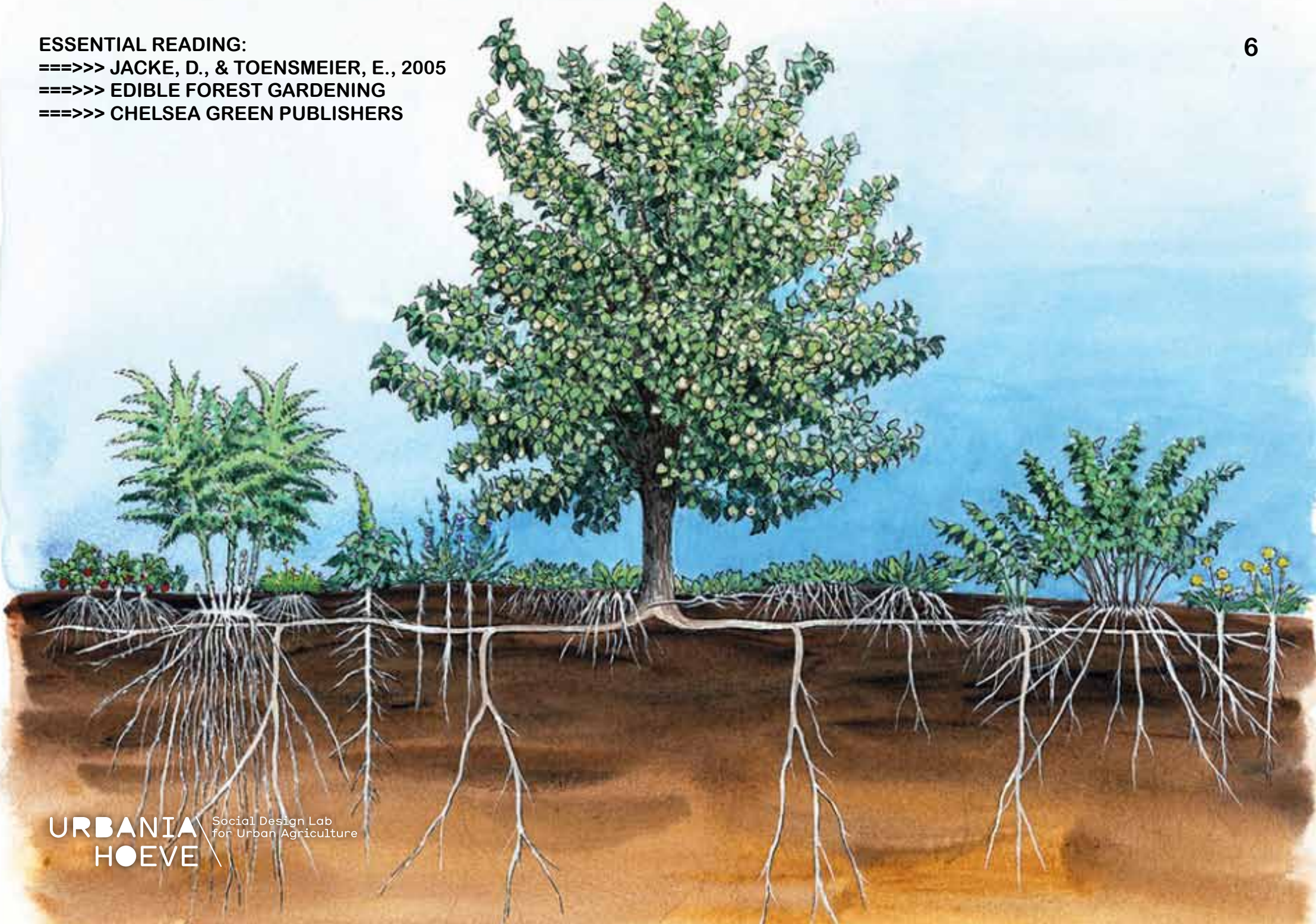
A forest garden is by definition integrated into the landscape.

This ancient technique utilises layered woodland to create a robust eco-system.

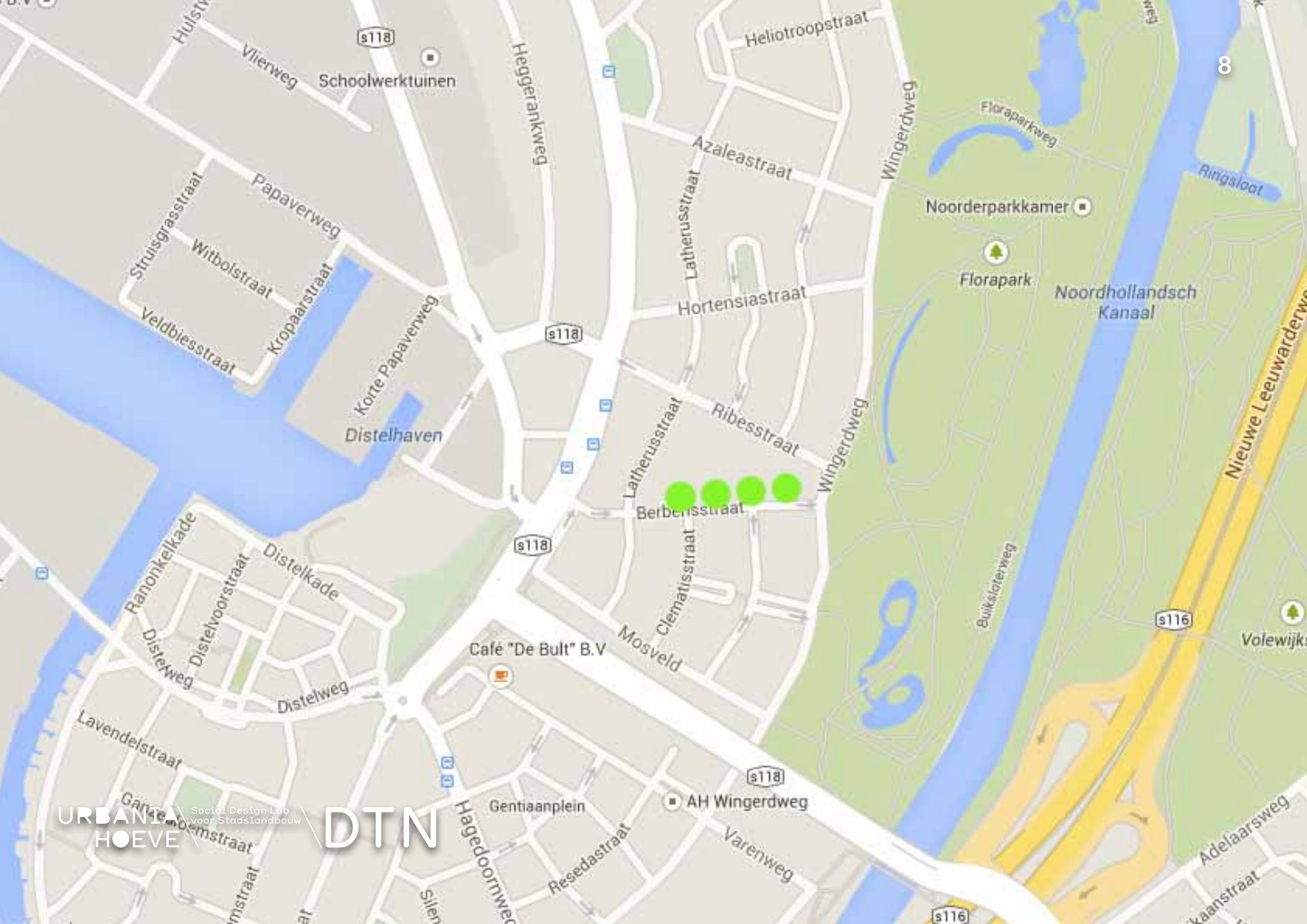
Forest gardening is widely practiced all over the world.

European examples include nut production.

ESSENTIAL READING:
===>>> JACKE, D., & TOENSMEIER, E., 2005
===>>> EDIBLE FOREST GARDENING
===>>> CHELSEA GREEN PUBLISHERS



URBANIA HOEVE \ Social Design Lab voor Stadslandbouw \ FOODSCAPE SCHILDERSWIJK



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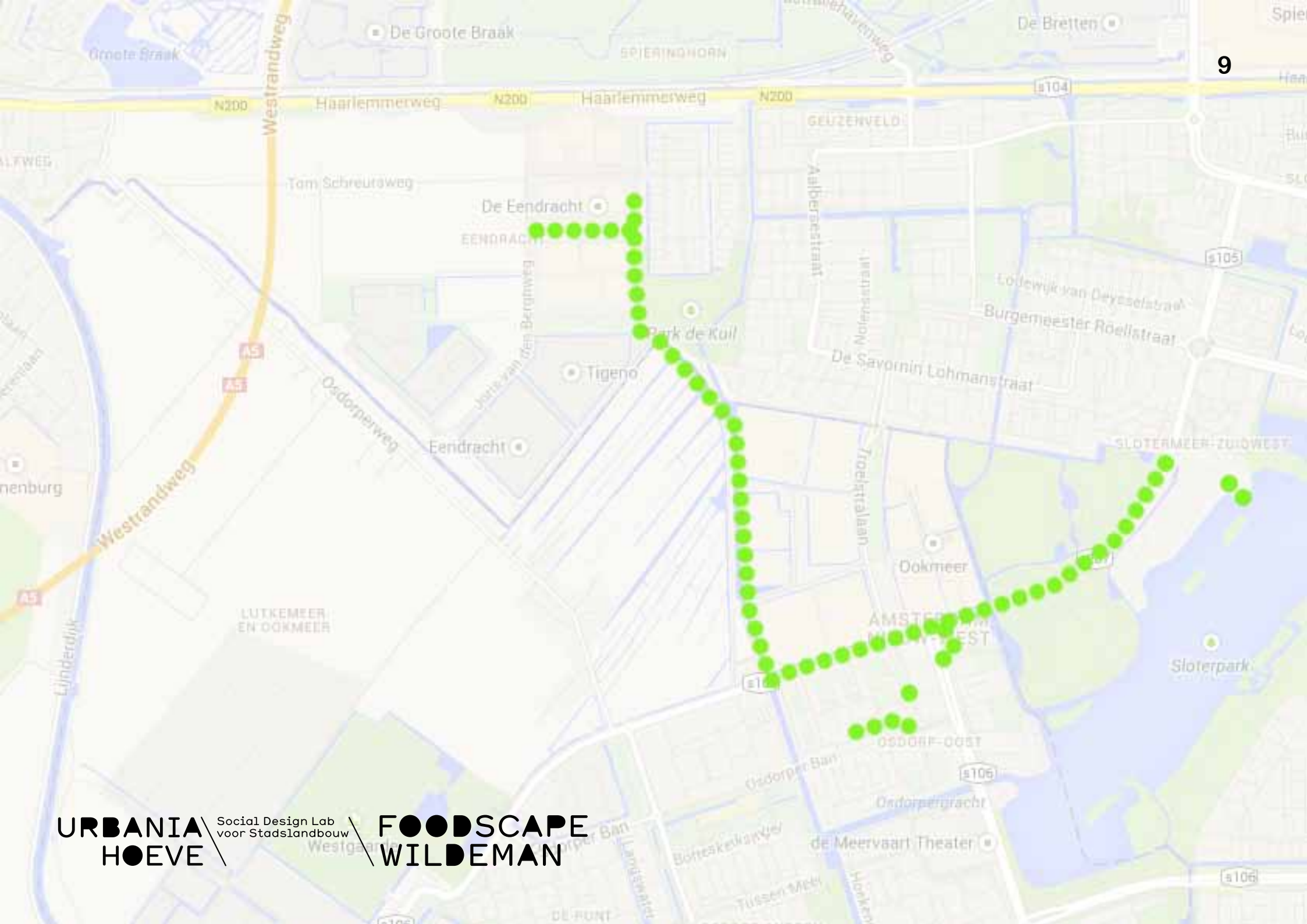

URBANIA HOEVE \ Social Design Lab voor Stadslandbouw \ FOODSCAPE WILDEMAN

URBANIA HOEVE \ Social Design Lab voor Stadslandbouw \ FOODSCAPE SCHILDERSWIJK

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Westenberg Hof est. May 2010

after 12 months

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FOODSCAPE
SCHILDERSWIJK

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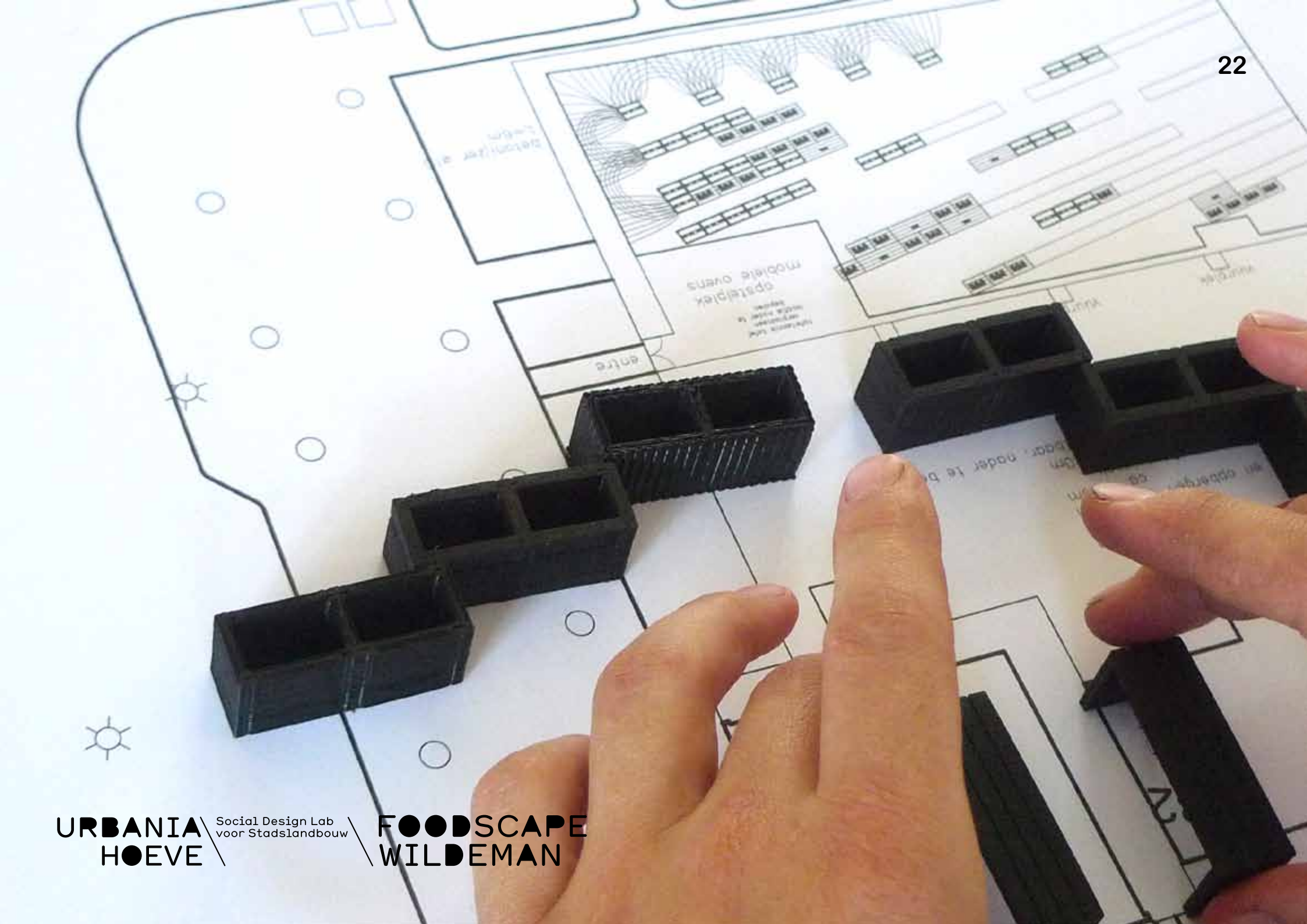
Rabarber is ongekend lekker!



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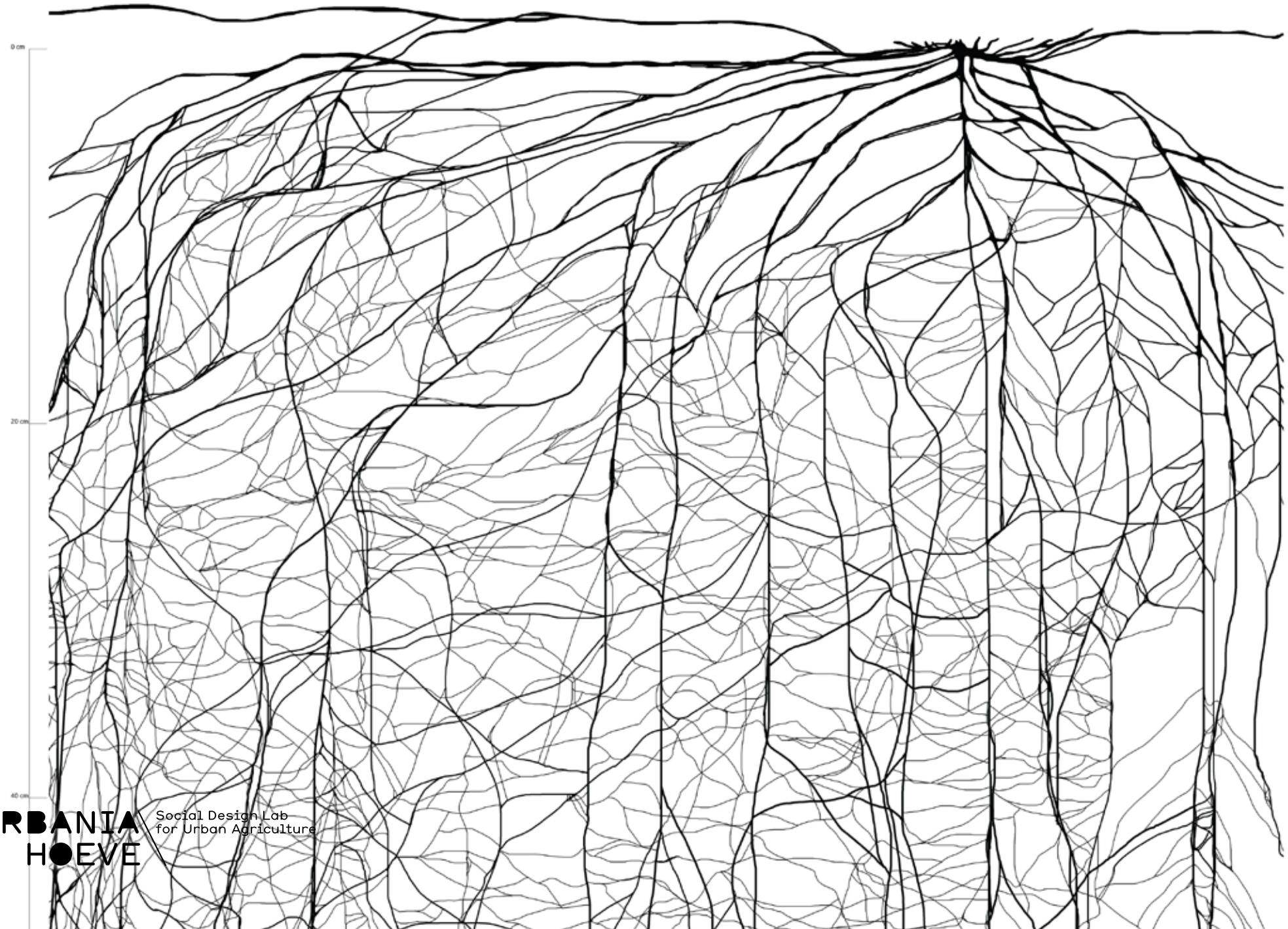

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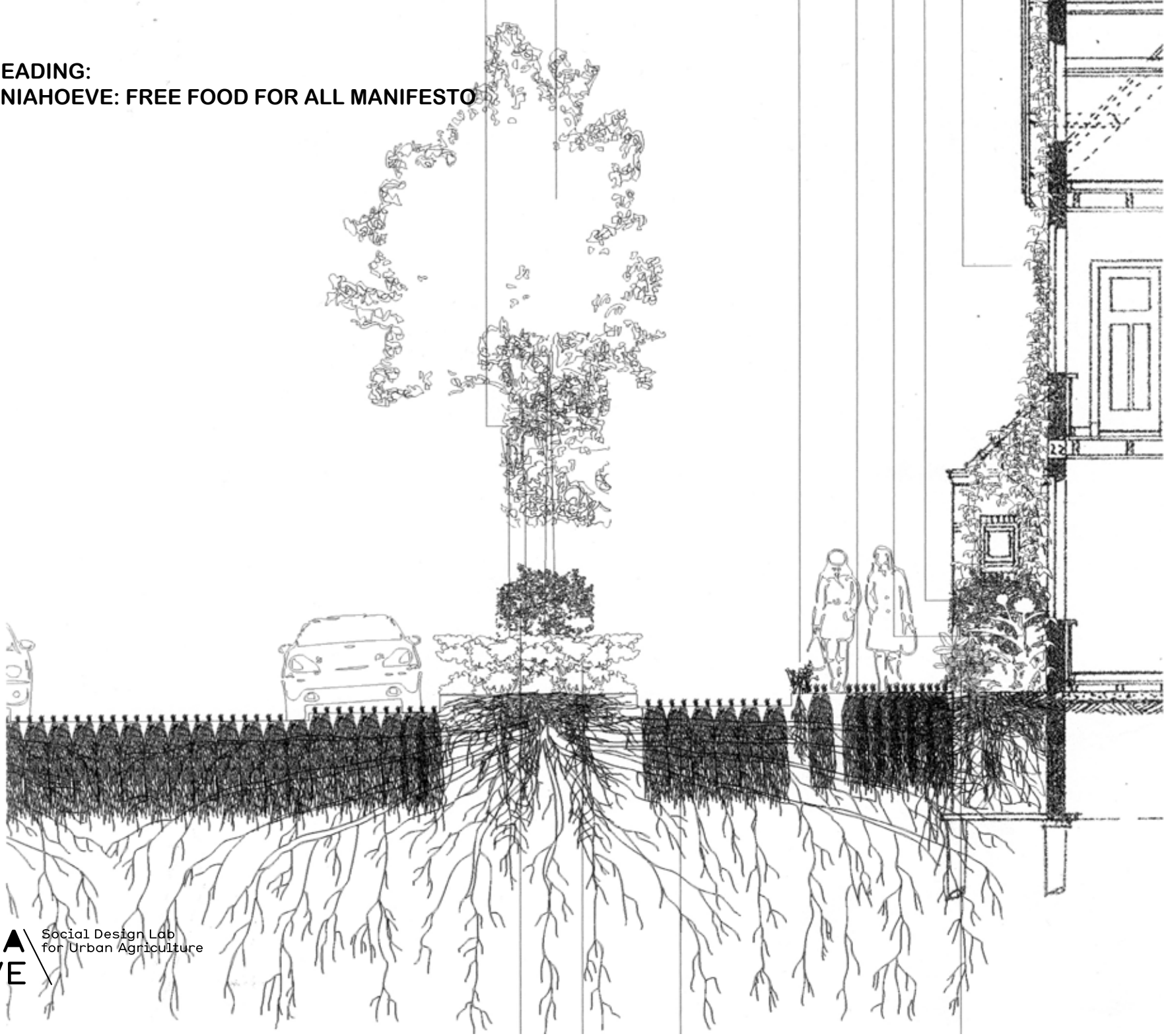
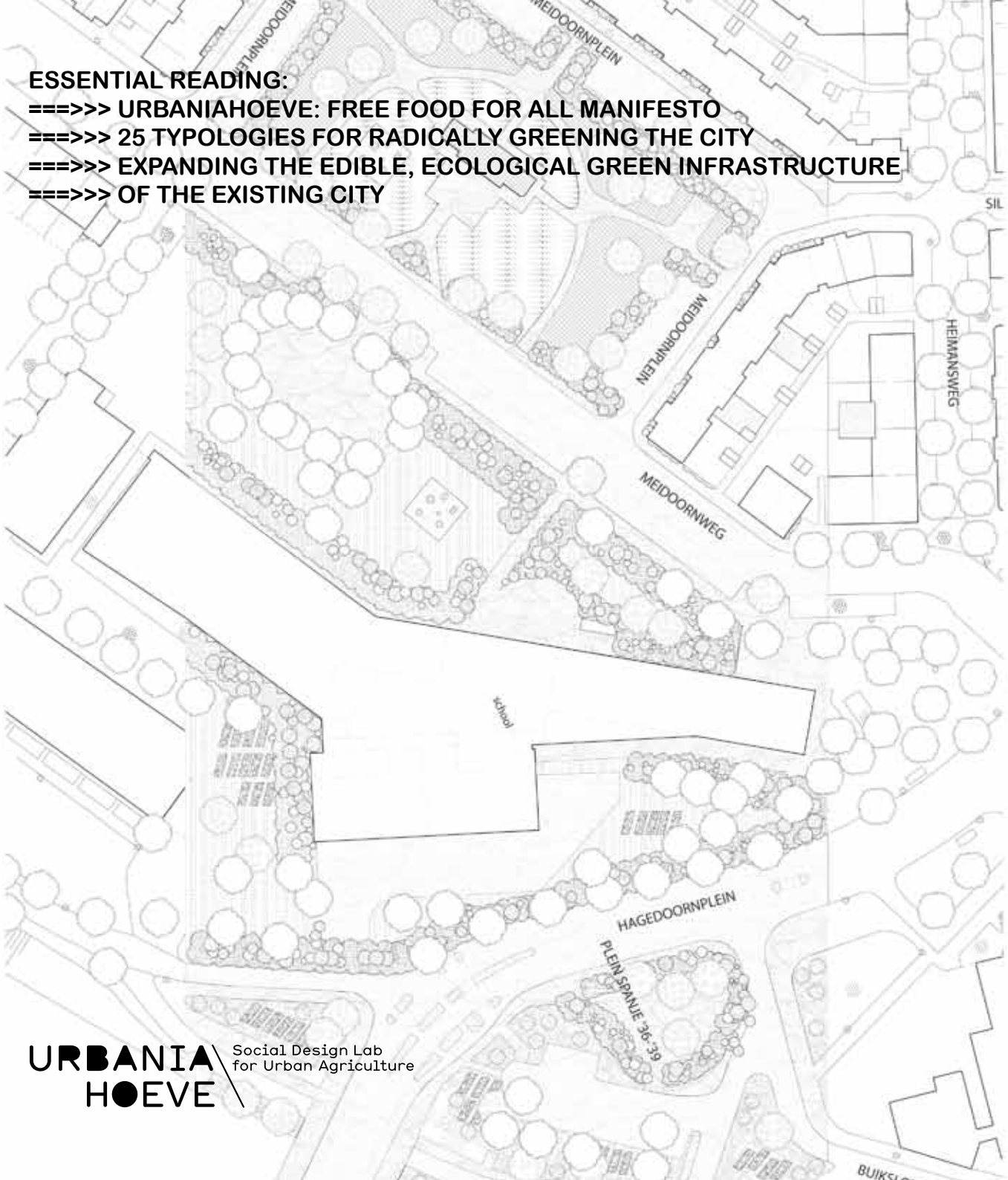


ESSENTIAL READING:
===>>> URBANIAHOEVE: FREE FOOD FOR ALL MANIFESTO
===>>> 25 TYPOLOGIES FOR RADICALLY GREENING THE CITY
===>>> EXPANDING THE EDIBLE, ECOLOGICAL GREEN INFRASTRUCTURE
===>>> OF THE EXISTING CITY



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25 URBANIAHOEVE groentypologieën op volgorde van ruimtegebruik
25 URBANIAHOEVE green typologies in order of spatial requirements

(4- 6m b/w – 8m h) Bestaande stadsbomen. // Urban trees.

(4 - 6m b/w – 8m h) Vrijstaande hoogstam noten- en fruitbomen: noten, hardfruit, druiven of bessen met bodembedekking, groenbemesters, houtige kruiden en bloemen in parken en op pleinen vormen de polycultuur. // Freestanding fruit trees: in parks and city squares, walnut, hazelnut, hard fruit, grapes and berries with perennial herbs, flowers, green manures and bee forage form the multi-layer poly-culture.

(60cm b/w - 3m h) Vrijstaande leiboom als productief en sierlijk hek of heg noord-zuidelijke richting. Laagstam hazelnoot, hardfruit, druiven of bessen met bodembedekking, groenbemesters, houtige kruiden en bloemen vormen de polycultuur. // Freestanding espalier as productive fencing in north and south direction. Semi-dwarf hazelnut, hard fruit, grapes and berries with perennial herbs, flowers, green manures and bee forage form the multi-layer poly-culture.

(60cm b/w - 3m h) Leimuur: als productieve en sierlijke isolatie op zuidelijke en westelijke muren. Laagstam hazelnoot, hardfruit, druiven of bessen met bodembedekking, groenbemesters, houtige kruiden en bloemen vormen de polycultuur. // Wall espalier as productive and ornamental insulation. Dwarf hazelnut, hard fruit, grapes and berries with perennial herbs, flowers, green manures and bee forage form the multi-layer poly-culture.

(60cm b/w - 2m h) Vrijstaande leiboom als productief en sierlijk hek of heg, noord-zuidelijke richting. Laagstam hazelnoot, hardfruit, druiven, bessen en bramen met bodembedekking, groenbemesters, houtige kruiden en bloemen vormen de polycultuur. // Freestanding espalier as productive and ornamental fencing, hedge or barrier. Semi-dwarf hazelnut, hard fruit, grapes and berries with perennial herbs, flowers, green manures and bee forage form the multi-layer poly-culture.

(60cm b/w - 2m h) Leimuur: als productieve en sierlijke isolatie op zuidelijke en westelijke muren. Laagstam hazelnoot, hardfruit, druiven of bessen met bodembedekking, groenbemesters, houtige kruiden en bloemen vormen de polycultuur. // Wall espalier as productive and ornamental insulation. Dwarf hazelnut, hard fruit, grapes and berries with perennial herbs, flowers, green manures and bee forage form the multi-layer poly-culture.

(40cm b/w - 1.5m h) Vrijstaande leiboom als hek, heg of omheining. Druiven, bessen, bramen, frambozen met bodembedekking, groenbemesters, houtige kruiden en bloemen vormen de polycultuur. // Freestanding espalier as productive and ornamental fencing, hedge or barrier. Grapes and berries, with perennial herbs, flowers, green manures and bee forage form the multi-layer poly-culture.

(40cm b/w – 60 – 150cm h) Leimuur: als productieve en sierlijke isolatie op zuidelijke en westelijke muren. Druiven, bessen, bramen, frambozen met bodem bedekking, groenbemesters, houtige kruiden, en bloemen vormen de polycultuur. // Wall espalier as productive and ornamental insulation. Grapes and berries, with perennial herbs, flowers, green manures and bee forage form the multi-layer poly-culture.

(80 - 100cm2) Asteraceae areaal: architectonische bedden met eetbare bloemen zoals artisjokken en echinacea op de hoeken van straten of als groenbarrière of parterre. // Asteraceae area: Architectural beds of edible flowers from the asteryscompasite family on street corners, as barrier or parterre.

(60 - 80cm2) Bosachtige bloemenblokken: architectonische,bodembekkende,nectardragende blokken op de hoeken van straten of als groenbarrière of parterre. // Bushy flower beds: Architectural beds of bushy flowers as groundcover and nectar rioting on streets corners, as barrier or parterre.

(40 – 60cm2): Houtige kruidenblokken: lage geurende blokken op de hoeken van straten of als groenbarrière. // Perennial herb blocks: Aromatic block hedge on street corners and as barrier.

(40 – 60cm b/w) Kruiderheg: lage, geurende omheining langs straten, parkranden of als parterre. // Perennial herb border: Low-lying and aromatic border along streets, parks and as parterre.

(1.5m – 2.5m b/w) Wild aantrekkelijke randen:

(– 7m b/w) Nectarmuur: langs hoge muren bieden klimplanten 8 à 10 maanden lang nectar &voerage aan lokale bestuivers en isoleren de muren. // Nectar walls: Along high walls, climbing plants provide walls of nectar forage for local pollinators 8-10 months per year and insulate buildings.

(min 60cm - 1.5m h) Heuvelcultuur: heuvels en ondergrondse vlonders gemaakt van rotzende boomstammen vergroot het oppervlakte en creëert gezonde microklimaten. Het rottingsproces maakt de bodem warmer, vochthoudender en vruchtbaarder voor de planten die hierop groeien. Heuvelcultuur is een oeroude techniek en is een bestemming voor het urbane houtafval en tevens uitstekend geschikt voor koolstofvastlegging. // Mound culture/Hugelkultuur: Planting beds (raised or sunken) made from rotting logs increase surface area, create plant micro-climates, and provide fertile soil. Benefits of Hügelkultur include an increase in beneficial microbial and insect life in soils, better water retention, warmer soil, and an effective means of urban carbon sequestration.

Groene verharding met of zonder verharde rijstroken: grasbetonzerkels beplant met lage bodembedekking zoals kruipende klavers, al bekend op sportvelden en parkeerterreinen waar drainage prioriteit heeft. Zorgt voor aansluiting met de eetbare ecologische hoofdstructuur (zie ook 'in plaats van gras'). // Green paving with or without hardened driving lanes: Grass tiles planted with a low-lying, dense ground cover such as clover ensures continuity of the ecological framework. Open paving is presently used in sport field/ parking areas where drainage is a priority. (see 'instead of grass').

In plaats van gras: stedelijke gazons beplant met bodemherstellende drachtplanten (bijvoorbeeld klavers) die zorgen voor een stevige toename in biodiversiteit en verbeterde nectarroutes door wijken. // Instead of grass: Urban lawns planted with flowers and other nitrogen fixing ground covers increase plant biodiversity, soil fertility, and a robust nectar routing throughout the neighbourhood.

Buurtkwekerij en Kasiokaal: de Buurtkwekerij kweekt zowel plantgoed als de behoefte aan groen ter verdere uitbreiding van de eetbare ecologische hoofdstructuur in de wijk. Het Kasiokaal biedt locatie voor het langere teeltseizoen en is tevens een thuisbasis en klaslokaal voor kookclubs, workshops en gemeenschappelijke winterse voedselconservatie activiteiten. Er is ruimte voor wijkwijde compostproductie, wormenkwekerij, bijenteelt, boerenmarkten en oogstfeesten op deze polyvalente agrarische stadslocatie. // The Neighbourhood Nursery and Greenhouse Classroom is a platform for educational programming that nurtures plants, collaborations, and skill-set for the expansion of an edible, ecological framework. The Greenhouse Classroom houses cooking clubs, workshops and communal winter food conservation and provides young plants with a longer growing season. The terrain and facilities are large enough to host expansive projects like compost production, beekeeping, regularly occurring Farmers' markets and harvest festivals.

Paddenstoelenkwekerij in het vallid in bestaande stachbossen en tuinen bosschage wordt lokaal houtafval gebruikt voor de gemeenschappelijke teelt van paddenstoelen. Paddenstoelenteelt op boomstam is visueel aantrekkelijk en verschillende fungi zijn geschikt voor phytoremediatie van sterk vervuilde stadsgronden (zie ook 'Voerageer forêt'). // Urban Mushroom Forest: In existing urban forests and thickets, local wood waste is used for the communal cultivation of mushrooms. Aside from their visual appeal, mushrooms can fortify urban soils improving their efficacy at water and carbon sequestration and several families of fungi have proven effective in decreasing the bio-availability of soil contaminants. (See also foraging forest.)

Schooltuin: in een schooltuin doen alle leerlingen tussen 11 en 17 jaar doorlopend theoretische en praktische kennis op om zelf vers voedsel te kweken. Projecten als Foodscape Schilderwijk van URBANIAHOEVE bewijzen dat ook op de middelbare school lessen als biologie, Nederlands, Engels en maatschappijleer prima gedoceerd kunnen worden in een schooltuin. // School garden: A school garden/edible schoolyard provides children and young adults the theoretical and practical knowledge to grow one's own food. URBANIAHOEVE's Foodscape Schilderwijk shows that middle school biology, Dutch, English, and social studies can be effectively taught in the context of the school garden.

Privé (moes)tuin: in eigen achter- en geveltuinen verbouwen bewoners ornamentele beplanting, vers fruit en groente, soms een onwetende aanvulling vermend op de ecologisch hoofdstructuur. // Private gardens: In private gardens residents typically grow ornamental plants, and occasionally fresh fruits and vegetables, may unwittingly provide an extension of the ecological framework.

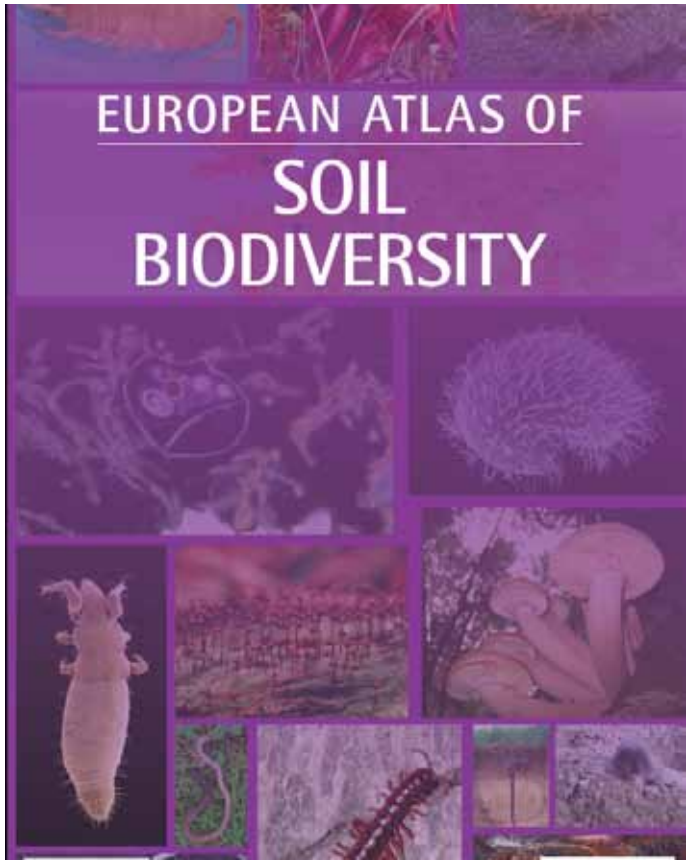
Park / landschap / polycultuur park: landschappelijk vormgegeven groene ruimtes voor vrijetijdsbesteding. Deze vormen een link met de ecologische hoofdstructuur.// Park/landscape/ permaculture park: Landscaped green spaces programmed for

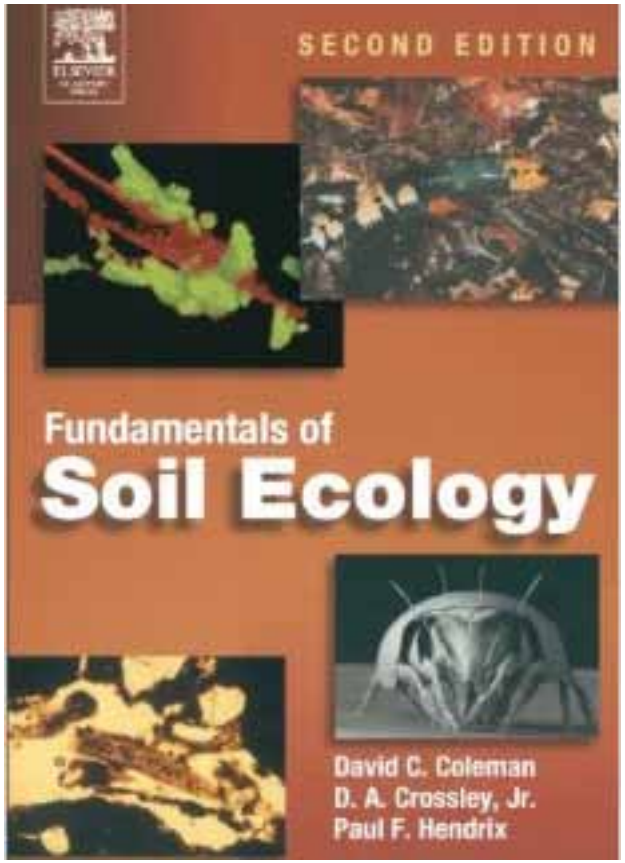
ESSENTIAL READING:

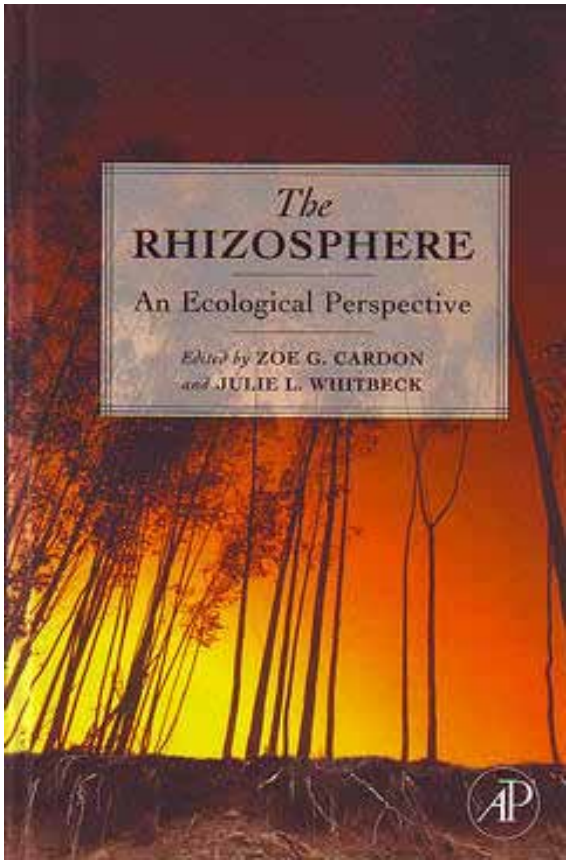
===>>> EUROPEAN ATLAS OF SOIL BIODIVERSITY, 2010, EUROPEAN COMMISSION, LUXEMBOURG.

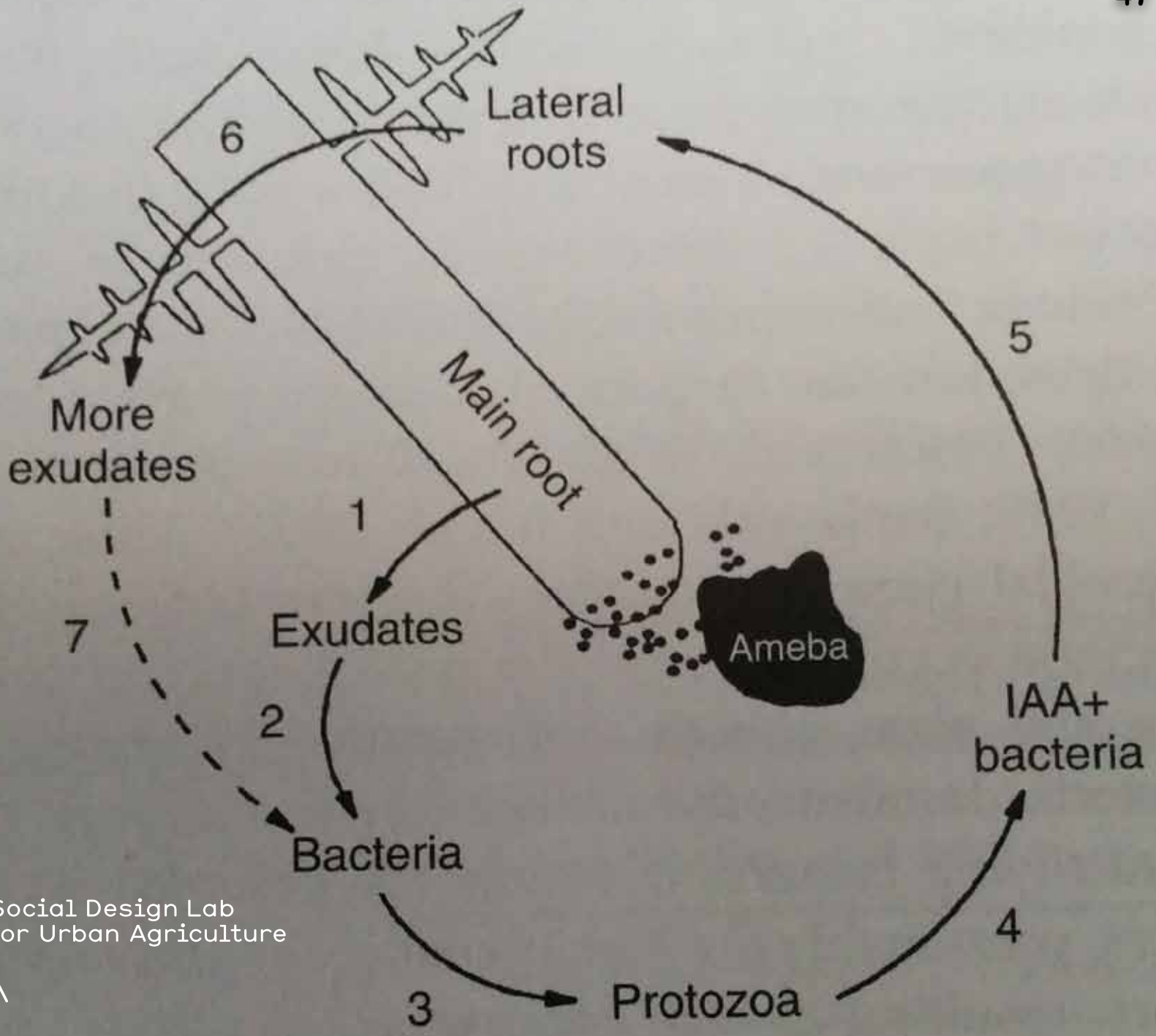
===>>> COLEMAN, DAVID C., AND EDITORS, 2004, FUNDAMENTALS OF SOIL ECOLOGY, 2ND EDITION, ELSEVIER.

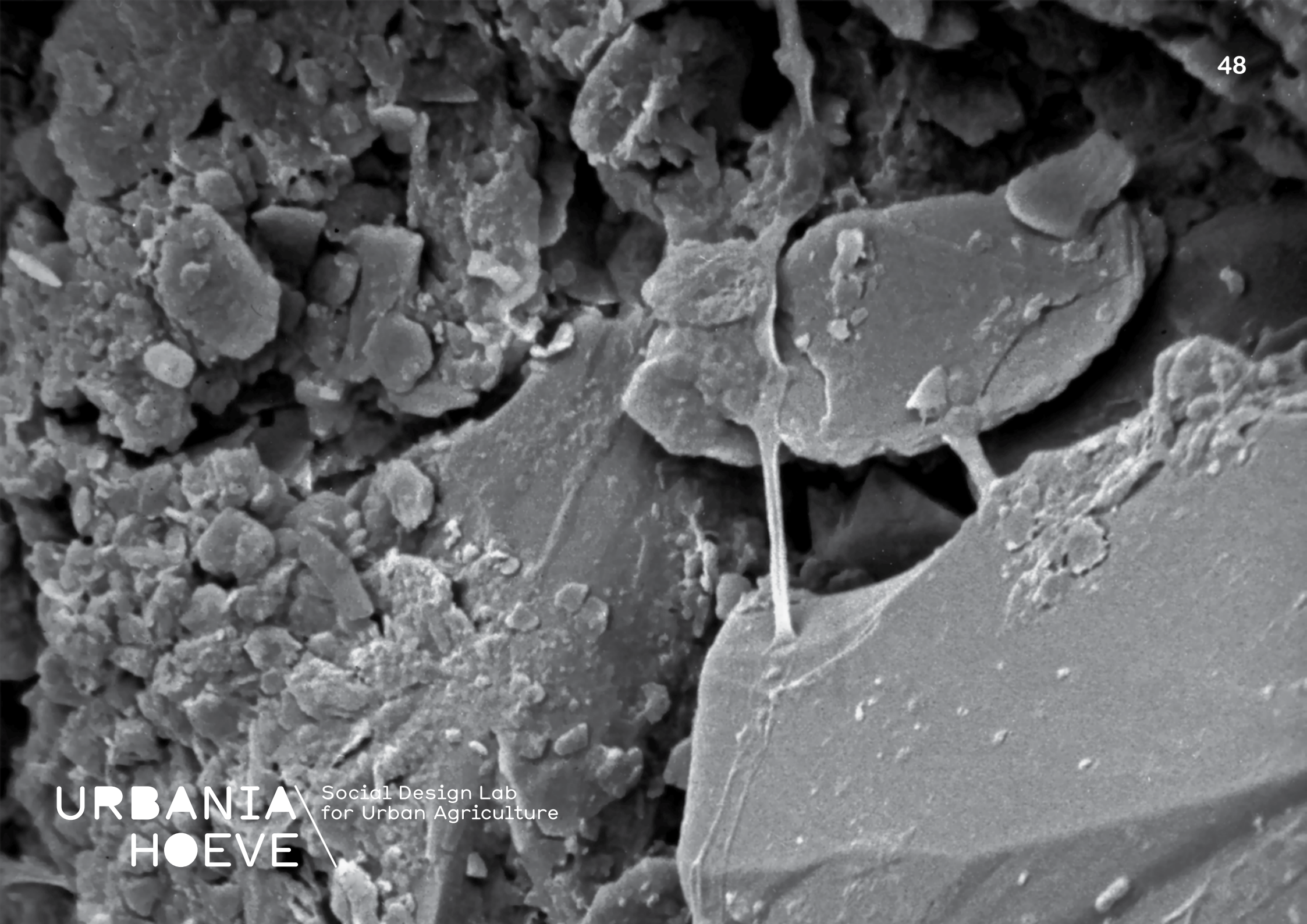
===>>> CARDON, ZOE, G., WHITBECK, 2007, THE RHIZOSPHERE, AN ECOLOGICAL PERSPECTIVE, ELSEVIER.








Lateral roots
6
More exudates
Main root
1
5
7
Exudates
Ameba
2
IAA+ bacteria
Bacteria
4
3
Protozoa



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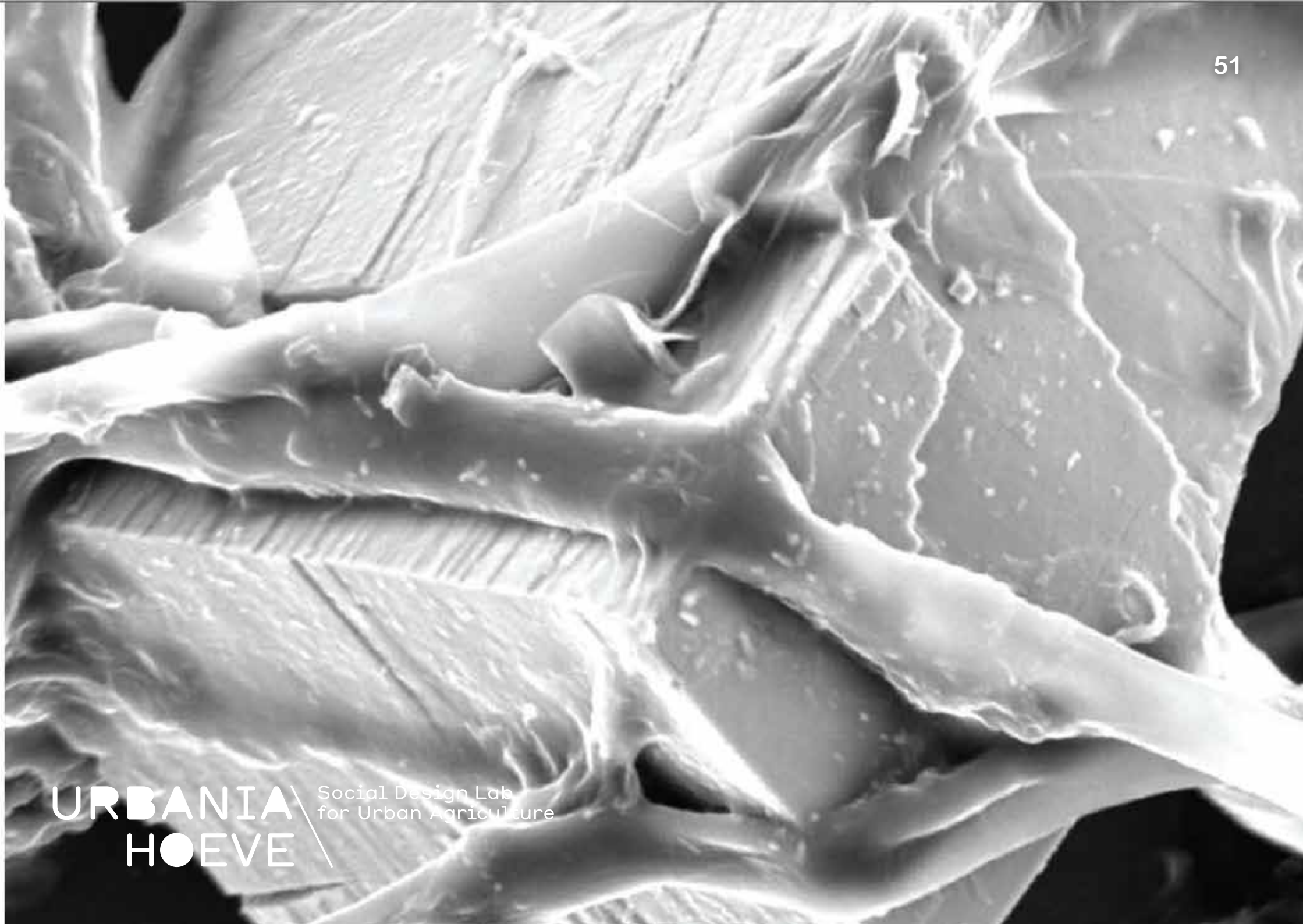

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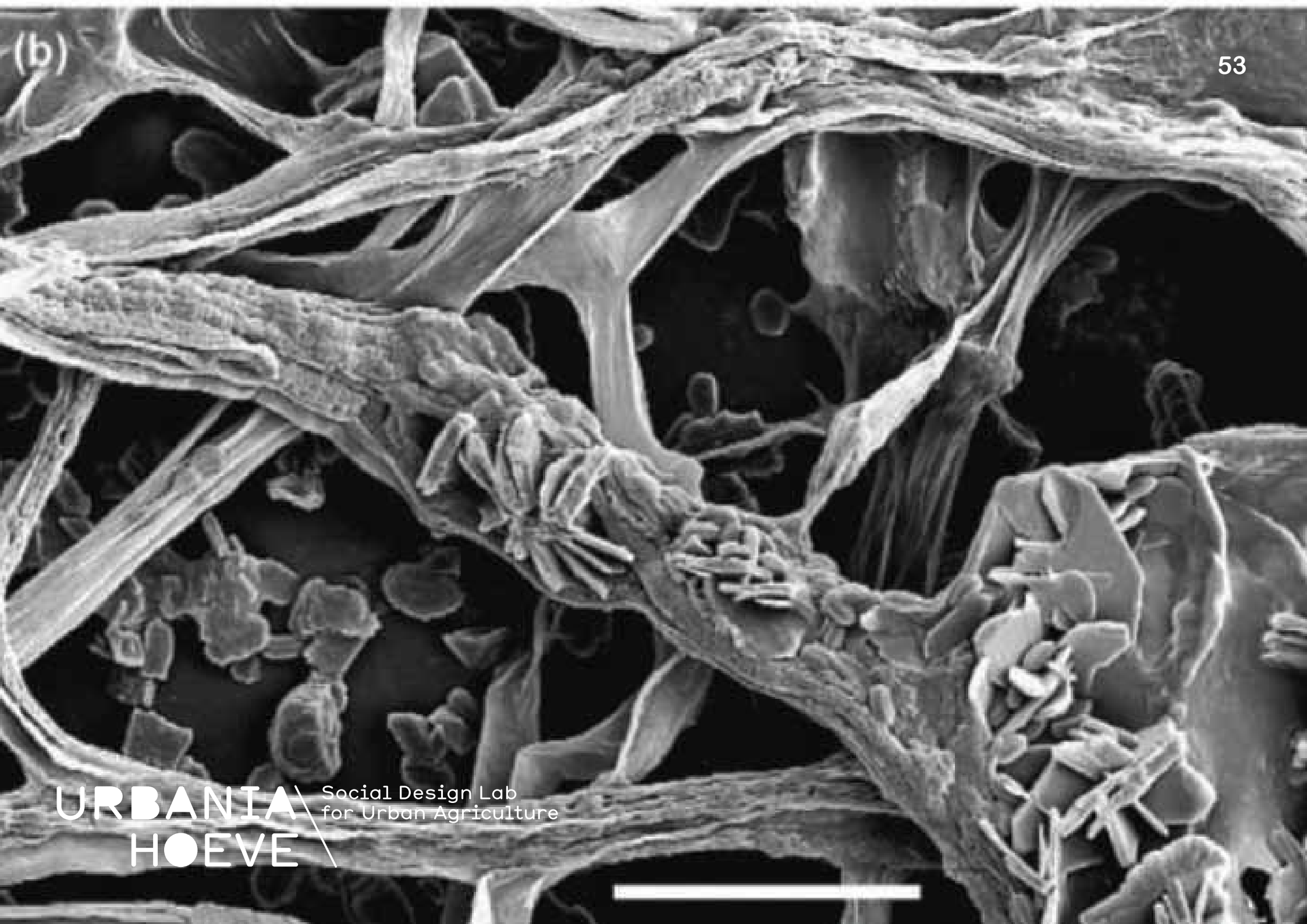

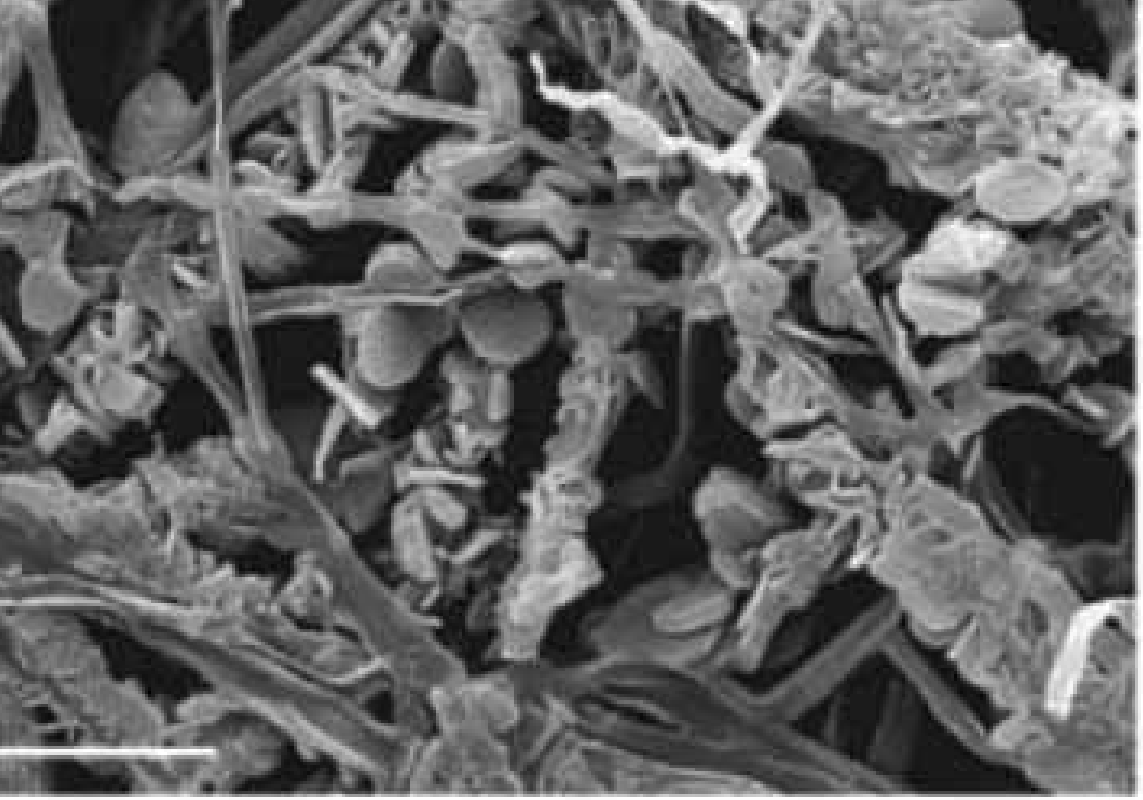

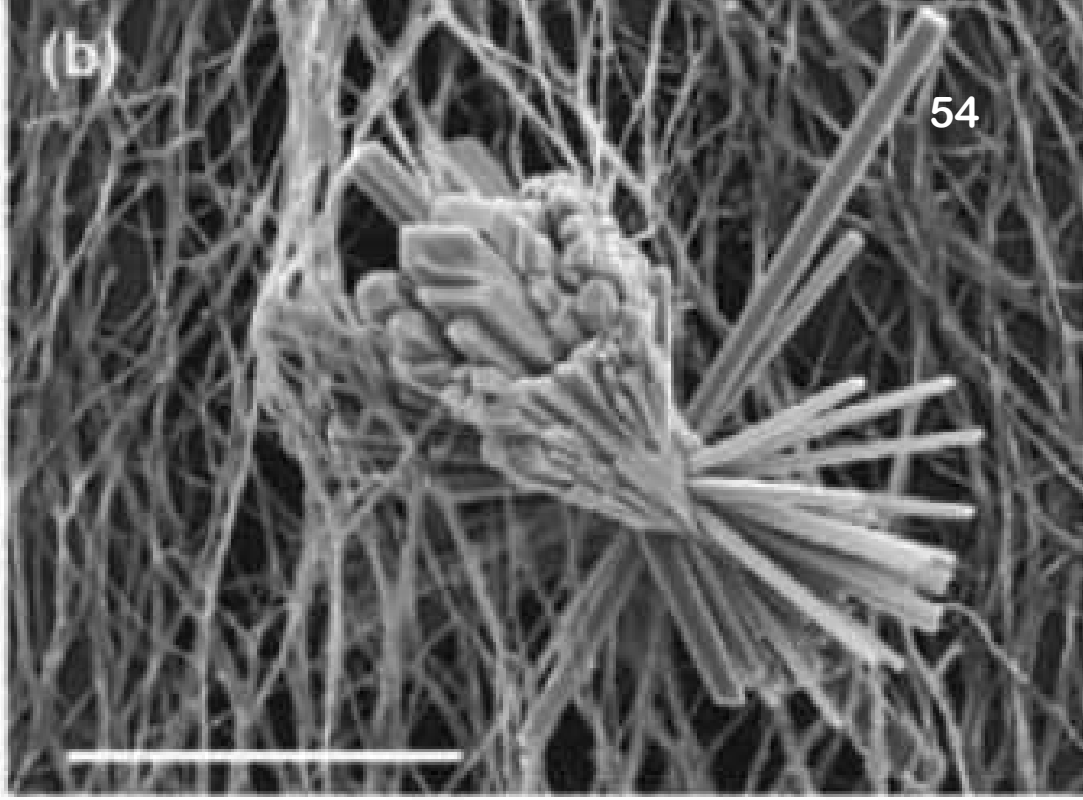

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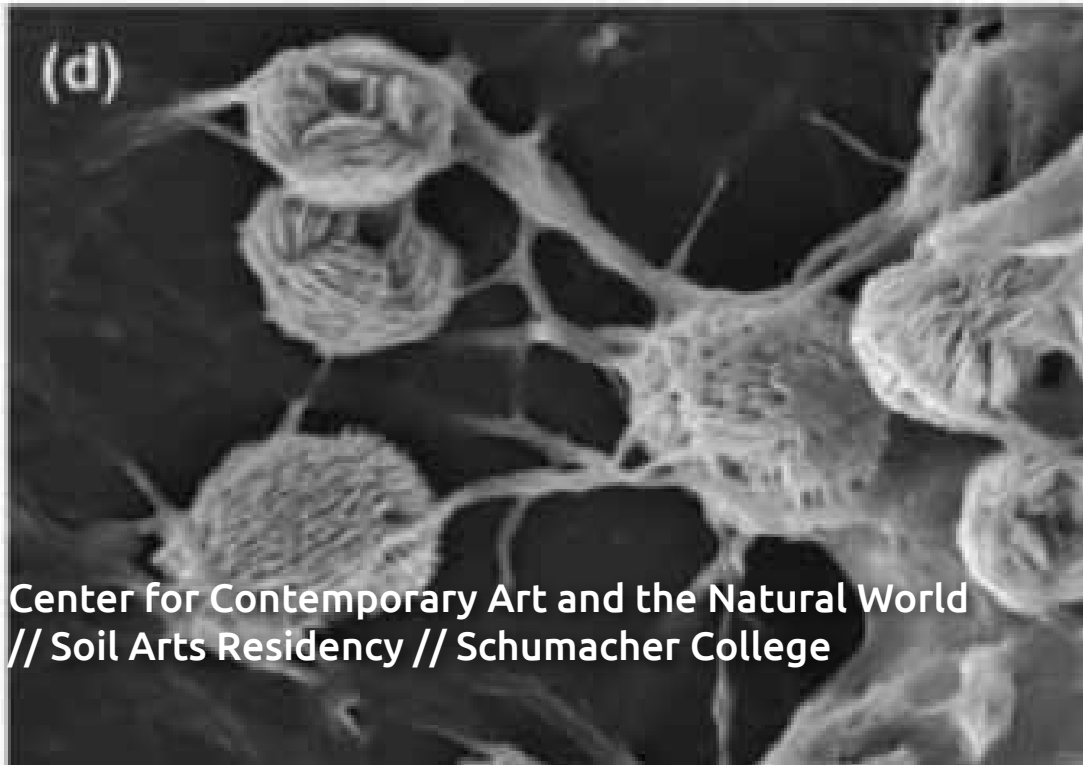

Center for Contemporary Art and the Natural World
// Soil Arts Residency // Schumacher College

Tempe is losse sojabonen geënt met fungi (Rhizopus oligosporus).
Het mycelium groeit en bindt de bonen aan elkaar.

Debra Solomon and Martin Crawford in Crawford's 20 year old forest garden at Schumacher College on the Dartington Estate in Devon.

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pH

Compared to arable sandy soils in the Netherlands (Mol et al. 2012), the soil samples from different treatment had similar but relatively high pH at around 7. This is because the garden is located in the urban area, where the soils contain alkaline construction and demolition waste like lime, bricks, etc.

Moisture content

The moisture content grew significantly ($p<0.05$) with the increase of mulching degrees, from about 10% up to 45%. ter evaporation from soil to air were less, which explains the higher moisture content in wood chips mulched soils.

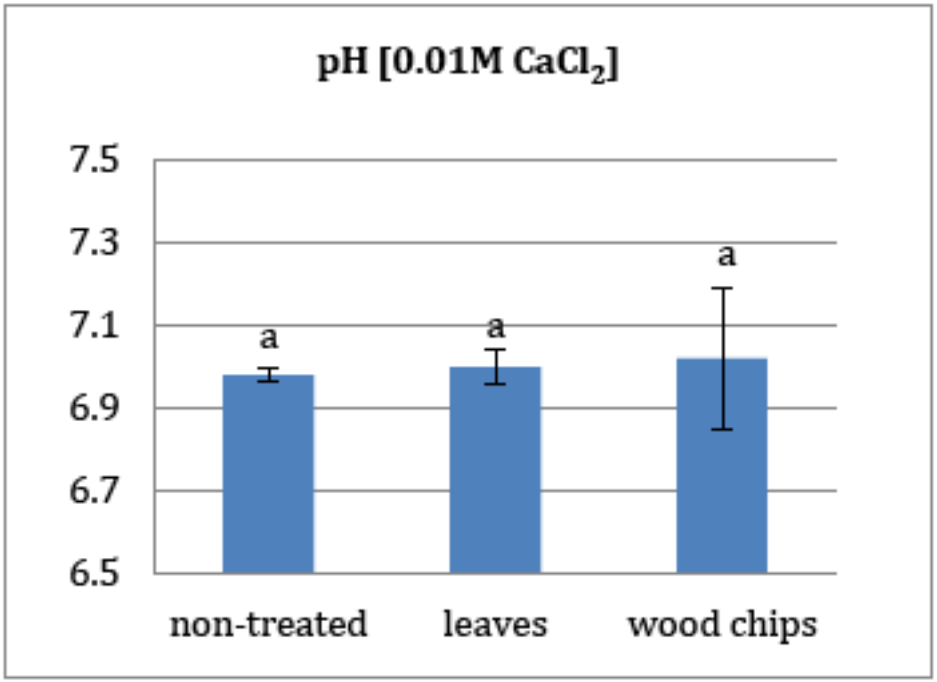


Figure 4 Soil pH (in 0.01M $CaCl_2$)

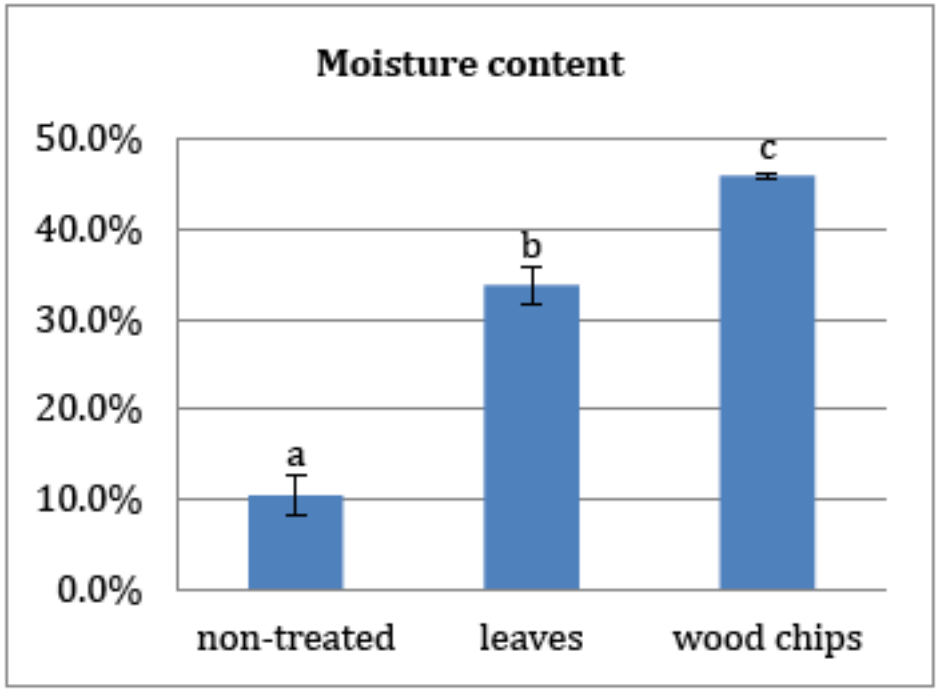


Figure 5 Moisture content

Organic matter content

Compared to non-mulched soils, leaves and wood chips mulched soils doubled and tripled the soil organic matter content respectively, and these increases was proved to be statistic significant ($p<0.05$). Also the organic matter contents in mulched soils were higher than the median level (the red line in the graph) of sandy soils in the Netherlands, and were almost higher than 95% of sandy soils (11.6 %)(Mol et al. 2012).

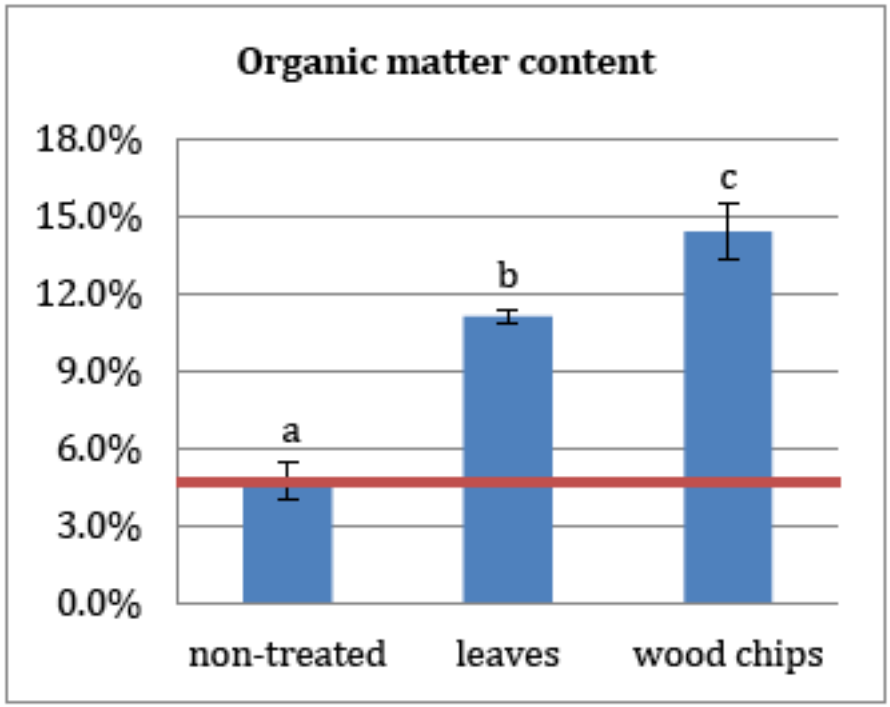


Figure 6 Organic matter content

Dissolved organic carbon and its fractionation

The total DOC contents of leaves and wood chips mulched soils were about 3.5 and 3 times higher than non-mulched soils. However, if one combined the results of leaves and wood chips mulched soils (Figure 8), a significant difference ($p=0.016$) between non-treated soil and mulched soils can be seen. The increase of total DOC in mulched soils was mainly driven by the increase of humic acid and fulvic acid content.

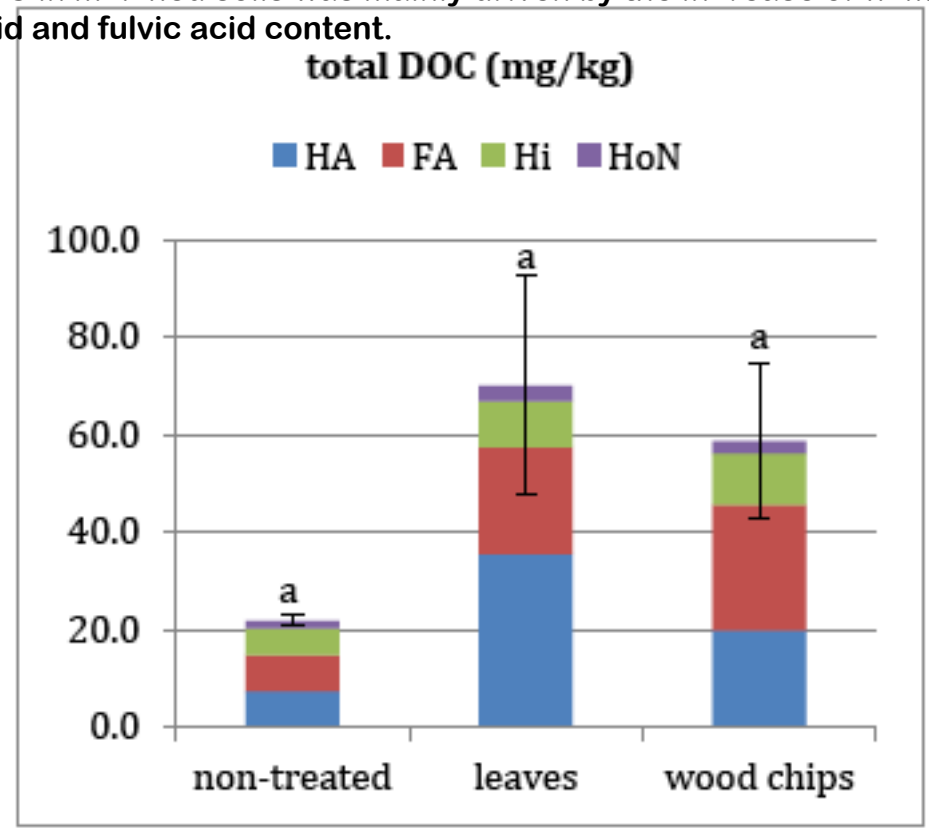


Figure 7 Total DOC content

Available nutrient contents

Generally, according to the previous studies, mulching improved the soil available nutrient status via two ways: reducing the nutrient losses caused by runoff (Rees et al. 2002) and increasing the nutrient supply through the addition of organic mulching materials (Tian et al. 1997). Besides, the significantly higher microbial activity (mineralizable N) observed in two mulched soils (See Section 5.11) may also lead to high nutrient availability by enhancing both the microbial biomass turnover and the degradation of non-microbial organic materials(Zaman et al. 1999; Wang et al. 2004; Tu et al. 2006).

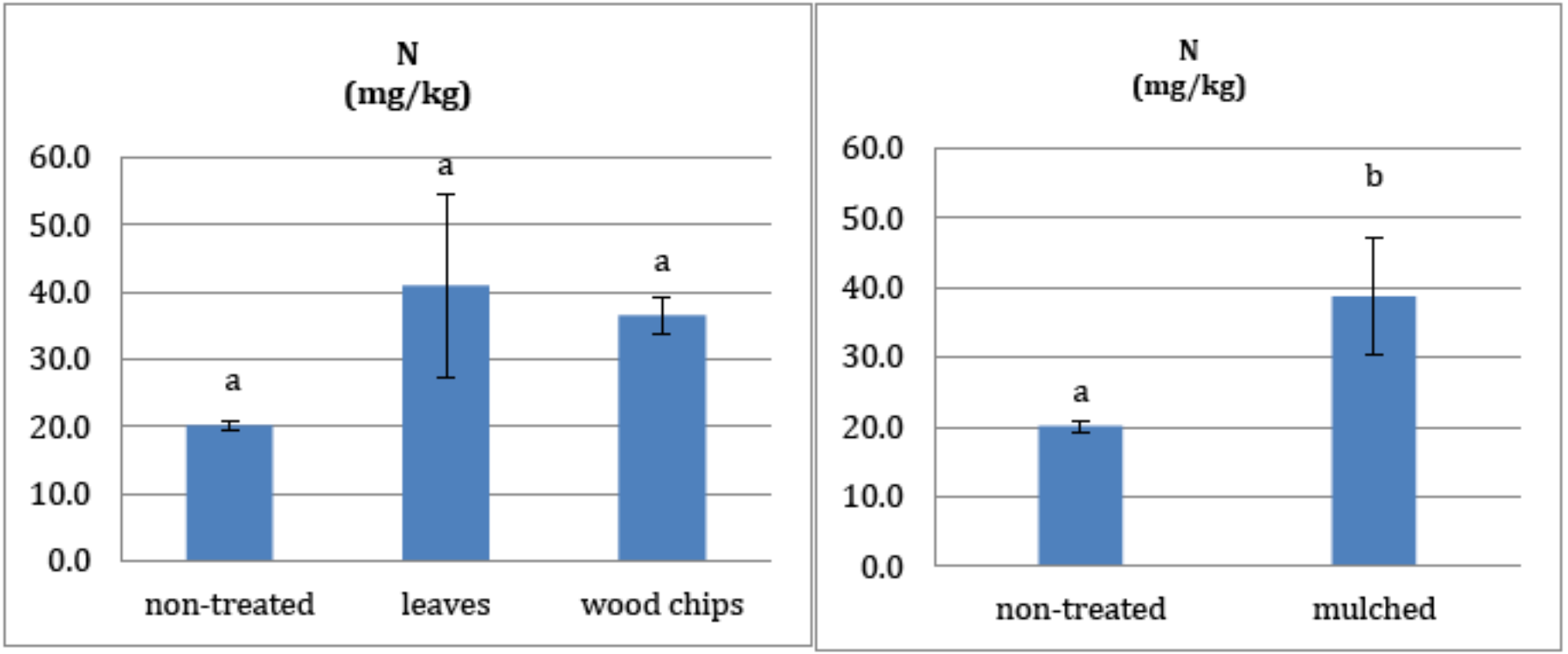


Figure 12 Available nutrient contents

Available nutrient contents

Generally, according to the previous studies, mulching improved the soil available nutrient status via two ways: reducing the nutrient losses caused by runoff (Rees et al. 2002) and increasing the nutrient supply through the addition of organic mulching materials (Tian et al. 1997). Besides, the significantly higher microbial activity (mineralizable N) observed in two mulched soils (See Section 5.11) may also lead to high nutrient availability by enhancing both the microbial biomass turnover and the degradation of non-microbial organic materials(Zaman et al. 1999; Wang et al. 2004; Tu et al. 2006).

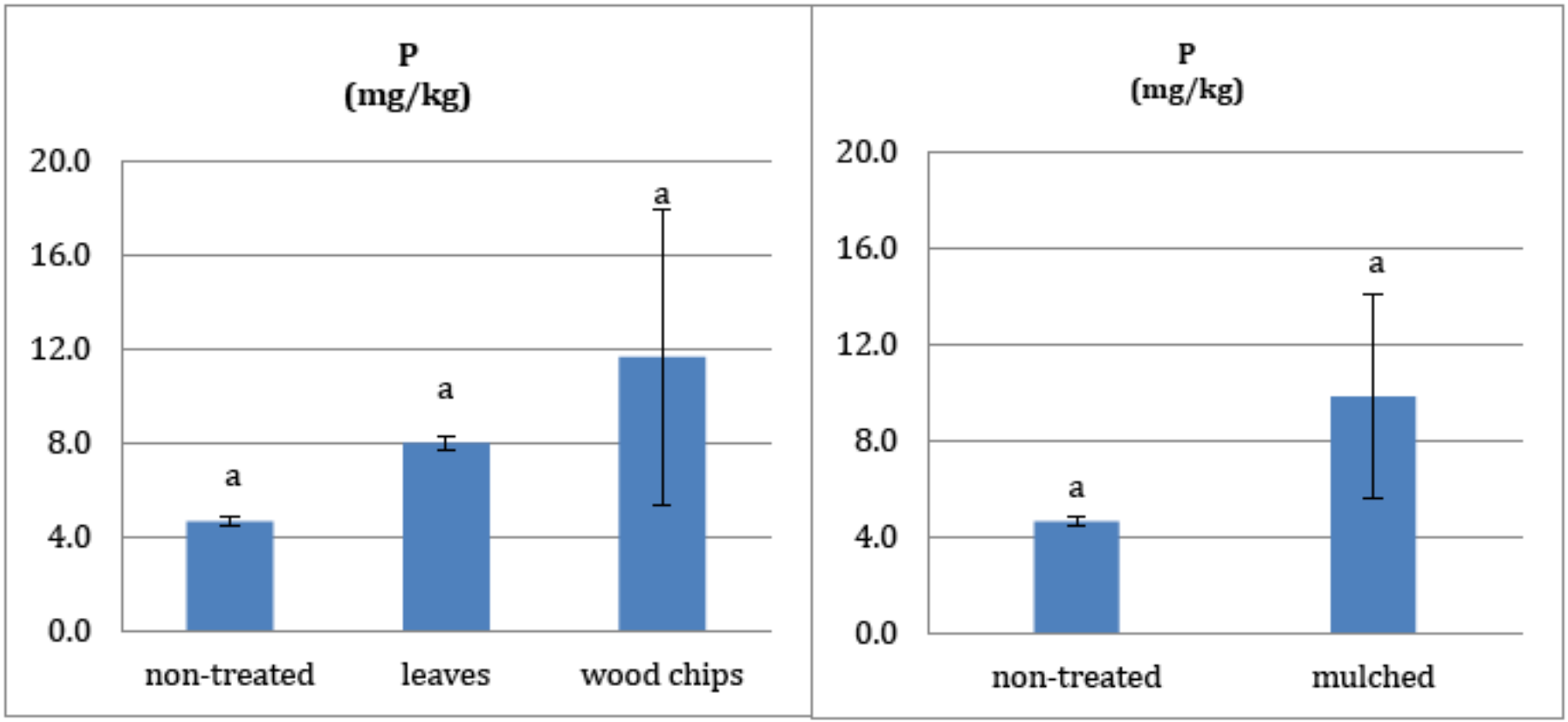
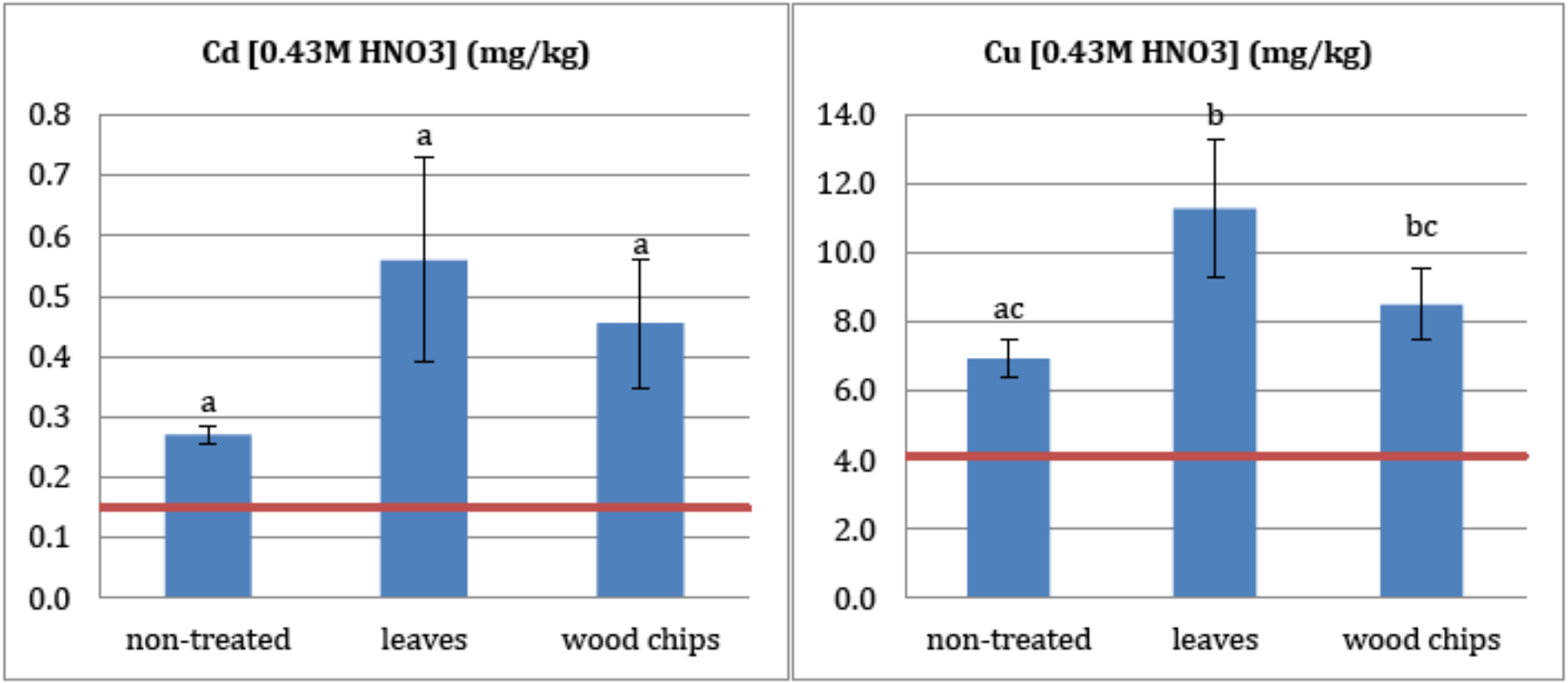


Figure 13 Available nutrient contents

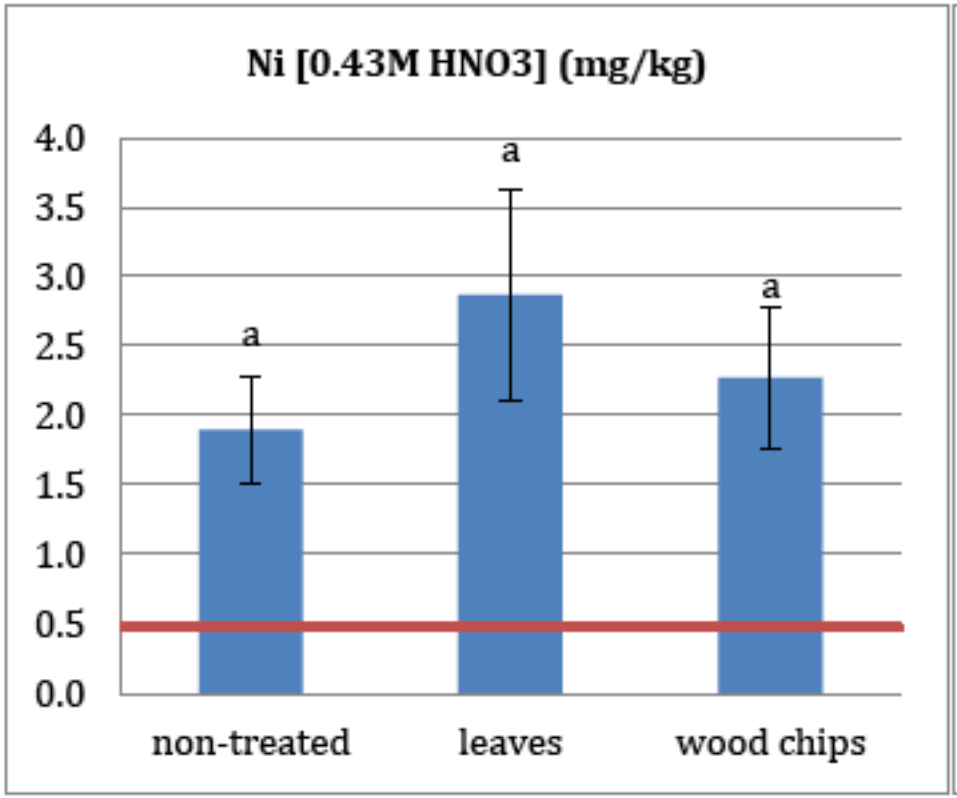
Metal content

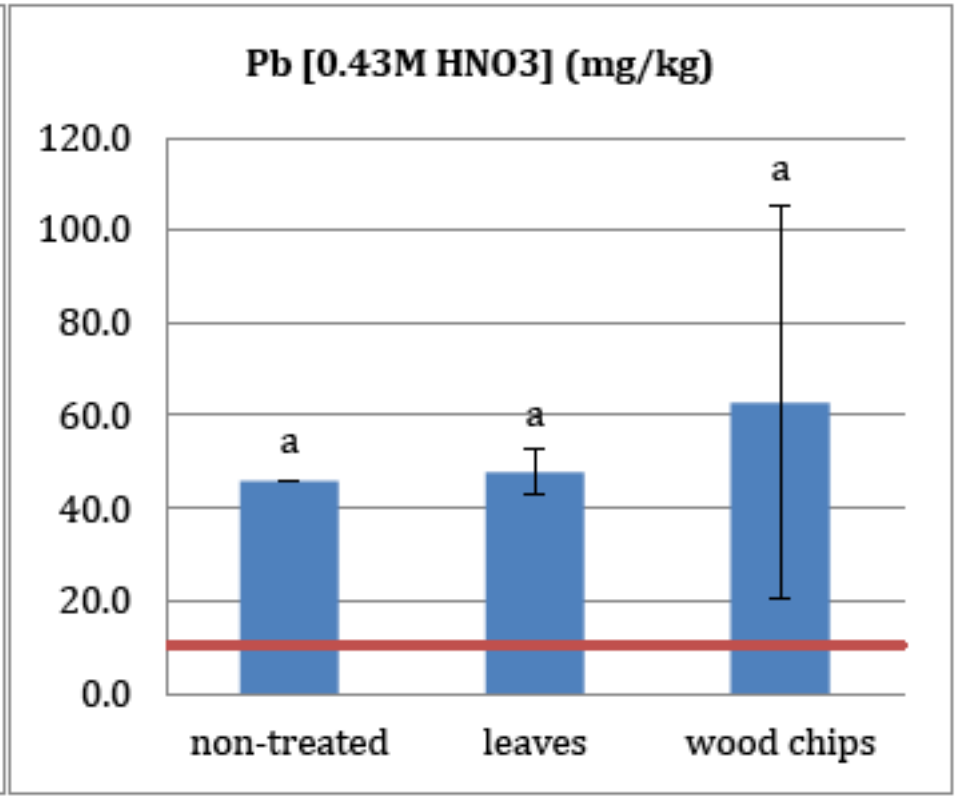
The red lines in the bar charts are the median metal content of sandy soils in the Netherlands (Mol et al. 2012). The reactive concentrations (in 0.43M HNO3 extracts) of five metals in different mulched soils were all above the normal value of Dutch normal sandy soils, but no significant difference was found between three treatments. The reactive Cd content doubled in mulched soils, which raised a concern about the metal accumulation during large quantity of mulching materials applied on the soils. The reactive Pb contents were around 50 mg/kg, which is normal (40~90mg/kg) for urban soils. Besides, the reactive Zn contents in three treatments were all about 15 times higher than the median level, which indicates a high zinc content in the original soils in DemoGarden. Considering the garden is rebuilt on an abundant fire hall, and water pipes is made of zinc, it is possible that zinc was released from waterpipe into soils.



Metal content cont…

However, despite the high level of reactive metal contents, the directly available metal contents (in 0.01M CaCl2 extracts) in two mulched soils were similar to non-treated soils and below the normal level of sandy soils in the Netherlands (the red lines). This is because that the large amount of organic matter creates more adsorption binding sites for metals, and combined with the neutral soil pH, the direct availability of metals in the soils decreased (Römkens et al. 2009), which indicates that there is no risk of metal contamination in DemoGarden.





Metal content cont…

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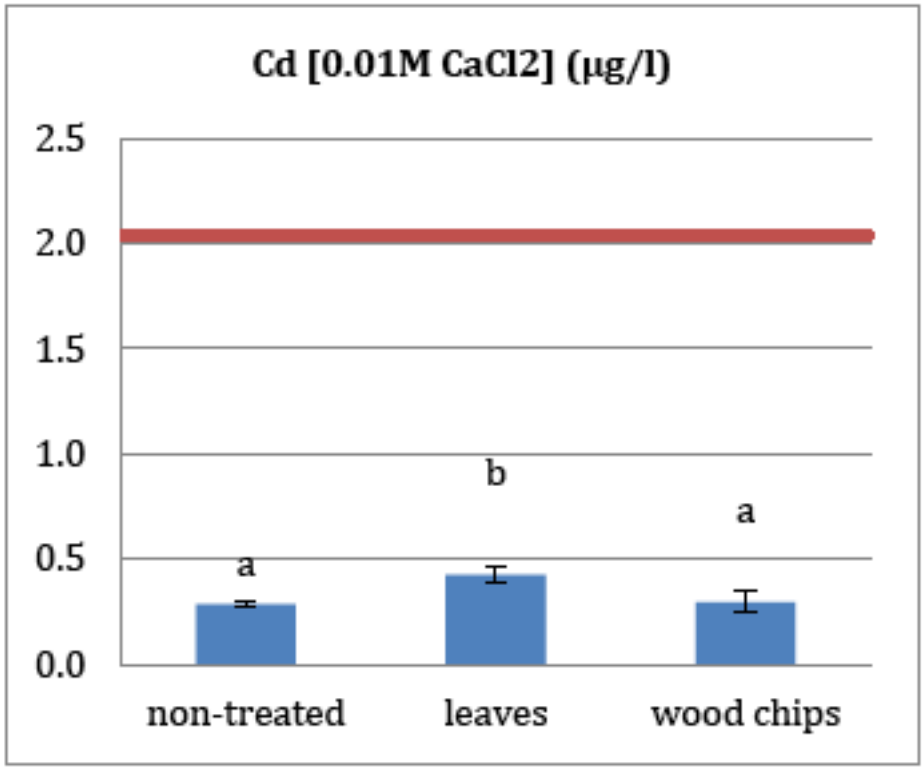
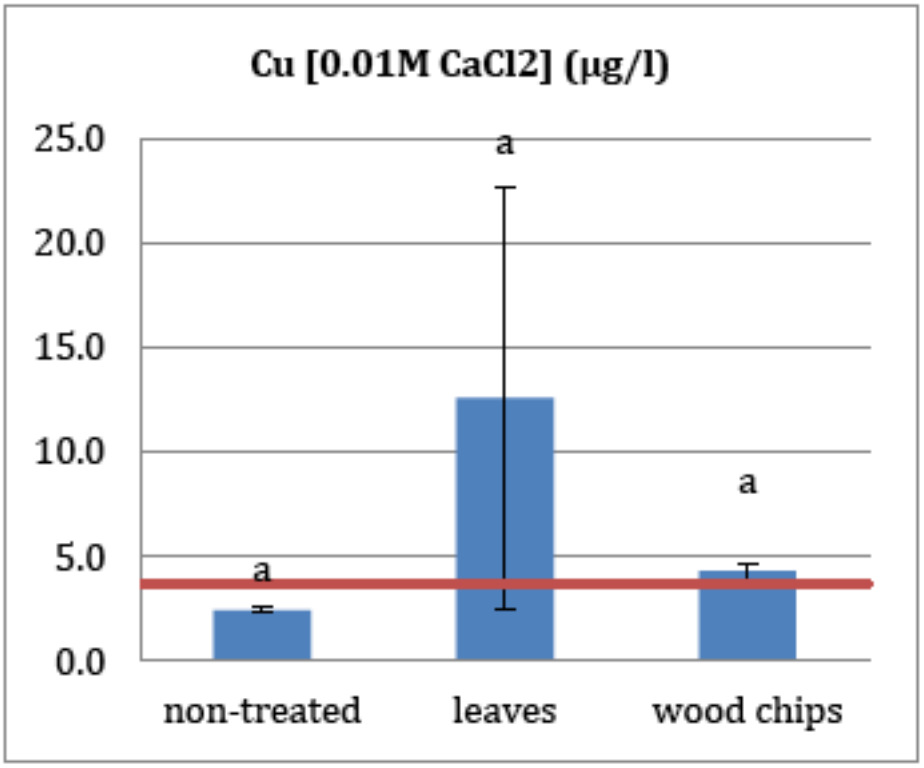
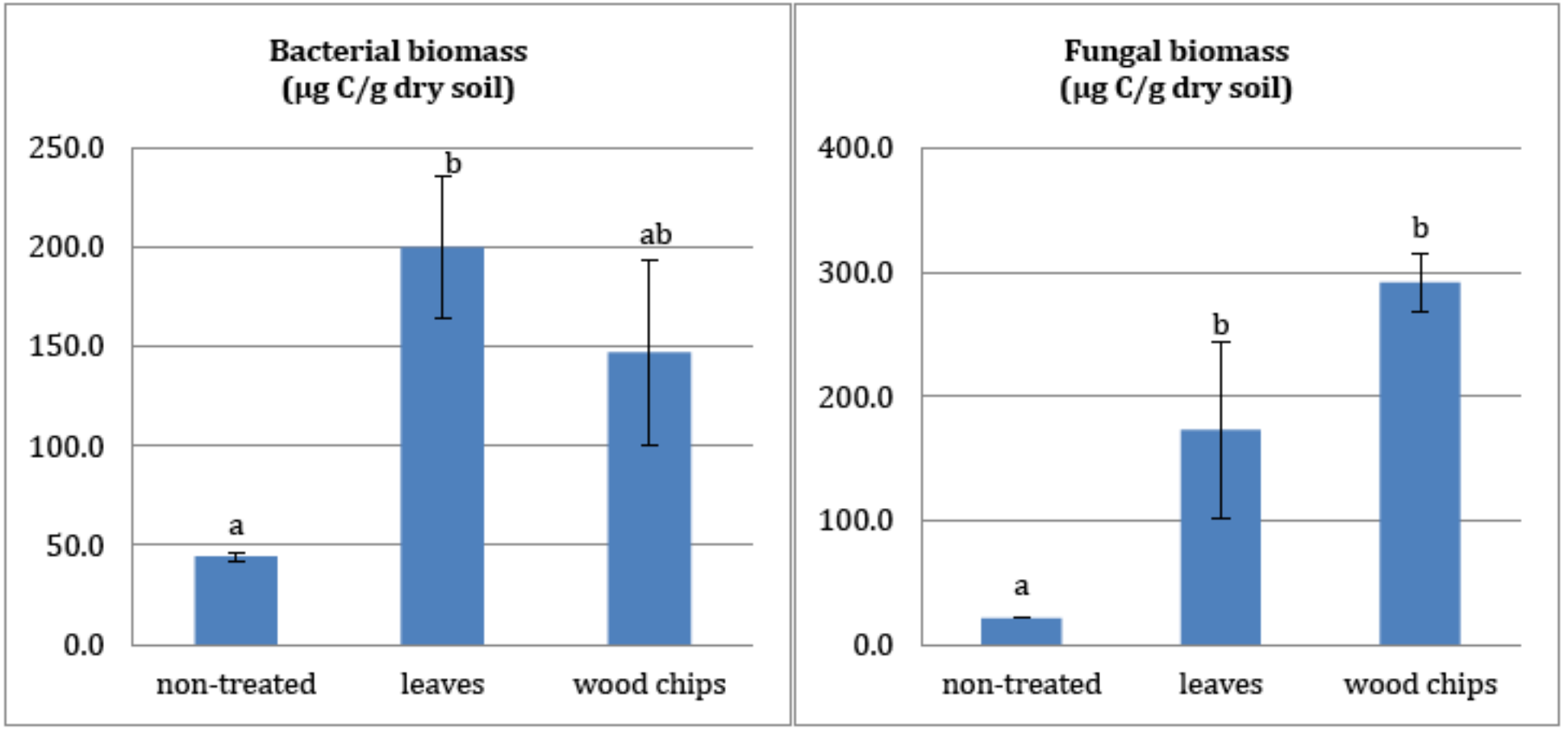




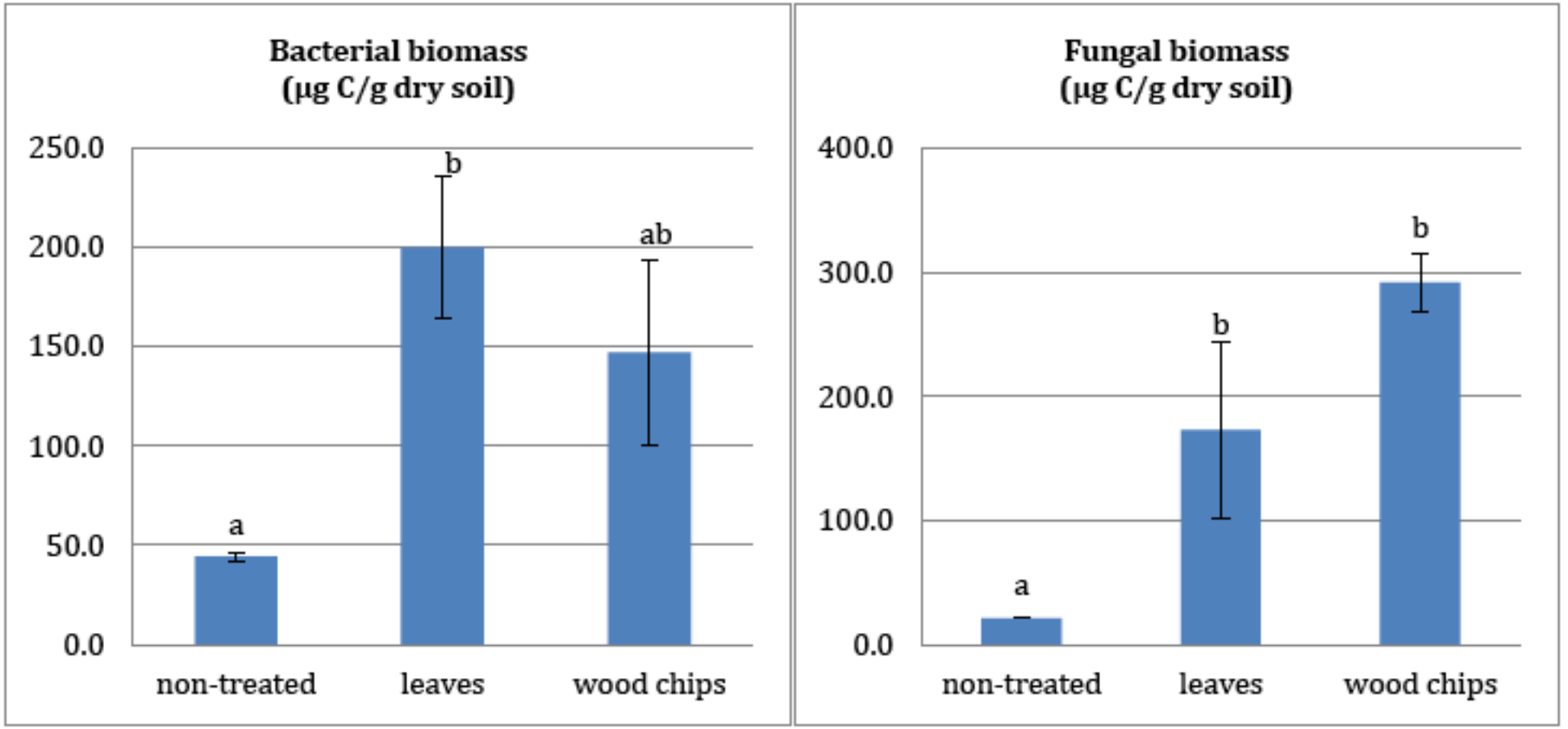
Micro-organisms

For non-treated soils, the bacterial biomass was 44 µg C/g dry soil, which was a little bit lower than the normal range of horticulture land on sandy soils (i.e. 52~144µg C/g), while fungal biomass at 21 µg C/g was within the normal range (16~35 µg C/g) (Rutgers & Mulder 2008)..



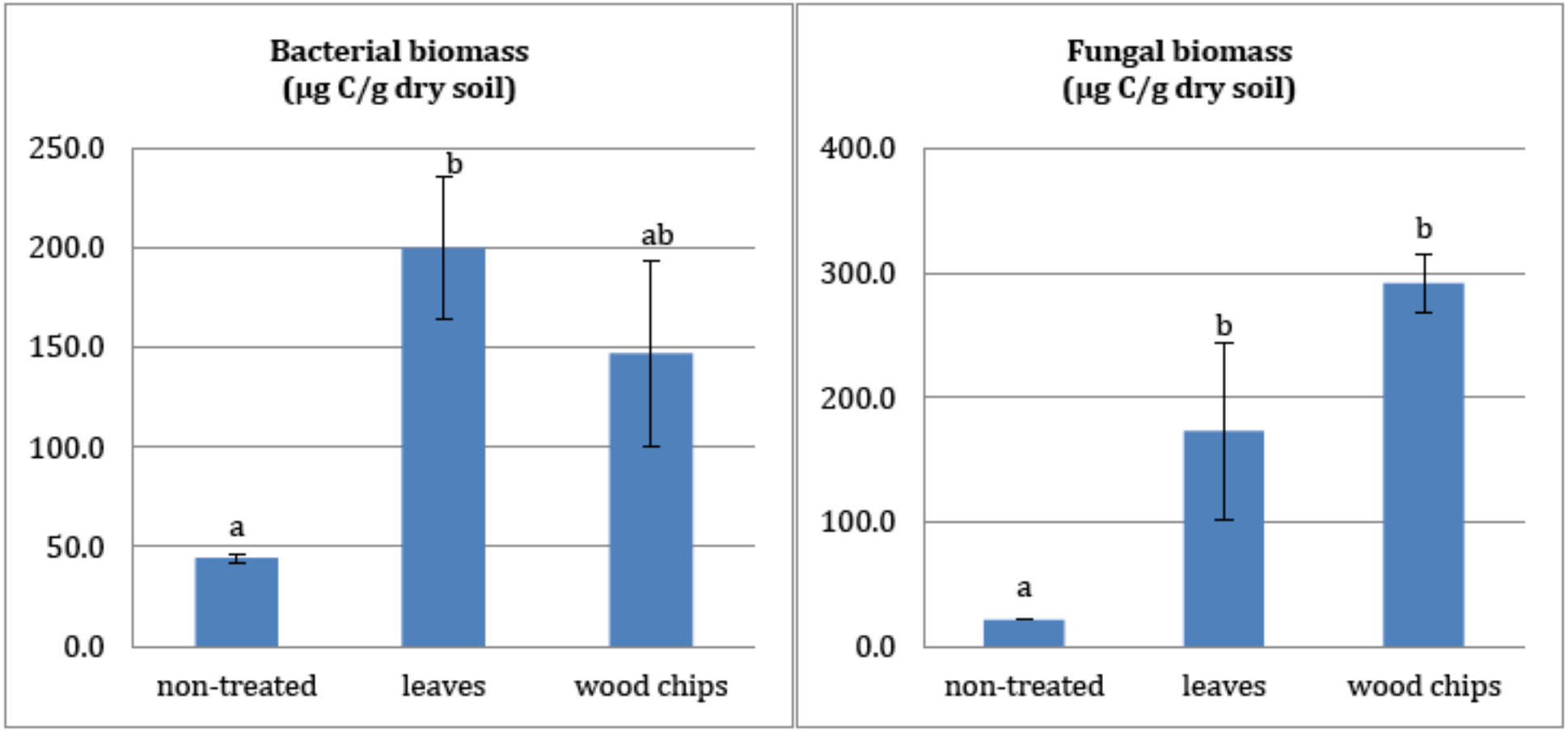
Micro-organisms cont...

Mulching with leaves and wood chips significantly enhanced bacterial and fungal biomass in the soils. The increase of microbial biomass in straw mulching soils was observed by Tu et al. (2006), who also attributed the high biomass to the improvement of carbon and water availability in mulched soils. Previous studies (Fließbach & Mäder 2000; Peacock et al. 2001) demonstrated that high amounts of organic input (e.g. mulching) often result in high microbial biomass. Apart from the quantity of organic material input, the quality (i.e. C:N ratio) is also of importance to micro-organisms, especially to the composition of microbiota.



Metal content cont…

Figure 16 shows that bacteria dominated in leaves mulched soils whereas fungi played a more important role in wood chips mulched soils. The quality of organic input is probably the main reason for the difference in two mulching systems. Due to their hyphal growth form, fungi can more easily uptake nutrients with a high C:N ratio (e.g. lignin in wood chips) into substrate, while bacteria prefer materials with a relatively low C:N ratio, such as leaves. Therefore, the preference of bacteria and fungi leads to the different dominance in two mulched soils.



Soil-building in action.

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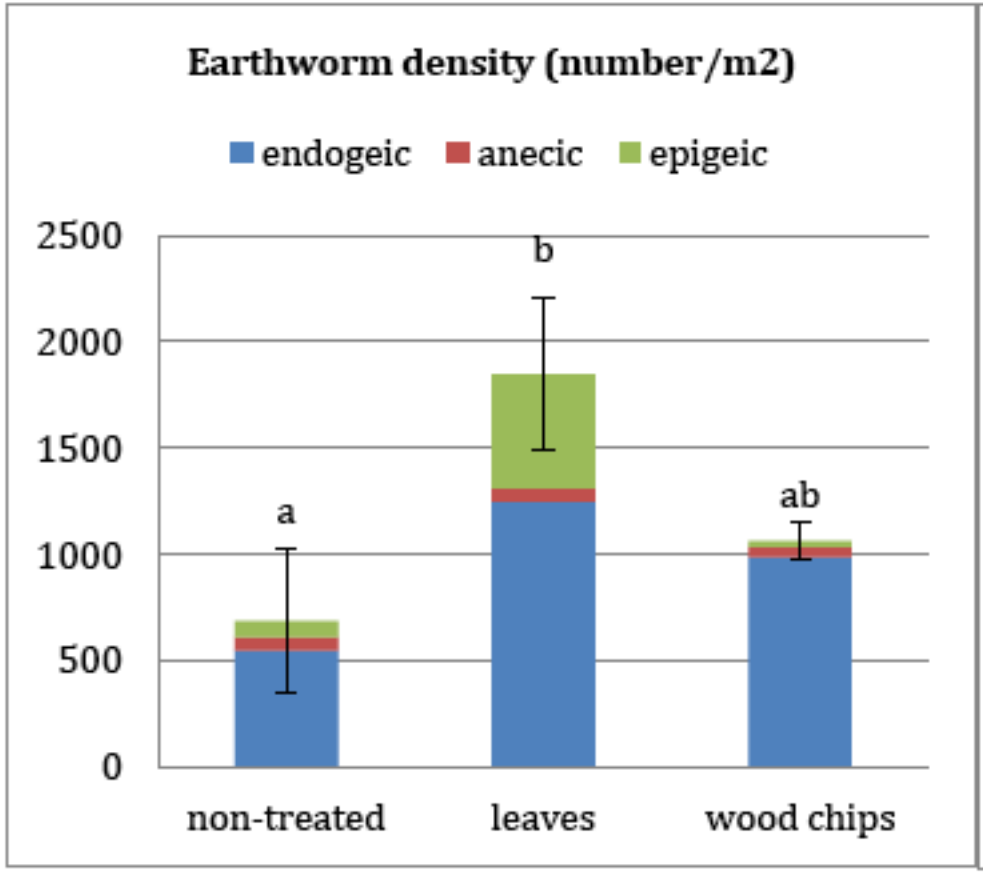
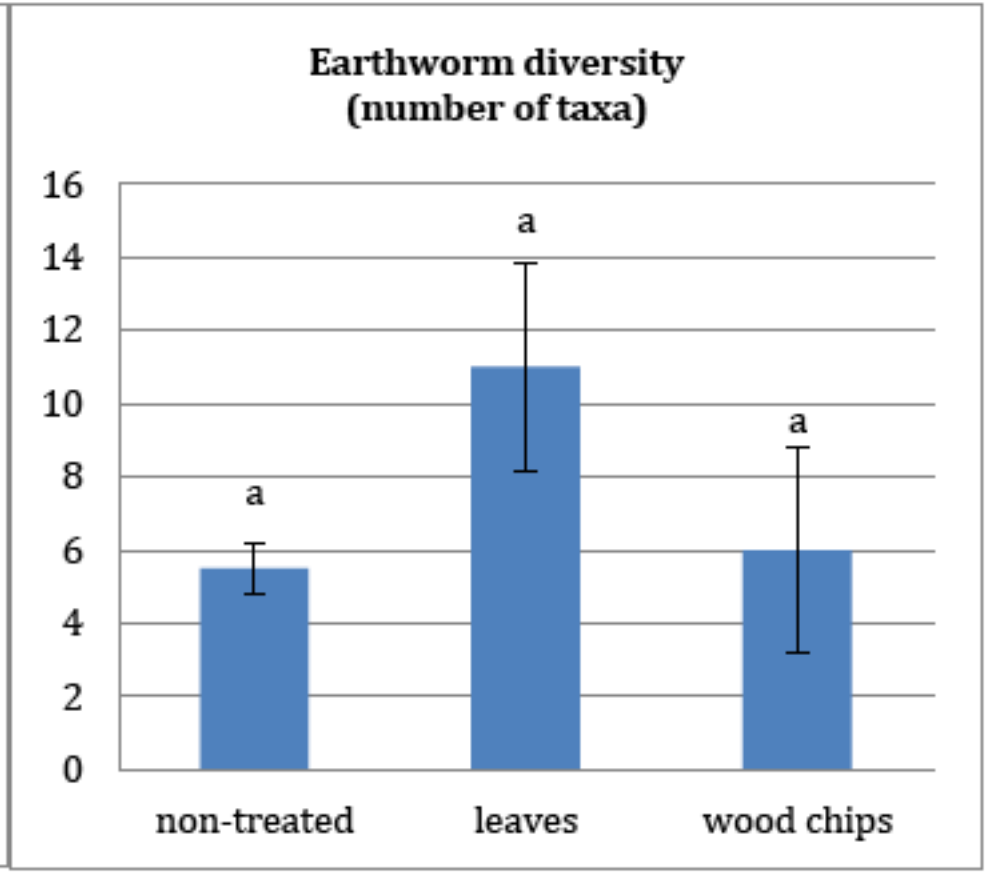
Soil-building in action.

oil-building in action.

Earthworms

Several studies showed that mulching can promote the build-up of earthworm populations probably through improving the soil micro-climate and providing food for earthworms (Tian et al. 1997). In this research, large amount of earthworms were found not only at the aspect of abundance but also at the aspect of diversity. Overall, the earthworm density of mulched systems was about 2 and 3 times higher than non-treated soils. Over 60% of the earthworms in DemoGarden were juveniles, which reveals a relatively vivid ecosystem. The leaves mulched soils had the highest earthworm density as well as the diversity, which were almost twice as high as the values of non-treated and wood chips mulched soils. In three systems, over 60% of earthworms were endogeic earthworm. However, compared to other two systems, in leaves mulched soils, more epigeic eathworms were found. This is because epigeic earthworms live on the surface of the soil and tend to feed on the leaves, and the leaves mulch provided sufficient food source for epigeics.





The effect of no-tilled mulching treatments in DemoGarden

In order to better integrate the results of individual indicators, the outcomes were presented in a cobweb chart (see below) using the AMOEBA method (Ten Brink et al. 1991). The cobweb chart shows the average results of the 27 indicators for two mulching systems in the DemoGarden, compared to the non-mulched system (reference). The value of each indicator in the reference was scaled to 100% (red cycle).

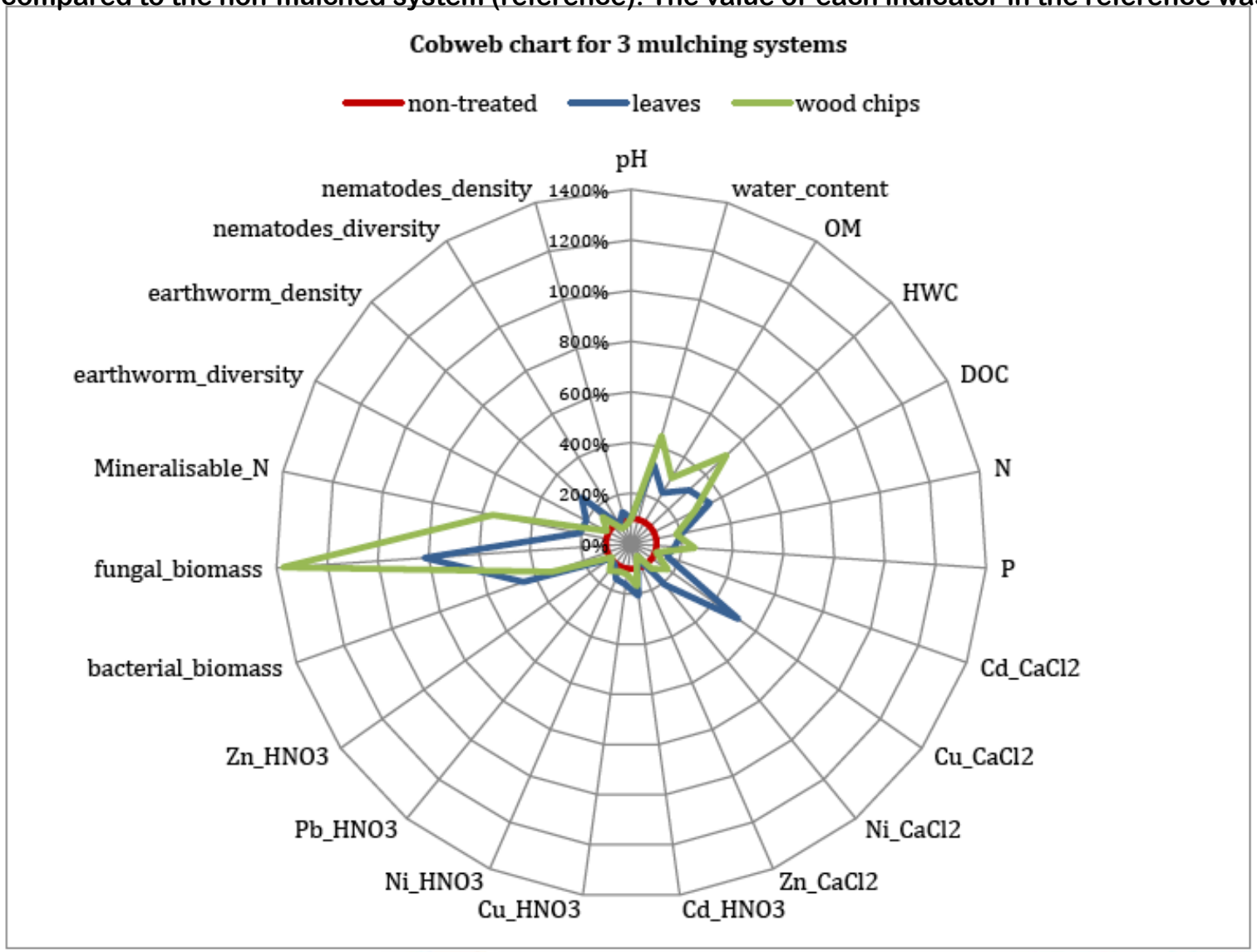
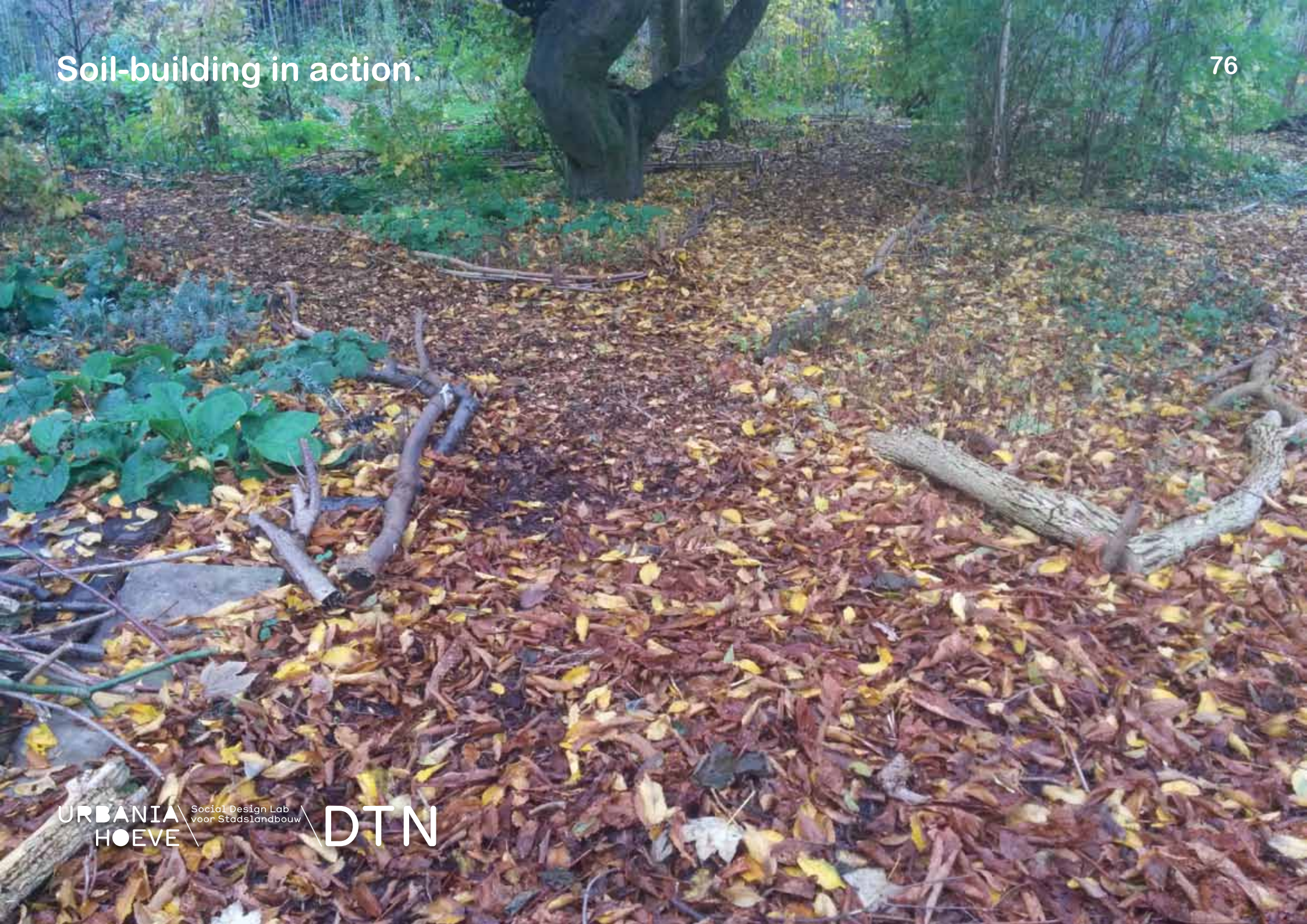


Figure 20 Cobwe

Soil-building in action.

Soil-building in action.

Soil-building in action.



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Soil-building in action.

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Soil-building in action.

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Entropical (December 13, 2015 - February 14, 2016): Zone 2 Source | Glazen Huis | Amstelpark | Amsterdam (images shown: REALBOTANIK) installation in cooperation with Jaromil Rojo



Entropical is a research project started in 2015, the UN international year of the soil. This first presentation of Entropical consists of four art works in which the value and dynamics of the exchange of materials in the biological world is set against the abstract value of algorithms and computer calculations.

Entropical plays with the concept of 'entropy', the second law of thermodynamics, a condition of constant change in which materials and energy are transformed. But the term is also used in cryptography, where it refers to algorithmic processes and abstract information. Entropical inquires into the incentive to produce ecological regeneration in an age in which running intensive computation (e.g. 'mining Bitcoin') yields far more value than soil production and ecological regeneration.

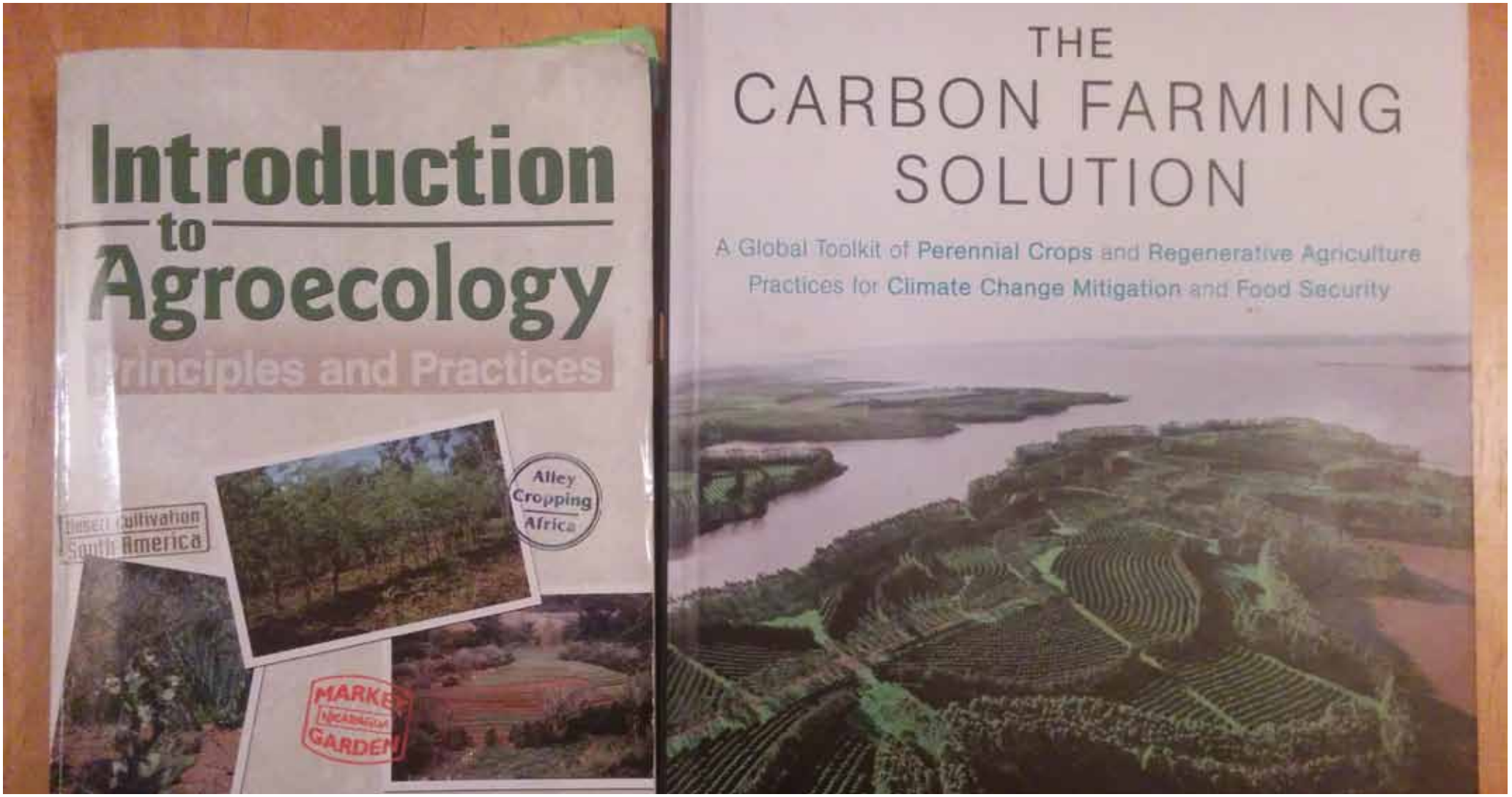
REALBOTANIK (in cooperation with Jaromil Rojo) Cardboard mats inoculated with oyster mushrooms grow mycelia using the heat released by a computer which produces blockchains, the technology behind the mining of cryptographic currencies such as Bitcoins. Heat as a by-product of our information industry is recycled to grow nutrients on abundant urban waste materials such as cardboard. The title 'Realbotanik' references the term 'Realpolitik', reflecting the deranged value attributions for resource exchanges within the soil organism and within computer networks. The protein rich mycelium mats that take shape will be used after the exhibition to restore poor urban soil with fungi, initiating soil health, the basis of a robust ecosystem.

Entropical is generously supported by Amsterdam Borough South Art and Culture, Amsterdam Foundation for the Arts, and the Stokroos Foundation

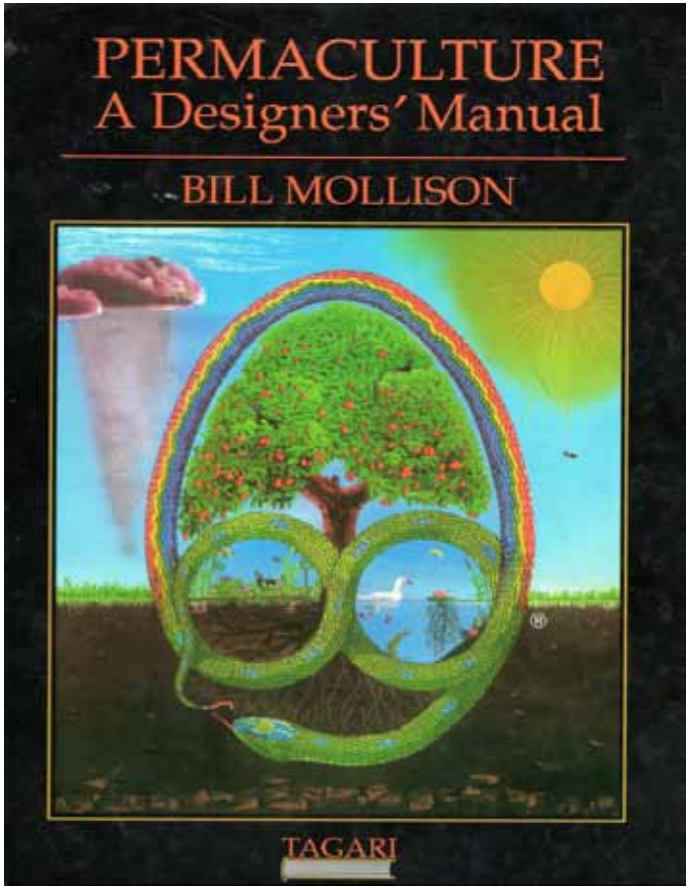
Entropical Public Programme
Tempeh workshop Friday December 11, 14 - 17.00h and Sunday February 7, 14 - 17.00h

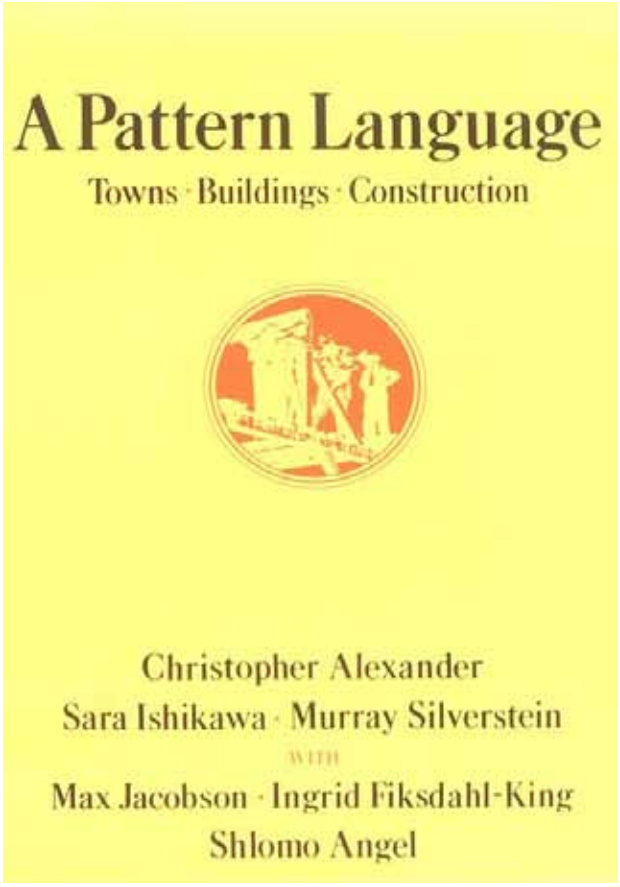
Opening and Presentation Sunday December 13, 14 – 16.00h
Finissage and Debate VALUES and YIELDS, Sunday February 14, 16-18.00h

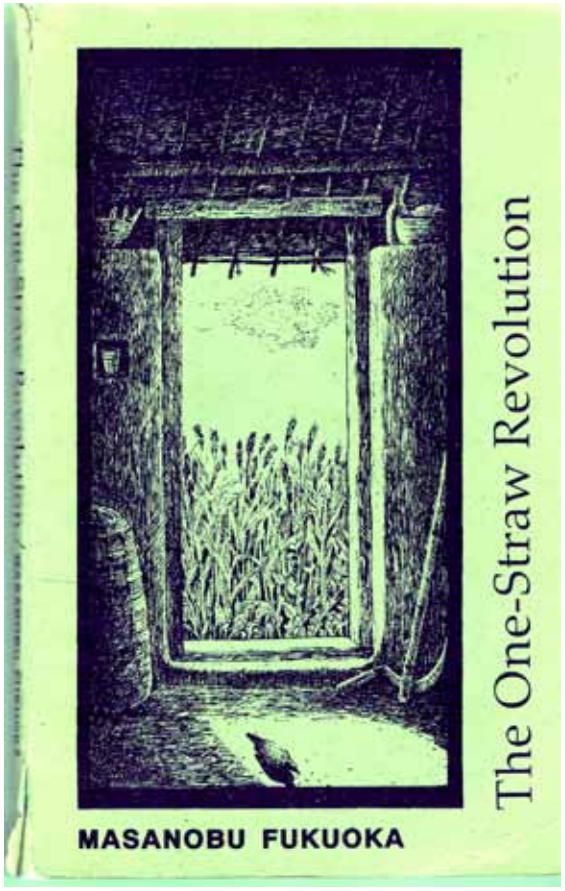
ESSENTIAL READING:
===>>> INTRO TO AROECOLOGY; PRINCIPLES AND PRACTICES, 2006, DR. PAUL WOJTKOWSKY.
===>>> THE CARBON FARMING SOLUTION, 2016, ERIC TOENSMEIER.

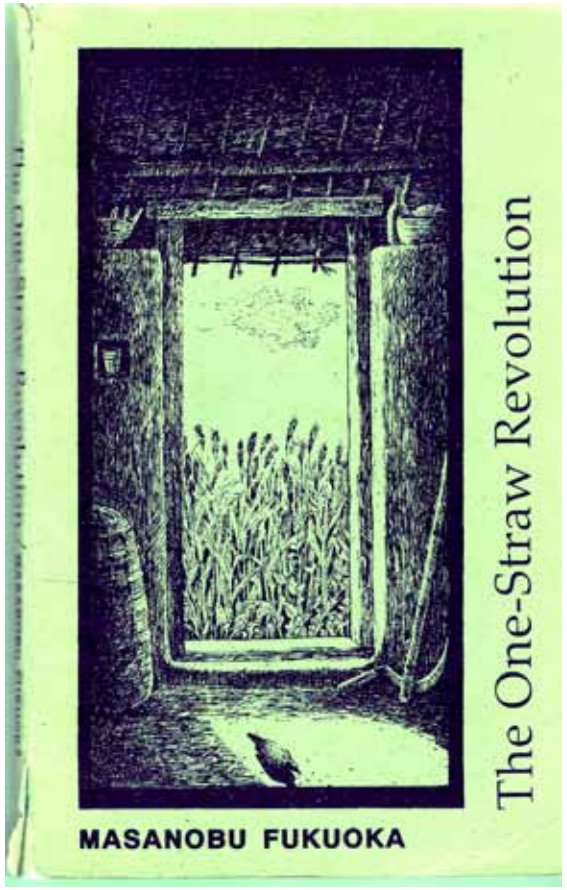


MORE ESSENTIAL READING:
===>>> ALEXANDER, C., E.A., 1977, A PATTERN LANGUAGE, OXFORD UNIVERSITY PRESS
===>>> FUKUOKA, M., 1978, THE ONE STRAW REVOLUTION, OTHER INDIA PRESS
===>>> MOLLISON, B., 1988, PERMACULTURE: A DESIGNERS' MANUAL, TAGARI PRESS

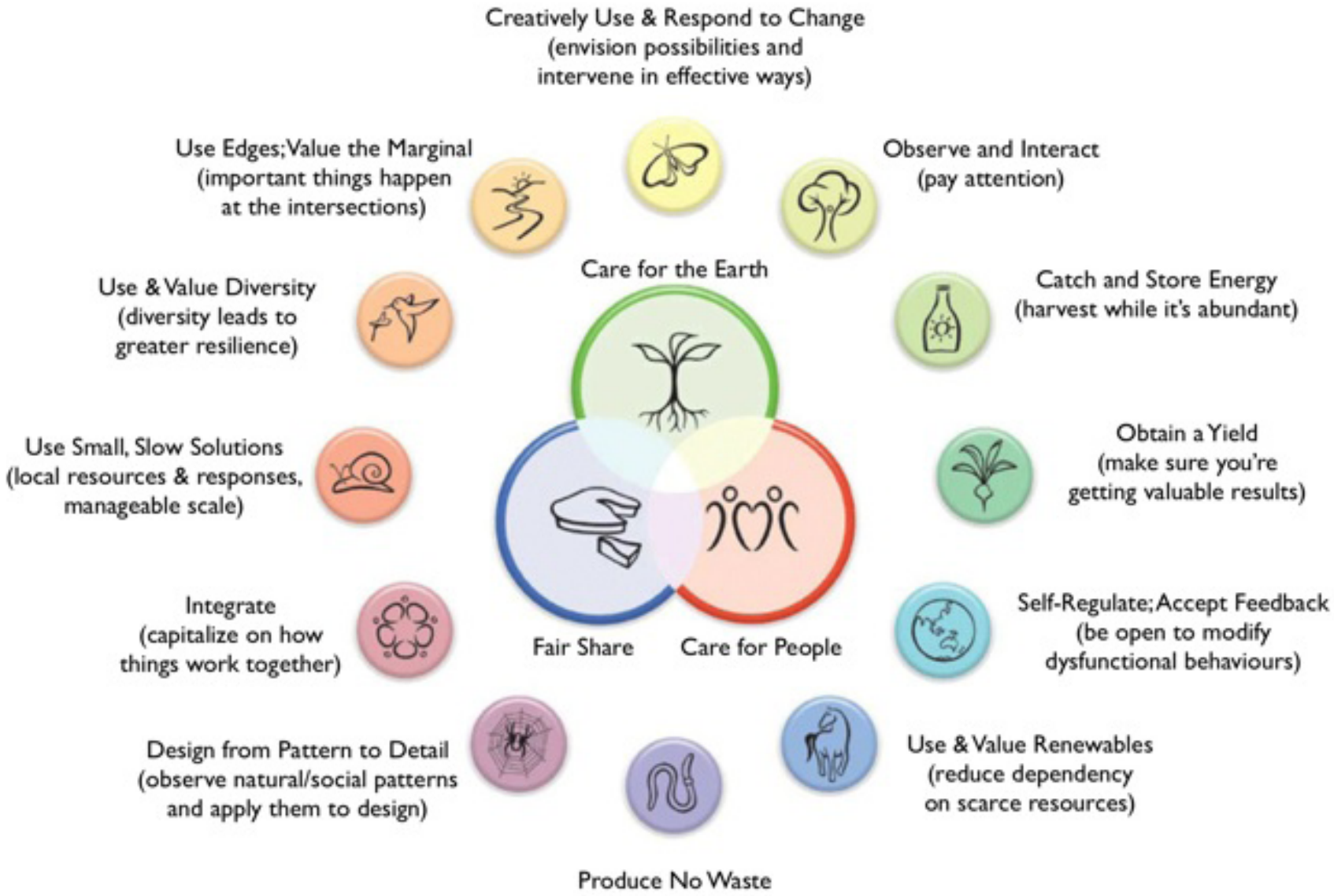







The One-Straw Revolution
MASANOBU FUKUOKA


IV


Creatively Use & Respond to Change
(envision possibilities and
intervene in effective ways)
Use Edges;Value the Marginal
(important things happen
at the intersections)
Observe and Interact
(pay attention)
Care for the Earth
Use & Value Diversity
(diversity leads to
greater resilience)
Catch and Store Energy
(harvest while it's abundant)
Use Small, Slow Solutions
(local resources & responses,
manageable scale)
Obtain a Yield
(make sure you're
getting valuable results)
Integrate
(capitalize on how
things work together)
Fair Share
Care for People
Self-Regulate;Accept Feedback
(be open to modify
dysfunctional behaviours)
Design from Pattern to Detail
(observe natural/social patterns
and apply them to design)
Use & Value Renewables
(reduce dependency
on scarce resources)
Produce No Waste

En Necromasse (April, 2015): (An optimistic fungal view on soil production)
A series of 5 screen prints 70 x 100 (Spore print, Forest Root, Mycelium), and 70 x 70 cm (Leaf skeleton - not shown)

En Necromasse: The art research of En Necromasse shows points of exchange in the world of the soil necromass (the dead materials of the soil), the area teeming with life and nutritional exchange in the topsoil and around the roots of plants. 'En Necromasse' aims to give perspectives on natural economies and realms of exchange that are not anthrocentric, but that are generated from the points of view of fungi, plants, and microbes.

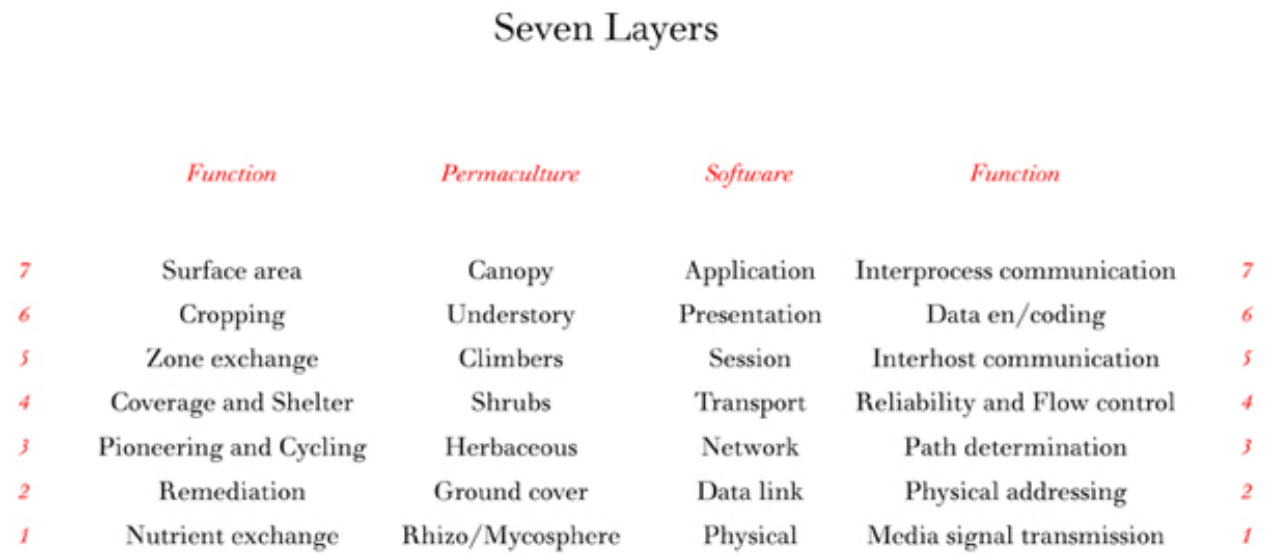
The En Necromasse screen print series has been generously funded by and is the result of my participation in an artist residency initiated by the Centre for Contemporary Art and the Natural World (CCANW) at Schumacher College in Devon (UK). From August 2014 to June 2015 the CCANW initiated 12 Soil Culture artist residencies aimed at an exploration of the importance of soil, coinciding with the United Nations International Year of Soils. Of the 12 residencies 9 were selected through an open call process that attracted 655 applications from 39 countries.
The Soil Culture Arts residencies are supported by Arts Council England, the British Society of Soil Science and South West Soils.

Art and Soil Culture UK traveling exhibition resulting from the Art and Soil Culture artist residencies.

2015:
Schumacher College, Dartington Gallery, Totnes [8 May - 19 June]
Create Centre, Bristol [6 Jul - 30 Aug]
Seale-Hayne, Newton Abbot [7 Sep - 18 Oct]
Hauser & Wirth Somerset, Bruton [14 Nov 2015 - 3 Jan 2016]

2016:
8 Jan to 21 Feb 2016 Eden Project, Bodelva
18 Apr to 5 Jun 2016 White Moose, Barnstaple
13 Jun to 31 Jul 2016 Peninsula Arts, Plymouth

Seven Layers (July, 2015): Created with media artist Jaromil Rojo. 70 x 100 cm screen print

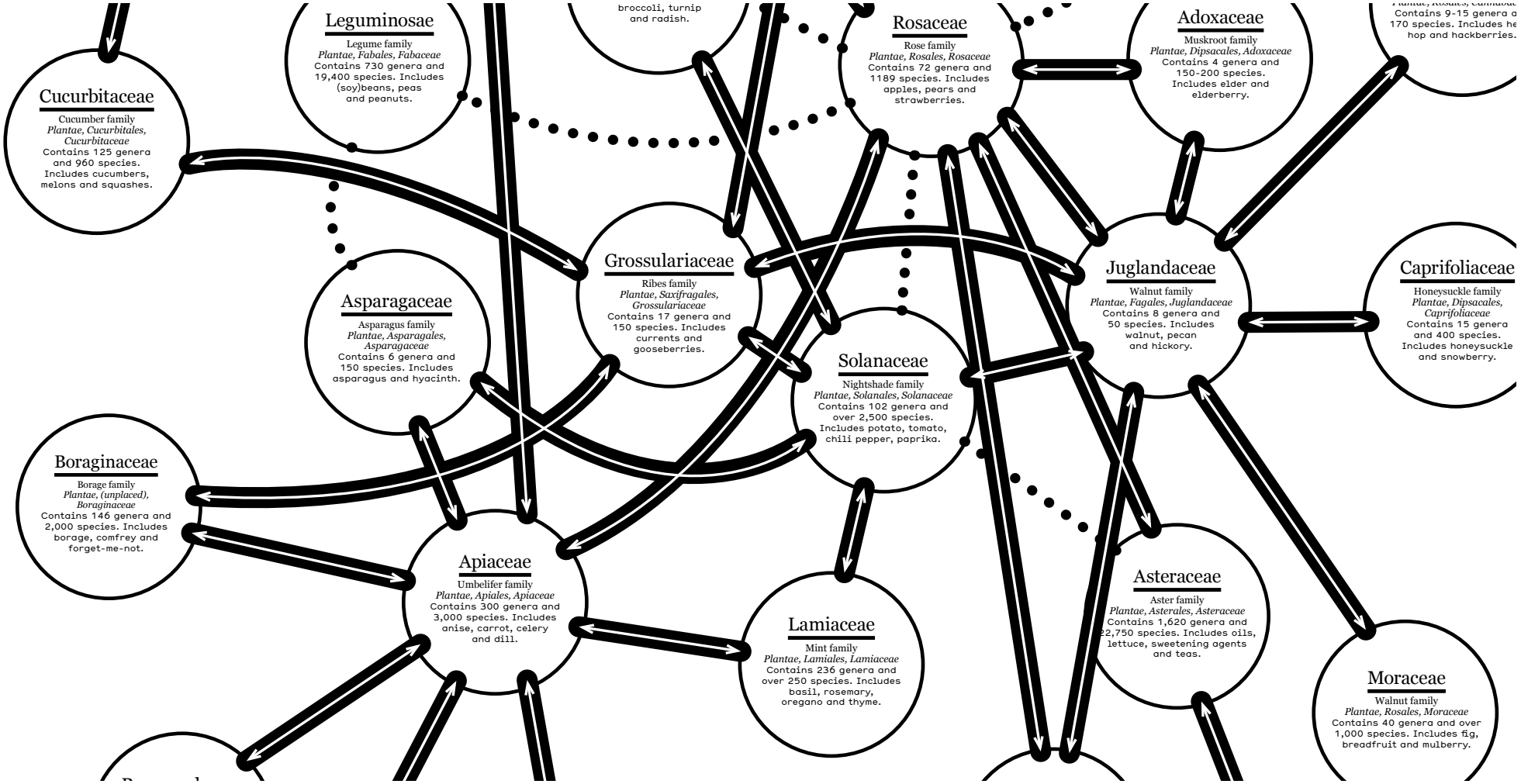


This typographical work by artist duo Solomon and Rojo juxtaposes seven layers of the forest garden (agroforestry / permaculture) with comparable layers of software architecture.

I DO EAT FLOWERS (February - July 2013): Land art installation, in situ seed exchange, and educational programme commissioned by Bureau Europa for the Sphinx Park, Maastricht, in collaboration with the United World College.

I DO EAT FLOWERS: On the footprint of a former ceramics factory, Bureau Europa (formerly the Dutch Architecture Institute at Maastricht) commissioned Urbaniahoeve to produce an installation and educational programme in a temporary park (Sphinx Park). The words I DO EAT FLOWERS were sown with green manures and bee forage, and left to go to seed for the season. In the autumn, the temporary park was returned to the municipality to become a parking lot (!) and local gardeners were invited to come and collect the seeds for their seed banks.

Plant Guilds Poster: (from 2011, ongoing translations and updates) in collaboration with Jaromil Rojo (Dyne.org)



The Plant Guilds poster, available in English, Dutch, Bulgarian, Turkish, Greek, Portugese, and Italian (the image shows a small selection of the total poster), and is exhibited and distributed widely. Last exhibited at ONE ARCHITECTURE WEEK 2015 (Plovdiv, BG - and generously supported by the Dutch Foundation for the Creative Industries.)

The Shipwreck: Land art installation, at ARCAM, Amsterdam Centre for Architecture (2011)
Commissioned by Farming the City Amsterdam

A demonstration of phytoremdiation techniques applied to polluted urban soils (courtesy of the Amsterdam Municipal Soil Bank). The title is a reference to the saying, 'The ship contains the shipwreck', but in this case indicates that the problem contains its own solution.

We posit that urban agriculture provides a platform for cleaning polluted and enriching poor urban soils through phytoremediation.

Urbaniahoeve is artist Debra Solomon (founder, director), art historian Mariska van den Berg (writer/researcher of bottom-up public space infrastructure), and historian Annet van Otterloo (producer and project doordinator of artist-initiated urban regeneration). Our critical spatial practice comprises action research, creating spatial planning visioning for municipalities, and working with communities to build an equitable, edible ecological framework in urban neighbourhoods.

Debra Solomon / debra@urbaniahoeve.nl
+31 6 2467 3969

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