



PERFORMATIVE NATURE

Barcelona International Landscape Architecture Biennial

September 2018 **Barcelona**

SCHOOL PRIZE

X International Landscape Architecture Biennial

Máster d'Arquitectura del Paisatge -DUOT - UPC

ETSAB- Escola Tècnica Superior

d'Arquitectura de Barcelona

Avenida Diagonal, 649 piso 5

08028 Barcelona-Spain

TECHNICAL DOSSIER

| | |
|--|--|
| Title of the project | Adaptive Planting Design: Requalification of the Garden of the Nursing School of Porto |
| Authors | Catarina Patoilo Teixeira |
| Title of the course | Internship |
| Academic year | 2016/2017 |
| Teaching Staff | Cláudia Oliveira Fernandes |
| Department/Section/Program of belonging | Department of Geosciences, Environment and Spatial Planning / |
| Landscape Architecture / Master's degree in Landscape Architecture | |
| University/School | University of Porto / School of Sciences |

Written statement, short description of the project in English, no more than 250 words

The garden of the Nursing School of Porto (NSP) was conceived in 1973. Today it displays a developed and mature green structure with remarkable trees that perform irreplaceable environmental, aesthetical and social services. The garden is located in Porto, Portugal, in an increasing urban context near important health and educational facilities. The passage of time and the relentless transformation of the city had some negative impacts in the garden: the limits changed, decreasing the available area, new functions were hastily implemented, and pavements and structures have become damaged; but the main problem, and most urgent to solve, was related to the phytosanitary condition of the green structure. A strong aphids attack was compromising the health of remarkable trees that were in danger of being felled, while deficient maintenance practices ruined the shrub layer. A requalification proposal was developed with the main focus of rehabilitating the green structure of the garden. Additionally, the overall conservation of the garden as well as the introduction of new functions was also taken into consideration. The main focus of this project was, thereby, the development of an Adaptive Planting Design approach introducing, into the garden, target plant species to solve green structure specific problems. This formula, based on literature review and on new approaches to planting design, defends that a more holistic knowledge of plant performance (simultaneously ornamental, aesthetic and ecological) allows to propose stable communities capable of self-regulating and regenerating, making it possible to multiply the services and maximize the performance of the vegetation.

For further information

Máster d'Arquitectura del Paisatge -DUOT - UPC

T: + 34 93 401 64 11 / +34 93 552 0842

Contact via email at: biennial.paisatge@upc.edu

Consult the web page <http://landscape.coac.net/>



Country / City

University / School

Academic year

Title of the project

Authors

Portugal / Porto

University of Porto / School of Sciences

2016/2017

Adaptive Planting Design: Requalification of the Garden of the Nursing School of Porto

Catarina Patoilo Teixeira





SECTION 1

SECTION 2

p1

p2

s1

p3

s2

PORTO
PORTUGAL

LOCATION

NSP

- Asphalt pavement
- Granite pavement
- Concrete pavement
- Concrete benches
- Lawn
- Meadow
- Flowery meadow
- Herbaceous
- Deciduous trees
- Evergreen trees
- Deciduous shrubs
- Evergreen shrubs





Quercus robur
NATIVE



The aphids' attack was first noticed in a large tulip tree present in the garden.



Michelia figo
AROMA



Betula alba
TEXTURE

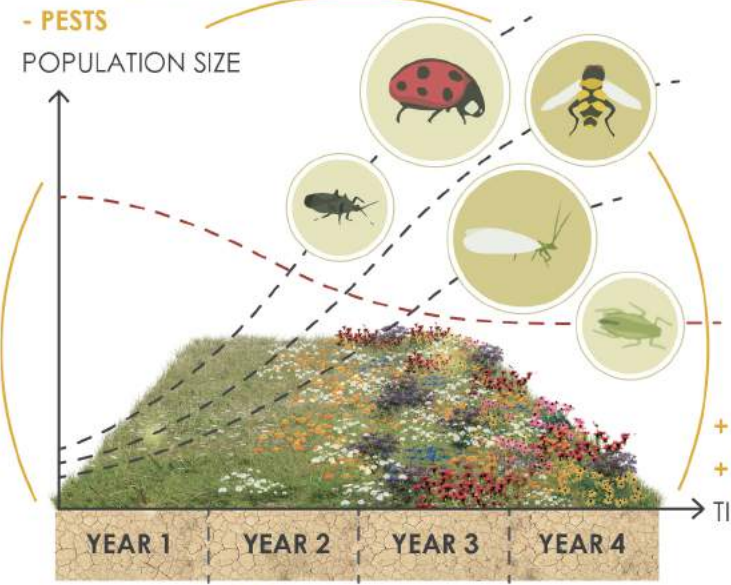


p1 photomontage:
flowery meadow with target plant species that attract aphids' natural enemies.



s1 simulation 3D:
new parking area, barrier from a loud and busy surrounding.

+ BENEFICIAL INSECTS
- PESTS



d1 diagram:
as the flowery meadow evolves, natural enemies will tend to rise and aphids' population will tend to decline.



SECTION 2



Fagus sylvatica
'Purpurea'
COLOR



Cupressus sempervirens
SHAPE



s2

simulation 3D:

new stay areas surrounded by
species assemblages selected and
designed for a restorative effect.



Pinus pinea
TEXTURE



p2

photomontage:

shrub compositions with different colors,
aromas, textures and volumes.



p3

photomontage:

multifunctional glade for students
activities and new pedestrian accesses.