

Country /City Germany, Gelsenkirchen-Ückendorf
University / School RWTH Aachen University, Institute of Landscape Architecture
Academic year Summer 2022
Title of the project Green-blue streets: green-blue Ückendorf
Authors Helen Radermacher, Marco Kämpgen, Felix Schweizer



TECHNICAL DOSSIER

Title of the project	Green-blue streets: green-blue Ückendorf
Authors	Helen Radermacher, Marco Kämpgen, Felix Schweizer
Title of the course	Design studio "Green-blue streets" (1 semester, 15 ECTS)
Academic year	Summer 2022
Teaching Staff	DrIng. Axel Timpe (LA), DiplIng. Sebastian Schlecht (LA), DrIng. Andreas Witte (ISB)
	Program of belonging Institute of Landscape Architecture (LA) in cooperation with Institute of
Urban and Transport Planning	(ISB), M. Sc. in Architecture, M.Sc. in Urban Planning, M.Sc. in Transport Engineering and Mobility
University / School	RWTH Aachen University





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

Ückendorf is a neglected urban area in the post-industrial city of Gelsenkirchen and is frequently confronted with stormwater events flooding streets and basements in the area. The Green-blue Ückendorf design proposal redistributes stormwater flows in the neighbourhood to increase the resilience against extreme events and to use rainwater as an element of urban design as much as possible. The existing stormwater flow paths are remodelled towards the park and integrated as open bioswales in the urban streets. While Bochumer Straße conserves its main function of guiding the traffic in North-South direction, the streets in East-West direction become multifunctional green-blue public spaces improving the liveability of the neighbourhood by combining slow traffic with water management and new plantations which make the city cooler. Existing open spaces are beyond the streets are redesigned to allow to temporarily store stormwater from streets and other sealed surfaces and integrated this function with playgrounds, urban gardening or space for biodiversity. The cleaner water flow of stormwater from roofs is partly stored in cisterns to be used for watering in urban gardening activities and a rainwater playground.

The strength of the project lies in a systemic integration and management of the different waterflows and a design approach which stages rainwater in public spaces for improving the quality of life of the neighbourhood. Three highlights of this design approach are the urban gardening square at Bochumer Straße, the schoolyard in Stephanstraße and the rainwater playground in Munscheidstraße.

For further information

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Barcelona

November 2023

SCHOOL PRIZE

QUARTER ENTRANCE NORTH PLAYGROUND BOCHUMER STRASSE 8 SCIENCE PARK WATER PARK ELEMENTARY SCHOOL SOCIAL CENTER UCKENDORF STEPHANSTASSE QUARTER ENTRANCE SOUTH

DESIGN

MASTERPLAN

- ① QUARTER ENTRANCE NORTH
 - 1 Extension sea near streets
 - ② Urbane fountain
 - 1 Accessibility park
 - 2 Bike-sharing
- ② BOCHUMER STRASSE
 - Retention area arking area church
 - ① Upgrading church forecourt
 - Social street interventions: Cafes, restaurants, reatail
 - 30-speed-zone Bochumer street
 - Foot crossings and sidewalk widening
- SOCIAL CENTER ÜCKENDORF
 - 4 Retention area
 - (5) Urban fountain
 - 3 Urban gardening
 - 4 Green seating island
- QUARTER ENTRANCE SOUTH
 - (5) Conversion bunker
 - 6 Supermarket & cafe
 - 5 Visible train station
 - 6 Bike sharing
 - 7 Parking & car sharing
- (5) STEPHANSTRASSE
- Road-accompanying trough tranch
- One way street
- 9 Bikeway
- Parking

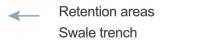
- © ELEMENTARY SCHOOL
 - Retention area
 - Upgrading school grounds
 - Public outdoor sportsfield
 - 1 Dop-off zone
- - 8 Retention area
 - Water playground
 - Playground
 - Bike-street
- ® SCIENCE PARK
 - Promote biodiversity
 - Upgrade recreation area
- - 10 Retention area
 - Road-accompanying trough tranch
 - Upgrade playground

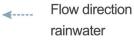
urban water bioswales 🐫 playground cooling / evaporation Tree ditch urban fountain water playground bioswales - 🎍 Tree ditch

Unsealed parking area bioswales -Valorization playground Biodiversity P Park recreation Tree ditch Sports field green center i had water playground Solar system Trough trench Solar system green streets * Biodiversity Tree ditch

INTERVENTIONS

BLUE





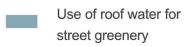




Retention area



Decentralized infiltration











Cooling/ evaporation





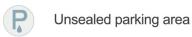
Playground



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Urban gardening





Biodiversity

INTERVENTIONS

GREEN





Existing street green Extend street green



Public green



Privat green



Green roof



Urban gardening



Photovoltaics area



Tree ditch



Bioswales



Urban fountain



Gravel liner



Playground



Park recreation



Sports area

WATER PARK

