



# REL22

*reinventing  
energy landscapes*

International IDEA League  
Summer School at Hambach

18.08.22 - 27.08.22

preliminary program  
update february 15<sup>th</sup>

organized by:



in cooperation with:



funded by:



supported by:



# **REL22** re inventing energy landscapes

## **STARTING COOPERATION** re inventing energy landscapes

REL22 is an international summer school program launched by the Institute of Landscape Architecture of RWTH Aachen University (Prof. Frank Lohrberg, Silvia Beretta) together with the Master's Programme in „Landscape Architecture and Landscape Heritage“ of Politecnico di Milano (Prof. Antonio Longo) and the Master's Programme in “Landscape Architecture” of TU Delft (Prof. Laura Cipriani). The aim is to formulate useful and stimulating visions that can inspire local stakeholders involved in the landscape transformation of the Rhenish Lignite District, in particular around the Hambach open pit mine.

The program is funded by IDEA League.

## **THE CONTEXT** a future green heart in the middle of Europe

The summer school will engage participants in an international, multidisciplinary setting with a specific focus on the structural change (**Strukturwandel**) taking place in the Rhenish District (Rheinisches Revier), the **largest open-cast lignite mining area in Europe**, located in the German region of North Rhine Westphalia.

Here, for more than a century, vast areas of the landscape have been “turned upside-down” to extract brown coal at large scale, thereby sacrificing pre-existing rural landscape patterns, established villages, natural habitats and some of the most fertile soils in Germany. These **far-reaching spatial restructuring processes** have been occurring up to the present day, primarily as the result of lignite mining and subsequent land restoration and they have led to major changes in the landscape mosaic. The Rhenish District, with its three active open pits, yields roughly half of German brown coal production. The **coal**

**phase-out process** initiated in Germany, as in other European countries, will strongly affect the area over the next two decades and will open up new pathways for its economy, its territorial development and the daily life of its inhabitants.

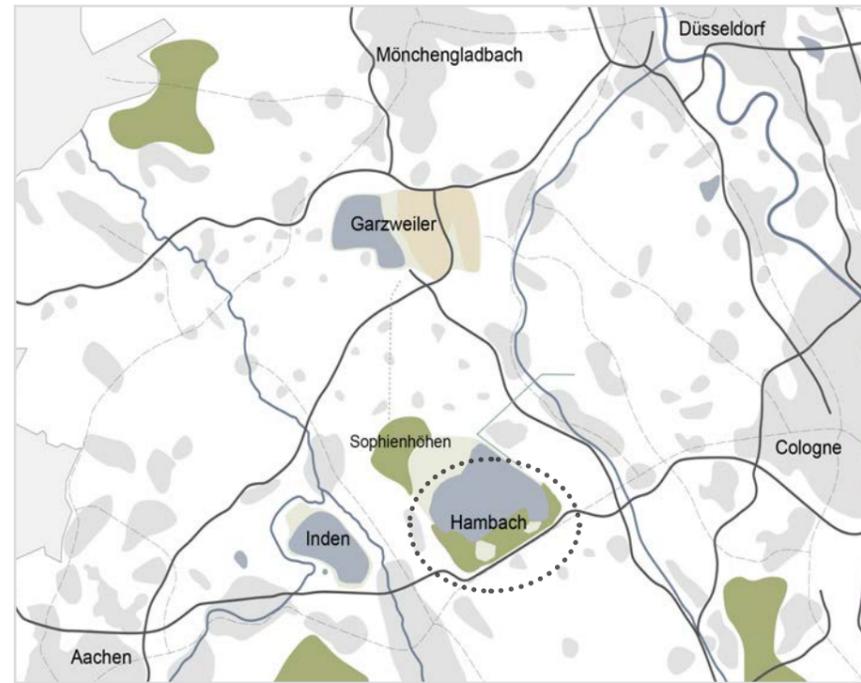
In this respect, current global debates on the sustainability agenda can be considered within the context of a **huge living laboratory** within the region. This involves multiple local, political and economic actors, working together with different research institutions. The economic and territorial transformation process which has been initiated requires a move from fossil-based value chains to bio-based and circular ones. Furthermore, these transformations will potentially serve as an **example to other European regions**.

The landscape area of the Rhenish District lies between the **very dynamic urban region along the Rhine** (with Cologne, Düsseldorf and Bonn) and the neighbouring cities of Aachen and Mönchengladbach. Significant population growth is expected here in the coming years.

**Three artificial lakes** are to be created following the end of open-cast mining operations.



Rheinish District  
between Aachen and Cologne  
with three future lakes



This provides a unique opportunity to create a new, positive image for the former mining area, thus establishing a new role for it within an extended urban region. The ambition is to create a new „**green heart**“, in the middle of one of the most industrialized and densely inhabited parts of Europe. To achieve this, it will be necessary to develop new **multifunctional and productive landscapes**. These must be capable of delivering ecosystem services alongside inhabitation/settlement, renewable energy, agriculture/forestry and to establish a network of sustainable recreational activities focused around the newly created lakes.

**REL22** will be an international student design workshop, where visions of potential new landscapes will be produced, assessed and discussed with **local stakeholders**. Through a more holistic approach, technical-economic issues will be considered together with ecological and cultural ones. This process will integrate the disciplines of landscape architecture and planning with more sectoral ones.

## THE CHALLENGE around Hambach open cast mine

The summer school will focus upon the southern edge of the **largest of the three active open-pit mines**, Tagebau Hambach. Mining started here in 1978 and it occupies most of the area that once belonged to the forest bearing the same name. A total area of 85 km<sup>2</sup> was originally designated from the government of North Rhine-Westphalia for lignite mining in Hambach. However the new German climate policy, combined with the virulent protests by civil society initiatives and international environmental groups, have led to a reduction in excavation plans in order to save the **last remains of forest**, located just south of the mine.

These **protests** have become, more generally, a symbol of resistance against lignite mining, coal-fired power generation and the associated climate pollution, casting an international media spotlight on this otherwise unremarkable corner of Germany. Thanks to the „Leading Decision: New Perspectives for the Rhenish Lignite Region“ issued in March 2021 by NRW, not only a part of the forest but also one of the villages destined for demolition has been **spared from mining**.

The last quarry operations are proceeding here along a northerly to southerly axis and are leaving behind a completely altered topography as a legacy. About 0.3 Km<sup>3</sup> of soil is being removed here annually. By the end of the coal mining process in **2029**, coal and soil with a volume of about 18 km<sup>3</sup> will have been extracted.

**Sophienhöhe** (302m), the spoil mound created with waste materials from the excavation, is one of the highest artificial hills in the world. **Lake Hambach**, the artificial lake that is planned to occupy the hole produced during the mining of lignite, is envisaged to cover an extent of about 4.000 Ha and have a depth of 400 m. It will potentially be the deepest and (by volume) the second largest lake in Germany after Lake Constance.

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## **THE DESIGN TASK** during the on-site Workshop

Filling the open pit is expected to take **several decades**.

Studies for using both solar and wind energy and the gigantic water volume of the lake as an electricity storage facility have been carried out. In addition to the technical and economic challenges that the construction of such facilities presents, the question of **how to design the infrastructure within the landscape** remains unresolved.

Beyond energy alone, a shift in thinking from monofunctional visions of landscape to **multifunctional** ones is required. The process must forge a positive new identity for this region as a whole, which has previously been exploited mainly for economic purposes.

The design task will be to **reinvent energy landscapes** that combine in a “harmonious way” energy production, new settlements and traditional and innovative agricultural uses with the production of ecosystem services.

Ideally, in a hundred years’ time, they should be considered by future generations as being valuable **“cultural landscapes”** i.e. landscapes in which it is desirable to live, to work and to spend leisure time.

This challenge precisely will be tackled by the international group of students, experts and lecturers during the *REL22* design workshop.



## A FULL PROGRAM

### Introductory Webinar (19.05.22)

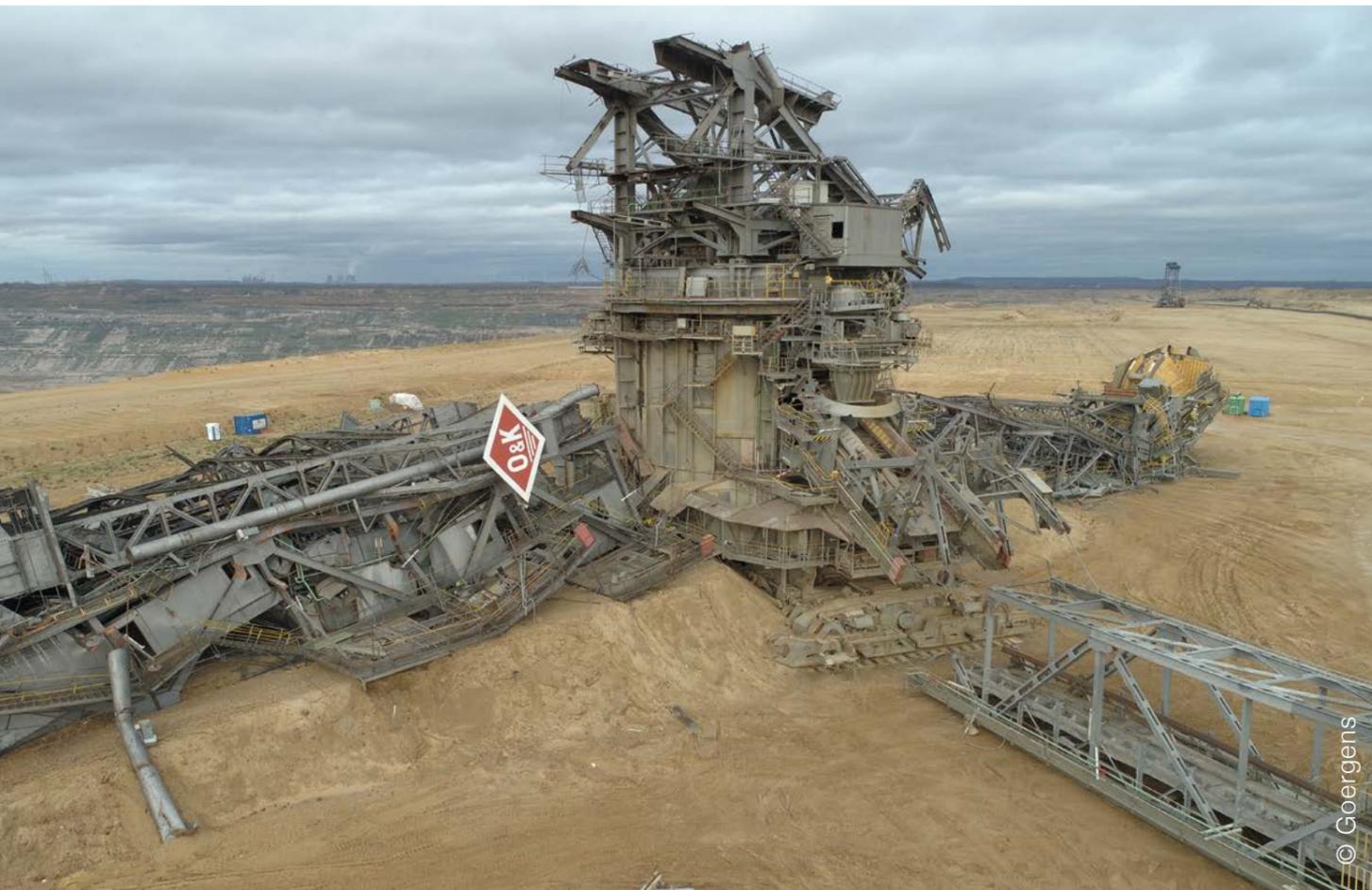
The first part of the programme will be held in a digital format. In an **intensive, one-day webinar** the participants will have the possibility to get to know more about each other and about their quite complex design task. Preliminary lectures from University lecturers and local stakeholders will provide an **overview on the “status quo”** and upon future challenges regarding the ongoing spatial-physical transformations of the site and also its socio-economical dimension.

### Thematic Dossiers

Students will then be asked to **prepare “in-depth” dossiers** on particular thematic aspects to be used as a **shared basis for work** during the subsequent on-site workshops.

### On-site Design Workshop (18/27.08.22)

The **Design Workshop** will be the core of the summer school. It will take place during an active period of nine days which will be spent together. This will be based around an old Train Station in the village of Buir, located just a few kilometres far away from the still active open cast mining site of Hambach. These days will be characterized by **field trips, brainstorming and group discussions, drafting of projects, reviews and internal presentations**. The work will be organized in groups made up as much as possible from different backgrounds and disciplines. The resulting projects and visions will be presented to the local stakeholders in a **public event** at the end of the workshop.





Applications are open until 18.03.22

Please send a one-page motivation letter, short CV & Portfolio to:  
**rel22@la.rwth-aachen.de**

### Why an international summer school here

Bringing together different Design and Planning cultures and different approaches to large scale landscape transformation from the different countries will help to **find innovative solutions** for the Rhenish District.

In addition, the participants will be confronted with **highly topical issues** and they will be able to draw a wealth of knowledge from this experience that can also be applied to their own geographical situations.

### Who is this programme for

The programme is open to students of **Master's level courses in Landscape Architecture, Architecture and Urban Planning** of the **IDEA League** and **ASPIRE** League partner universities. **PhD** research students who are interested in the topics of the programme are also welcome to apply.

Applications from students of non-partner universities and from other master programs will be only **exceptionally** accepted. A total of about 32 Students will be eligible to participate.

**Pre-selection of candidates** will be carried out by the beginning of April 2022.

### Financing

**No registration fees** are required. Expenses for on-site overnight stays and main meals as well as venue rental costs for the workshop are **funded by IDEA League**. Travel expenses will be reimbursed by the respective partner universities.

### Credits

Credit points may be awarded to those who complete the entire programme. For further information, please contact your university directly.

## INTRODUCTORY WEBINAR | 19.05.22

preliminary program

10.00 Welcome & Opening

Prof. Frank Lohrberg\_RWTH Aachen  
Representative of Kerpen Municipality  
Erik Schöddert\_RWE  
Representative of BDLA

11.00 Creating Heritage Landscapes for tomorrow  
Prof. Antonio Longo\_Politecnico di Milano

11.20 Landscapes of crisis and opportunity  
Prof. Laura Cipriani\_TU Delft

11.40 First visions for Hambach  
Matti Wirth\_Neuland Hambach

12.00 Towards an ecosystem service landscape

13.00 - 14.00 Lunch Break

14.00 Meeting & Working

Introduction to the Summer School and preliminary assignments  
Silvia Beretta + Katharina Christenn\_RWTH Aachen

Technical and operational framework in Hambach  
Christian Eling\_RWE



Morning event open to the public!

For further information, please visit: [www.la.rwth-aachen.de](http://www.la.rwth-aachen.de)

**ON SITE DESIGN WORKSHOP**  
**18.08.22 | 27.08.22**

preliminary program

**18.08 Welcome & Organisation**

4.00 pm Arriving at the Old Train Station of Buir  
(Railroad Tracks Studios, Bahnstraße 49 Kerpen-Buir)  
and reaching the guesthouses

6.00 pm First meeting the Old Train Station

7.30 pm Dinner

**19.08 Field Trip**

9.00 am Old Train Station  
Visit to the open cast mine of Hambach with RWE

12.30 am Self organized pic-nic and futher on-site  
exploration in teams (e-bike evtl. on disposal)

7.30 pm Dinner

**20./25.08 Working Days & Trips**

9.00 am Meeting at the Old Train Station of Buir  
Working in teams and with the tutors

Futher self-organized on-site explorations (e-bike evtl. on  
disposal)

7.30 pm Dinner

**23.08 In-Between Presentation**

10.00 am Old Train Station  
Presentation and discussion of the design projects  
together with lokal stakeholders

**26.08 Public Presentation & Farewell**

10.00 am Old Train Station  
Public presentation of the projects and open discussion  
with local stakehoders

12.30 pm Farewell Aperitivo

3.00 pm Cleaning up

20.00 pm Self-organized dinner

**27.08 Breakfast & Goodbyes**

**Extras**

In agreement with the tutors will be possible to carry  
out self-organized one-day trip to Aachen, Düsseldorf or  
Cologne.

*Railroad Tracks Studios* are offering a 2 hours workshop  
„How to produce a Pop/Rock Song“ on demand (extra fee)

**ON SITE DESIGN WORKSHOP**  
**18.08.22 - 27.08.22**

Lecturers and tutors



**Silvia Beretta**

is a landscape architect who works as research associate at the Institute of Landscape Architecture of RWTH Aachen University since 2016. She studied Architecture at Politecnico di Milano and TU Delft and obtained a postgraduate degree in Landscape Architecture from the University of Genoa (2001). She has taught as adjunct professor for Landscape Architecture at Politecnico di Milano (2006-2012) and has worked as research associate at Accademia di Architettura in Mendrisio (2007-13). She is co-founder of beretta kastner landschaft architektur, a design office which has carried out several strategic landscape projects and open space designs since 2004.



**Katharina Christenn**

studied landscape architecture at Technische Universität München (TUM) and Sapienza Università di Roma. She started her academic career with her doctoral research on professional history of landscape architecture in the 20th century at the Chair of Landscape Architecture and Transformation at TUM. As a research and teaching associate at the Institute of Landscape Architecture at RWTH Aachen University since 2016, she has been active in design studio teaching and projects in the field of Co-Producing Green Infrastructure with Urban Agriculture as well as the transformation of the Rhenish Revier. Her focus lies on cultural heritage and the transformation of post-industrial landscape.



**Laura Cipriani**

is an assistant professor at TU Delft. She has taught for a decade at IUAV, Politecnico di Milano, National University Singapore, Venice International University, and the University of Padua. She holds Bachelor and Master degrees in Architecture from IUAV (Hons 2001), a Master in Design Studies on landscape and urban studies from Harvard Design School (Hons 2004), a Ph.D. in Urbanism from IUAV (2008). In 2010 she was awarded the EU Marie Curie research grant (ass. prof. level), and since 2014 she has had the Italian Associate Professorship title. In 2008 she founded Superlandscape, a landscape and urban design office.



**Chiara Geroldi**

is an assistant professor (fixed-term) in landscape architecture at Politecnico di Milano. She graduated in architecture at Politecnico di Milano (2010) and she got her PhD (2015) in a joint program of Politecnico di Milano, Politecnico di Torino, and Politecnico di Bari (attending the research doctorate course in Spatial Planning and Urban Development at Politecnico di Milano). During her PhD, she has been a Special Student (visiting) at Harvard University Graduate School of Design, Dept. of Landscape Architecture (A.Y. 2012-2013). Her research interests regard the intersection between waste, ground, and landscape architecture, strategies for brownfields, phytoremediation, mining and electricity landscapes.



**Antonio Longo**

is architect and urban designer. He is associate professor of Urban Planning at Politecnico di Milano where he directs the Master's Degree Course in „Landscape Architecture Land Landscape Heritage“. His work is focused on the relationship between landscape and urban design. Since 2001 he has coordinated numerous applied research and publicly funded projects concerning the processes of land and landscape transformation and management and the relationship between landscape and infrastructures.



**Veronika Stützel**

studied development policy and physical geography with a focus on global climate change and adaptations in urban areas at RWTH Aachen University. Since 1993 she has been working as a research associate at the Institute of Landscape Architecture at RWTH Aachen University in the fields of sustainable urban development. Her thematic focus lies on regional development, sustainable urban planning (regional and global scale), urban climate. In the last years she has led several Bachelor's and Master's teaching programs related to the spatial and transformational context of the Rheinisches Revier.



**Matti Wirth**

is a reflective practitioner who works as a planner for regional design at NEULAND HAMBACH GmbH. He is also a guest lecturer and ex-research associate at RWTH Aachen University where he obtained his doctorate in 2019. He studied architecture and urban design at the University of Karlsruhe (TH) and the field between landscape and urbanism in a postgraduate program as a DAAD scholar at the Massachusetts Institute of Technology (MIT). He has worked as a lecturer at Wageningen University in 2020/2021 and as an adjunct professor for Texas A&M University in 2019. He has been a project coordinator for the regional development initiative “Zukunftsagentur Rheinisches Revier”.

## **REL22**

### Organizing committee

Program coordinator: Silvia Beretta

Technical committee: Silvia Beretta, Katharina Christenn, Matti Wirth

Summer school logistics coordinator: Veronica Stützel



RWTH Aachen University  
Institute of Landscape Architecture  
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52056 Aachen  
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preliminary program  
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