Designing for climate resilience

- Professorat: Miriam García. DUOT
- Grau o MarqEtsaB
- Àrees de coneixement. Urbanisme
- Àrea temàtica i subàrea: Arquitectura i Emergencia climàtica
- Modalitat temporal: regular o semi intensiva
- Número de crèdits. 3 ECTs

BREU DESCRIPCIÓ: The goal is understanding social-ecological systems as complex adaptive systems (CAS) to promote an “Anthropocene” design revolution based on landscape as a resilient infrastructure. Systems linking people and nature, such as metropolitan areas, cities or neighborhoods, are increasingly understood as CAS. We need to work improving their resilience to contrast the internal and external stresses that they are about to face in the following decades. It becomes essential to integrate structural, nonstructural natural and natural based structures with technology and place engaging different agents through the design process. It is precisely this commitment with ecology and society, engaged with creative design the engine of the course, as a method for achieving resilience to climate change.
1\textsuperscript{st} module: RESILIENCE THINKING AND DESIGN

The aim is to give the students an overview of the theoretical framework of Landscape architecture resilience design through a set off lectures and selected readings. \textit{(Lectures + Readings + Debates)}

2\textsuperscript{nd} module: TOWARD A LEXICON FOR DESIGNING RESILIENT LANDSCAPES

The ambition is to unveil general adaptation strategies integrated with the local components, materials, technology, agents and processes to face climate change through a set off innovate projects (selected case studies researched by the students) and collective resilience lexicon. \textit{(Case studies + Research + Design)}

3\textsuperscript{rd} module: DESIGNING RESILIENT LANDSCAPES

A creative way to develop a practical exercise in the Metropolitan Area of Barcelona by designing and implementing their own research to face climate change. \textit{(Research by Design)}
1st module: RESILIENCE THINKING AND DESIGN

From risk to resilience

From design to design thinking

From infrastructure to landscape

A theory is a set of general propositions, used as principles of explanation of the apparent relationships between certain observed phenomena. [...] Prediction and understanding are two purposes of theory. One uses theory deductively and places it toward the beginning of the plan for a study (Azlan 2013, 55).
2nd module: TOWARD A LEXICON FOR DESIGNING RESILIENT LANDSCAPES

- Understanding landscapes under climate changes effects: System characterization and its principal hazards due to climate change effects.

- Innovative projects (selected case studies) such as Rebuild by design competition, Changing course competition, Resilient by design Bay area challenge, Minneapolis Riverfront design competition, Yamuna river project, Greater New Orleans urban water plan, Rotterterdam waterplan2, 2014 Rotterdam adaptation strategy, Zoho climate prof district in Rotterdam, Climate-smart agricultural projects, among others.

- Resilience structures, moving from hard to semi-hard, from fixed to mobile and from monofunctional to multifunctional structures, expanding the range of its possible benefits and integrating them in the construction of new socio ecological landscapes. Including structures aimed at operating in relation to the communities.
2nd module: TOWARD A LEXICON FOR DESIGNING RESILIENT LANDSCAPES

a set of conceptual and design responses selected by the students
2nd module: TOWARD A LEXICON FOR DESIGNING RESILIENT LANDSCAPES

a set of conceptual and design responses selected by the students
2nd module: TOWARD A LEXICON FOR DESIGNING RESILIENT LANDSCAPES

Through the student’s research by design work we will collective develop a worldwide typological and technological catalogue of strategies, structures and socio-ecological processes, with which to approach a metamorphosis of design free of the metaphysical concept of a static nature that must be protected, that opens the door to the design of resilient landscapes.
3rd module: DESIGNING RESILIENT LANDSCAPES
3rd module: DESIGNING RESILIENT LANDSCAPES

( Diversity)
( Ecological variability)
( Modularity)
( Acknowledging slow variables)
( Tight feedbacks)
( Social capital)
( Innovation)
( Overlap in governance)
( Ecosystem services)
Propostes optatives 2021-22
jornada de presentació 4 desembre 2020

3rd module: DESIGNING RESILIENT LANDSCAPES

Delta d’orquíides

6th June 2019
10th September 2051
28th February 2073
17th October 2120
Propostes optatives 2021-22

jornada de presentació 4 desembre 2020

3rd module: DESIGNING RESILIENT LANDSCAPES
3rd module: DESIGNING RESILIENT LANDSCAPES