

Pixeltopia

MSc1. The architecture of the next prefab buildings



Flying Prefabricated Pods. 'Sky City' design studio, by The Why Factory

Tutors

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Code	AR1TWF011
Credits	10 ECTS
Location	n/a
Excursion	No
Costs	n/a

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The architecture of the next prefab buildings

The building industry has made a great progress in the development of more efficient, faster or greener prefabricated architectures. We are witnessing great advancements in customisation, structural systems, building efficiency or waste control, to name a few.

But our Planet can't wait: we need to accelerate research and become truly circular. How can we help such 'pixel' industry make better architectures and better environments? Can we develop a true pixel economy that makes the users' life more cost effective? Shall we develop a true pixel ecology that makes life on Earth more CO2 reductive? How about a pixel society where living in pixels is ideal? Let's create a true utopia, a Pixeltopia.

In the Autumn Semester 2022, the Why Factory's MSc1 design studio *Pixeltopia*

will explore prefabricated housing that allows for more future lifestyles, as well as the use of modular prefabricated systems for other uses (work, farming, leisure, energy production, water management, etc.).

During the studio, students will develop scripting tools for collaborative design methods allowing users to participate in the design of flexible facades and floor plans, capable to adapt over time to everchanging needs. We will explore the potential of cantilevering methods so as to integrate unexpected functions in the ground floor, and flexible stairs, corridors, lifts and shafts permitting prefabricated architectures to evolve. All designs will undergo the evaluation of their objective performances (from CO2 emissions, to energetic performances, cost assessment or circularity criteria).

Only by calculating those performances, and adapting architecture to the fulfillment of the circularity agenda can we assure that Pixeltopia will come true.