

A house without weight, an ultralightweight Odyssey

2024-2025

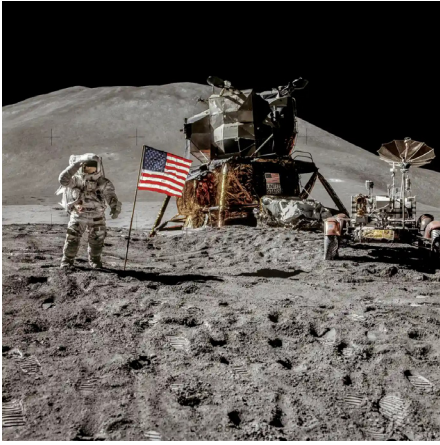
KU Leuven Faculty of Architecture

Master Studios Campus Sint-Lucas Gent

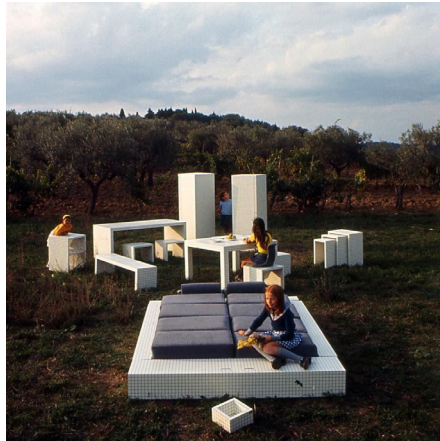
Fall Semester 3

Ruben Castro

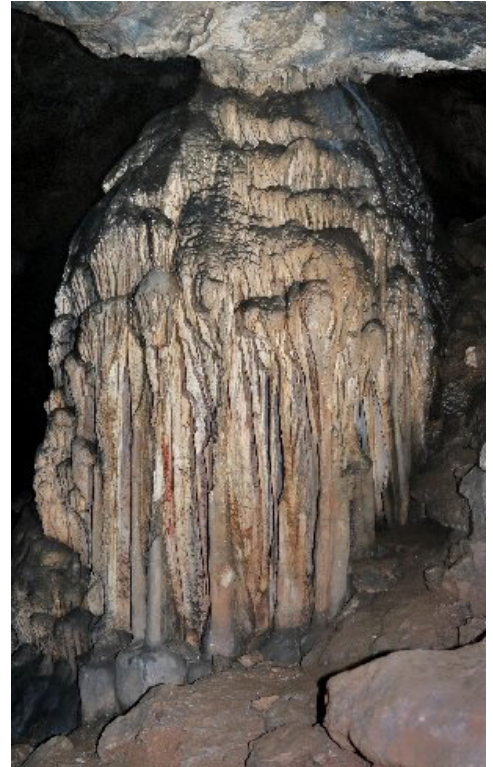
STUDIO REFERENCES



Lunar Lander Apollo 11



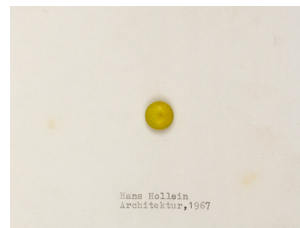
SuperStudio Misura



Cave paintings by neanderthals
Stalagmites making columns



Hans Hollein Mobile Office



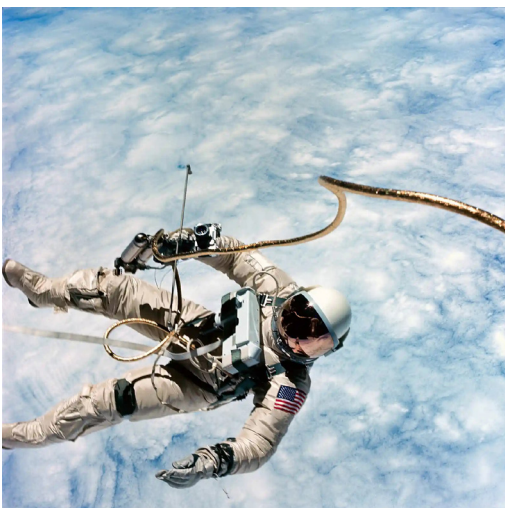
Hans Hollein
Alles is Architektur



Frank and Patrick Riklin Null Hotel



carbon heated jacket



Spacewalk First American Space Suit



Shigeru Ban Paper House

Engagement:

Craftmanship, 2024 - 2025 Semester 3, Campus Ghent

Teacher:

Ruben Castro

Language:

English

Ambition:

This studio is seen as a research trajectory to reflect, formulate and think of possible dreams, technologies and crafts for an architecture that can offer us a house without weight.

Context:

In 2020 the world surpassed the point of the amount of artificial material we produced as humans, which weighs more than all living organisms on this planet. At the start of the 20th century, the mass of human-created stuff weighed roughly 3 percent of global biomass. Since then, anthropogenic mass has grown exponentially to approximately 1.1 trillion tons today. It's now accumulating at a rate of 30 billion tons a year, which corresponds to each person on Earth generating more than his or her own weight in manufactured stuff every week. Most of that material is concrete—humanity's favourite building material—followed by gravel, bricks, asphalt, and metals. If current trends continue, these manufactured materials will weigh more than twice as much as all life on Earth by 2040. Can we produce an autonomous house with the minimum necessary materials from renewable resources that offers us most generous space for life? A space that offers us still the experience of shadows, light, intimacy, sight, spaciousness, and a feeling of home without the conventional impact on earth's resources. Using Hi or Low-tech technologies, (im)materials with artificial or non intelligence to ingenious usage of materials crafted on site. We invent and propose techniques that are unconventional to contain everyday life. Redefining the idea of a house and its usage. Questioning the untouched understanding of how we lived since modernism. Pushing the final frontier of domestic life.

cover image: graphene aerogel, backcover image: worlds lightes metal

Location:

everywhere and nowhere, specific or ambiguous

Program:

A house with 7 sequences.

The definition of a house and its user is to be outlined by the student.

A sequence is a gesture, a room or a composition of both.

The scale and time of the sequence is to be defined by the student.

Structure:

The design work is individual. Active participation and engagement in group/peer reviews.

Act 1 24.09.24 - 08.10.24

1. A house without weight?
2. Conduct a survey of a domestic house of your own definitions, memories, dreams and by your own desires
3. Propose 7 sequences (review 1)

Act 2 08.10.24 - 22.10.24

4. How do the 7 sequences form the definition of your house and the other way around and research driven by an agent, your house, an ultralightweight Odyssey. (review 2)
5. Prototyping

Act 3 22.10.24 - 17.12.24

6. house without weight
7. Presentation format (review 3)

3 review moments

review 1: 08.10.24 (group review)

review 1: 22.10.24 (mid-term)

review 3: 17.12.24 (final)

Outcome:

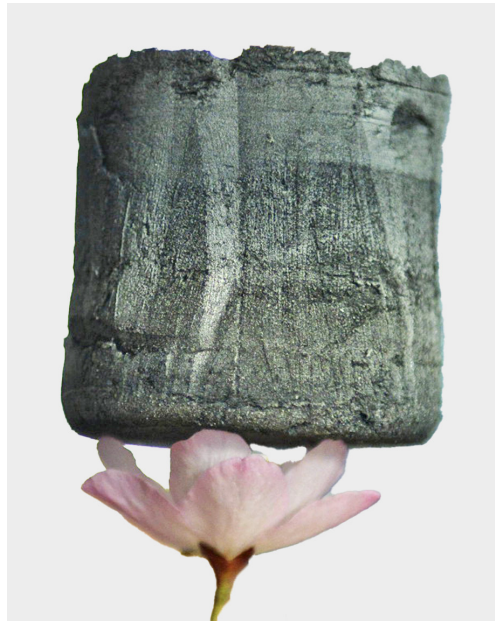
An inviting, rich and precise, straightforward, presentation that immerses the observer to see what you saw. A proposal with an argumentative arsenal as research by design. Format to be adjusted to the proposal. It might be a collage of various mediums in form of an installation or 1:1 mock up. It can be a model, a drawing, a book or a movie depicting the 7 sequences. The presentation will be accompanied by purely descriptive words, focusing solely on concrete qualities, with no comments, meanings, philosophies, or interpretations. Choose your unknown or favourite format.

Note:

As an architect we have the potential to create space that frames a moment. We move around from moment to moment. The perception of space is a transient experience. We see this space only in a constant flux that is affected by time, life is passing by.



Michael Heizer's Levitated Mass



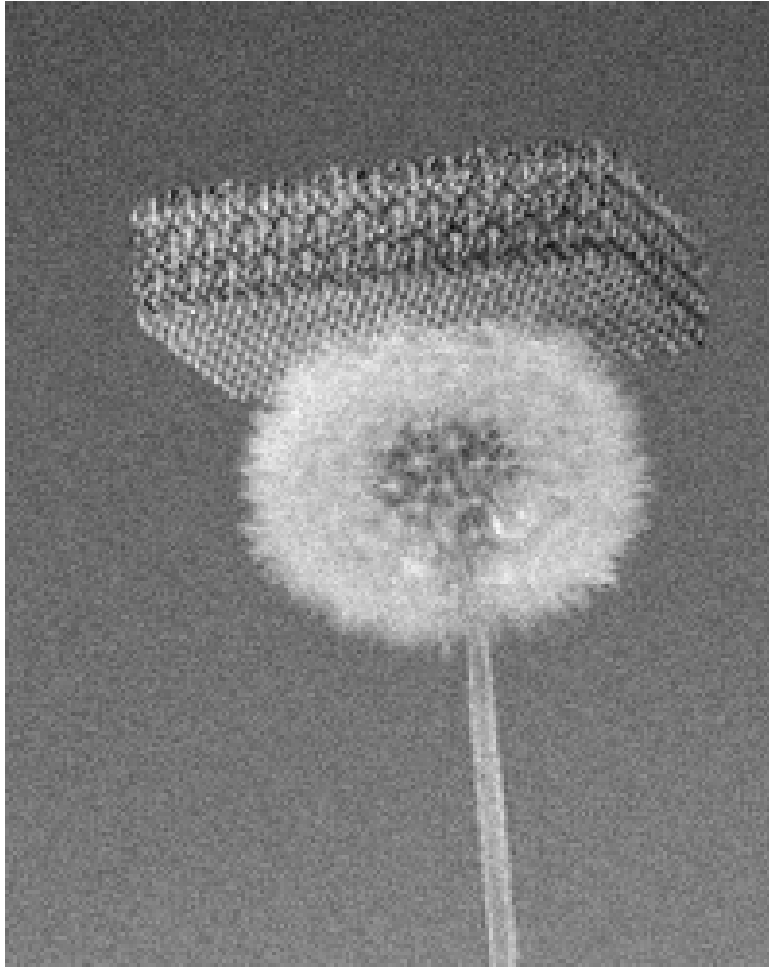
Graphene aerogel,
can support more than 6000 times its own weight



Smiljan Radic - Prototyping

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