

# LIVING SPACES

## IMPLEMENTATION OF ECOCENTRIC AND BIOMIMETIC TOOLS FOR CREATING URBAN IDENTITIES

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Currently urbanism is an adversary to nature. After all if houses are created to protect us from the uncontrollable outside conditions, it is only natural that housing building strategies go against natural principles like allowing expiration to occur, then repurposing, recycling. It makes even more sense that the more cities develop, the further we stray from said natural principles as we see fewer and fewer of them. The fewer natural processes we encounter in our everyday lives, the more antagonistic we act i.e. we are more prone to pollute. The practical meaning of this cycle is that the less nature we see, the less ecocentric our mindset becomes. <sup>1.</sup>

In order to create cities that are less harmful to nature, we have to bring nature and its 'way of thinking' closer to those of citizens. The park is a place for fun, the trees on the sidewalk are a lovely sight, but nature is not truly functional, it just provides a nice view. And does it not make sense for someone to think that way when they live in a Plattenbau in post-Soviet Sofia? No amount of colourful trash cans can make them spend more intimate time with their waste by separating it. No amount of trees in the park can make this apartment feel cooler in the summer. With ecological solutions only seeming like an expensive luxury for the average Bulgarian, why should they bother to recycle plastic bags, separate their trash or, for the love of the omnipresent entities, take a bike to work? Helping nature? How does nature ever help them?



1. *Urban Intervention: Applying moss to energy inefficient Soviet panel system buildings would regulate air T in summer and create a greener identity for the space*

In the Bulgarian context there are no facade regulations to prevent each inhabitant from insulating the outer walls in whatever way and colour they wish. In result the facades look quite chaotic in some instances. To top that, the insulation only further deepens another problem: the insufferable summer air temperatures due to the poor energy efficiency of the panels. Finally, Plattenbau quarters are notoriously identical with only few of them directly bordering a green area appropriately adapted for leisure. The citizens are not only completely detached from nature, they also have few things in their environment that create any joy or sense of identity.

We want to start from the facades: we propose the application of a moss based “living facade” on apartments in need of facade remediation. Since green facades reduce summer air temperatures, the quality of life of the inhabitants would be improved and greenery will be to blame.<sup>2,3</sup>By branding the space green in a not only theatrical but also helpful way, we strive to promote a new relationship between the actors in the urban setting. Furthermore, maybe the new green aesthetic would unify the ruling chaos. This precedes the next step: creating a greener identity for the whole quarter by promoting practical sustainable practices. Integrating communal trash shoots? Sneakily adapting a roof to become a rooftop Garden? Maybe even install a bicycle stand?

Finally, we want to investigate further biomimetic models e.g. termite mounds to help tackle other urban problem areas.<sup>4</sup>We want to truly reconcile the current adversaries: the hip nature with its fancy gen-z recycling trends and ecological blabber on one side and the grumpy middle aged Bulgarian adult who just managed to hit someone’s car when they poorly aimed their bag of waste at the container five levels below. Let’s imagine this person is an architect. Maybe looking at a tree instead of human garbage can make them think of tree roots in relation to building bones. Maybe they would be more prone to ideate biomimetic solutions. Maybe one day universities can teach architects biomimetic concepts as opposed to anthropocentric concepts in the hopes of solving a very anthropocentric crisis. But for now: let’s start with moss.



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## Additional Notes:

During the semester we aim to develop an urbanistic strategy for a greener identity for a Soviet Plattenbau quarter in Sofia. We want to start by branding it with moss but we believe that the further interventions should take inspiration from solutions that nature has provided after millions years of evolution. Similar to how termite mounds have been used as a biomimetic inspiration for architecture (and more specifically its ventilation), we want to investigate the field of biomimicry for solutions for urbanistic (not architectural) problem areas in post-Soviet neighbourhoods. This project calls for an interdisciplinary approach. For this purpose it would be productive for the members of the team to have an interest in ecology/biology/chemistry and more specifically biomimicry. Envisioned is a team of up to four people.

## References:

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