Synanthropic Suburbia
Retrofitting residential neighborhoods, Markham, ON, Canada

Main author
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Project data
Project group: Architecture, building and civil engineering
Client: Prototypical Suburban Homeowner
Project background: Research project

Summary and appraisal of the project by the jury
Entitled “synanthropic suburbia”, the project explores potential architectural habitats for wildlife of various kinds that live near and benefit from human habitation – thus the use of the term synanthropic, meaning living in symbiotic relation with human beings. Based on a meticulous analysis of suburban neighborhoods in the province of Ontario and the city of Markham in particular, the project’s author proposes a set of small interventions for animal residents normally neglected in the design or planning process – in this case, raccoons, chimney swifts, tree swallows, blue birds, barn owls, and brown bats, all native species to the region.

Statements on the sustainability of the project by the author
Beyond sustainability - enhancing ecology through architectural intervention
Suburbanization throughout Ontario has transformed vibrant agrarian and natural ecosystems into homogeneous suburban landscapes incapable of supporting a diversity of wildlife. The objective of Synanthropic Suburbia is to retrofit existing suburban neighborhoods into viable animal habitats. The project seeks to move beyond sustainability, towards an architecture that actively improves its local ecosystem. Through the strategic addition of ecological prosthetics, the project offsets the negative impacts of suburban development and encourages homeowner engagement with local ecosystems. Each prosthetic is carefully detailed to limit its environmental impact and accommodate the biological needs of select animal species to create resilient architectural and environmental conditions.

Suburban standardization - leveraging uniformity towards economic viability
Ecological prosthetics are designed to leverage the uniformity of residential wood-frame construction in developer-built communities. Each prosthetic is standardized to typical housing models and prefabricated, reducing the cost and enabling homeowners to affordably modify their existing home. In return, homeowners receive improved building performance and enhanced ecosystem services. Compost chimneys improve soil quality, limiting the need for chemical fertilizers; extended eaves collect and store rainwater for irrigation, reducing water consumption; and habitat dormers encourage insect consuming animals, controlling local pest populations. The investments of individual homeowners accumulate, resulting in a suburban community with increased biodiversity and environmental performance.

Innovative practice - expanding architectural thinking through ecological principles
Synanthropic Suburbia explores new disciplinary frontiers by integrating ecological principles into architectural design. By focusing on identifiable suburban features like the chimney, eave and dormer the project makes ideas of multi-species cohabitation and environmental stewardship accessible to a wide audience. Though formally subtle, the prosthetics radically alter the performance and function of conventional building components to embrace animal species. These design principles have broad applicability and could be adapted to local species, construction methods and homeowner desires to create a range of prosthetics. Furthermore, the project speculates on how the multiplication of small architectural interventions across a community could have wide-scale, positive environmental impact.