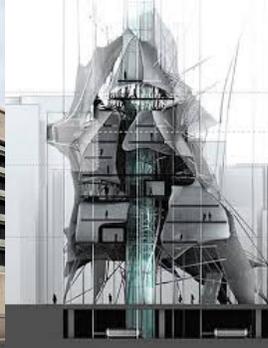
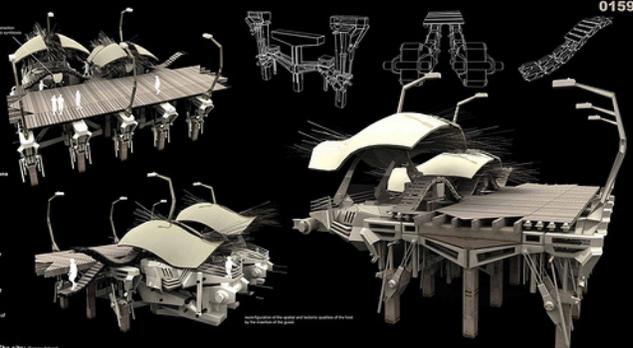


# symbiotic mutations : rethinking building as armature

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precedent study \_  
LEBBEUS WOODS  
COOP HIMMELBLAU  
DANIEL LIBESKIND  
OTHER RELEVANT STUDENT THESES

KORTEKNIE STUHLMACHER  
MVRDV  
MORPHOSIS

COPENHAGEN  
BERLIN  
STOCKHOLM

VIENNA  
LONDON  
AMSTERDAM

## Thesis

- Given the continuous push towards urbanization of contemporary cities and concentrated need for growth in already dense, established urban centers, this thesis proposes a reconsidered set of diagrams for operating on existing building to create a symbiotic relationship in adaptive, sustainable architecture.
- Due to the rich historic building stock in European cities, firms such as Coop Himmelblau and Daniel Libeskind, among others, have developed methodologies for building in dense urban areas, particularly with relationship to existing building that aligns new projects above the ground plane. My thesis research will be comprised of, while studying abroad in Europe, creating a critical survey or catalog of methods and typologies of precedent projects. Through the creation of a catalog, I will have a base for proposing variations and even untried possibilities for operating on existing buildings. I will use this catalog to generate a set of diagrams or approaches based on biological growth and adaptation in nature for symbiotic building above the ground plane.
- With my precedent catalog and series of diagrams/approaches resolved, I will have the necessary knowledge to return to Carnegie Mellon in the spring and begin applying my research to urban planning in the American context. The methods that I will have researched in the fall have been primarily developed in Europe and by cataloging methods and typologies in European precedents, I will have a basis to apply variations and untried possibilities in the context of an American city, namely San Francisco. I am familiar with the urban context of San Francisco, having worked on architectural projects in the city and having lived in the Bay Area this past summer. With a methodology that I will have developed during the fall in Europe and in combination with a visit to San Francisco early in the semester, I will block out sites to apply my variations and untried possibilities for building symbiotically above the ground plane. My final application will result in a couple site specific examples, translating research and precedent analysis from Europe into critical examples that reconsider typical approaches to urban planning and adaptive reuse architecture in the American context and propose possibilities for a method of future development.
- The connection between working across Europe and America to develop my methodology is critical to this thesis. I believe that gaining insights from one context and being able to translate or adapt ideas for a new context is a critical issue in architectural practice. Many firms design projects for contexts different from one's own and must learn to gather insight for building that combines information specific to the place and fresh approaches developed through their own research and practice. My thesis uses European precedents to catalog methods and typologies that can then be analyzed through diagram to propose variations and untried possibilities for approaches to sites outside the European context, namely in America where this method of urban building is largely untried. Upon graduating, I plan to target firms in the San Francisco area to work. Using San Francisco as my site outside the Europe context is therefore critical to my development as a student, future architect, and American urban planner.



precedent study \_ COOP HIMMELBLAU "ROOFTOP  
REMODELING FALKESTRASSE" vienna, austria 1988



## Methods

precedent case study  
urban mapping  
oral interview  
research  
physical model  
digital model  
prototyping  
digital drawing  
sketchbook  
site visits  
study abroad  
photography

## Annotated Bibliography

DeYong, Sarah, and Marco Michelis. *The Changing of the Avant-Garde: Visionary Architectural Drawings from the Howard Gilman Collection*. New York: The Museum of Modern Art, 2002. Print.

DeYong and Michelis illustrate early examples of visionary architectural drawings collected by curator Pierre Apraxine that questioned the modernistic aesthetic and looked toward utopian ideas for interpreting the relationship between urban morphology and building typology.

Gould, James. *Animal Architects: Building and the Evolution of Intelligence*. Basic Books, 2007. Print.

Gould analyzes the evolution in sheltering structures built by animals.

Feireiss, Lukas, and Robert Klanten. *Build-On: Converted Architecture and Transformed Buildings*. Gestalten, 2009. Print.

Feireiss and Klanten discuss selected projects that are collected under three categories, add-on, inside-out and change clothes, to describe various forms of transformation and conversion of existing buildings.

Johnson, Philip. *Deconstructivist Architecture*. New York: Museum of Modern Art, 1988. Print.

Johnson reflects on the theory of Deconstructivist architecture through the recent work of architects such as Daniel Libeskind, Bernard Tschumi, and Coop Himmelblau.

Prix, Wolf D. *Get Off of My Cloud: Texts 1968-2005*. Germany: Hatje Cantz Verlag, 2005. Print.

Wolf D. Prix discusses the theoretical content behind Coop Himmelblau's architectural work through a collage of drawing, lectures, interviews, and critiques.

Schittich, Christian. In *Detail: Building in Existing Fabric*. Germany: Institut für Internationale Architektur-Dokumentation GmbH & Co. KG, 2003. Print.

A collection of adaptive reuse projects are examined in analytical detail drawings to understand the connection between existing and new structure.

Woods, Lebbeus. *Radical Reconstruction*. Princeton: Princeton Architectural Press, 1997. Print.

Lebbeus Woods illustrates new approaches to the reconstruction of buildings and urban fabric due to unpredictable natural forces to not only transform physical structure and space, but to promote a new sustainable way of living.