

SOM Foundation

Applicant 68

2012 SOM Prize

*PUBLICO Y PLASTICO*

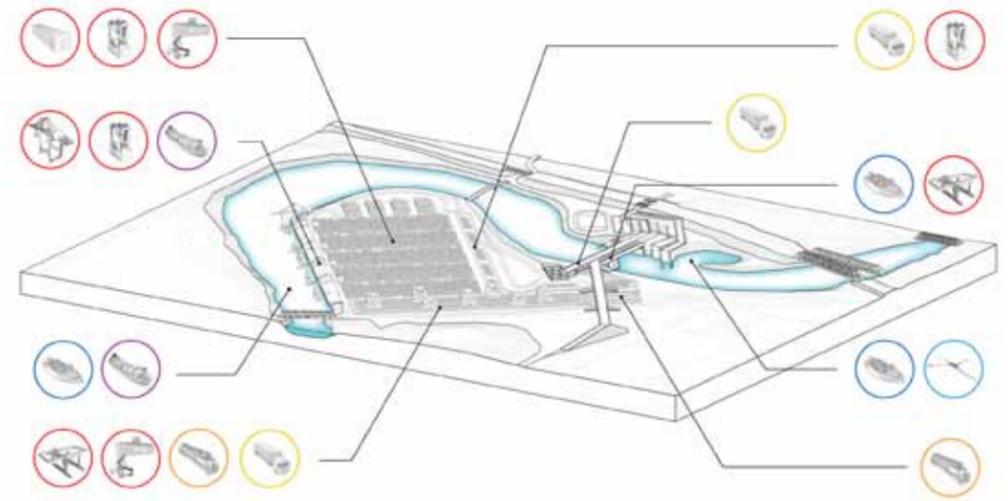
*Exploring South America's Unique Public Architecture*

# Calumet DAM *a new ecological / economic gateway to the Great Lakes*

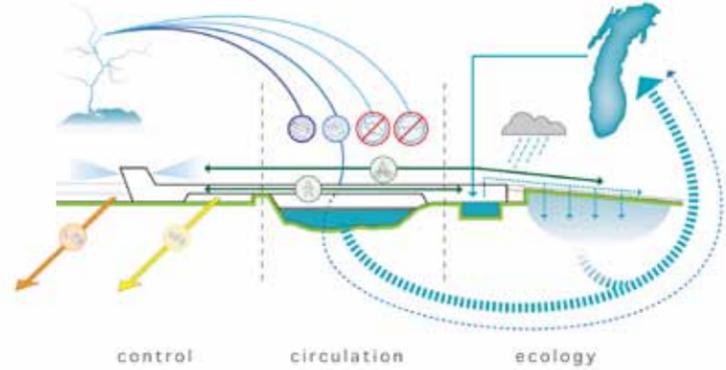


One of Chicago's greatest resources is the abundant fresh water and rich marine habitat afforded to it by its location on the shores of Lake Michigan. However, the city has exploited that resource in many ways, drawing excessive amounts from the lake, dumping sewage overflow rather than treated water back into the lake, and reversing the natural flow of the Chicago river so that it now empties into the Mississippi River Basin. Additionally, Chicago suffers from a bottleneck of transportation routes, once a boon but now a traffic nuisance. Add to these pressures the threat of invasive species, and a new hybrid architectural solution is needed to deal with these issues.

This CAL-SAG DAM in south Chicago is that solution. It combines a hydrological barrier to re-divide the Great Lakes watershed from that of the Mississippi, a new inter-modal transit facility to capitalize on the growing barge traffic in the Great Lakes, and a community center to engage and benefit some of the poorest neighborhoods in the Chicago Area. Combining all of these functions into a single architectural solution not only allows the seemingly dissimilar programs to benefit from one another, it has the added benefit of creating a new **ecological corridor** that reestablishes the rich riparian habitat that has been decimated by decades of industrial pressure along the Cal-Sag Channel. The separation of the Inter-modal facility along the channel gives back a "person-powered" area of waterfront undisturbed by barge traffic and adds a southern gem along Chicago's Emerald Necklace of public parks. In total the combination of programs into a dynamic facility creates an unprecedented architectural and infrastructural typology that is greater than the sum of its parts.

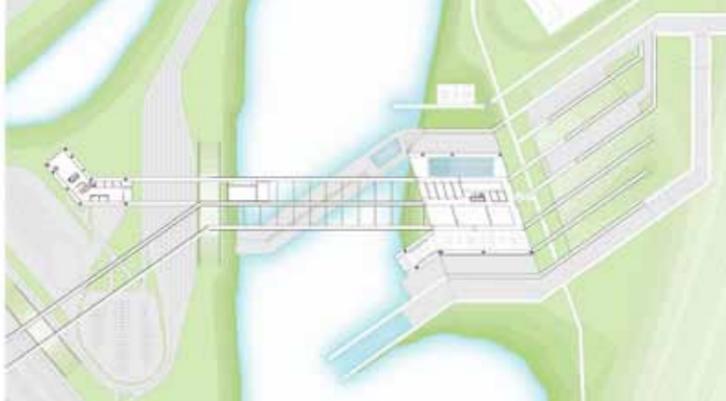
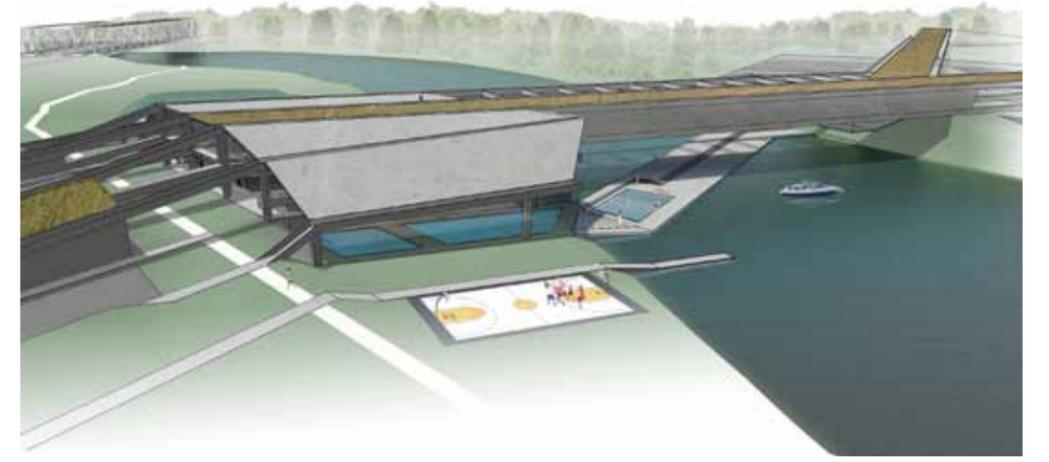


equipment zones of the intermodal facility



control circulation ecology

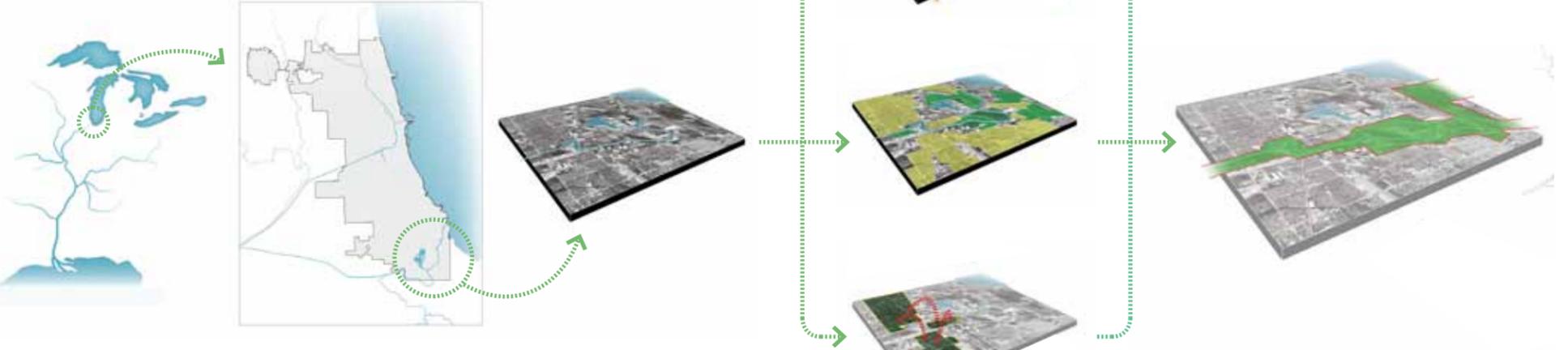
The functional demands of the inter-modal facility are extremely rigorous and require strict zoning of program elements. The main DAM facility alternately bridges *and* blocks traffic flows to direct heavy, medium and light equipment through the site. The structure as a whole **acts a filter** for water, animals, vehicles and pedestrians to create a piece of infrastructure with a positive ecological impact.



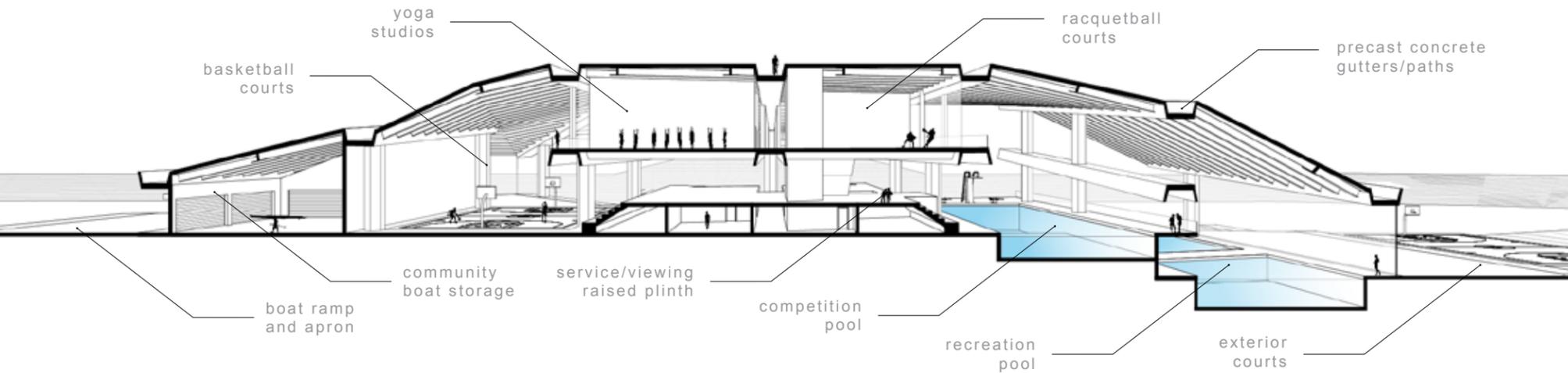
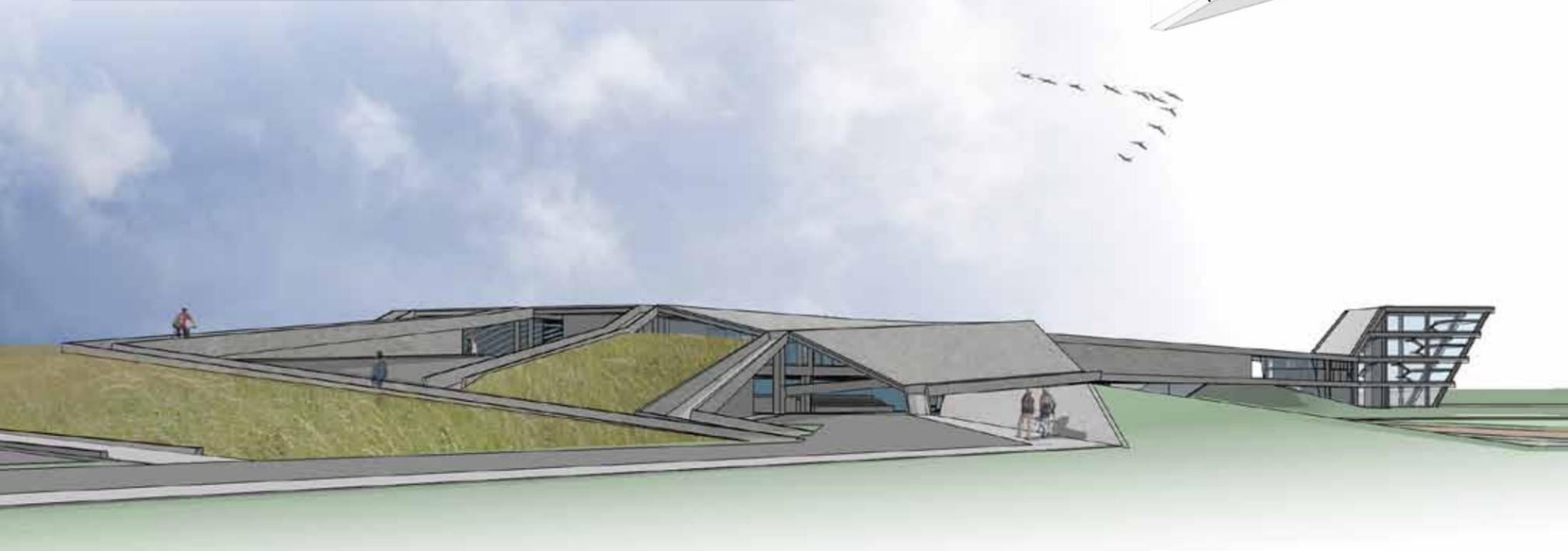
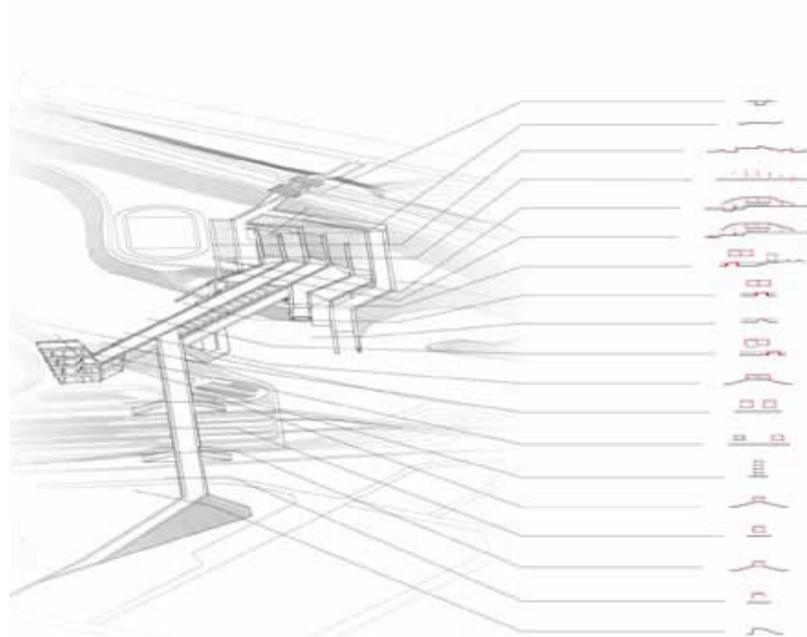
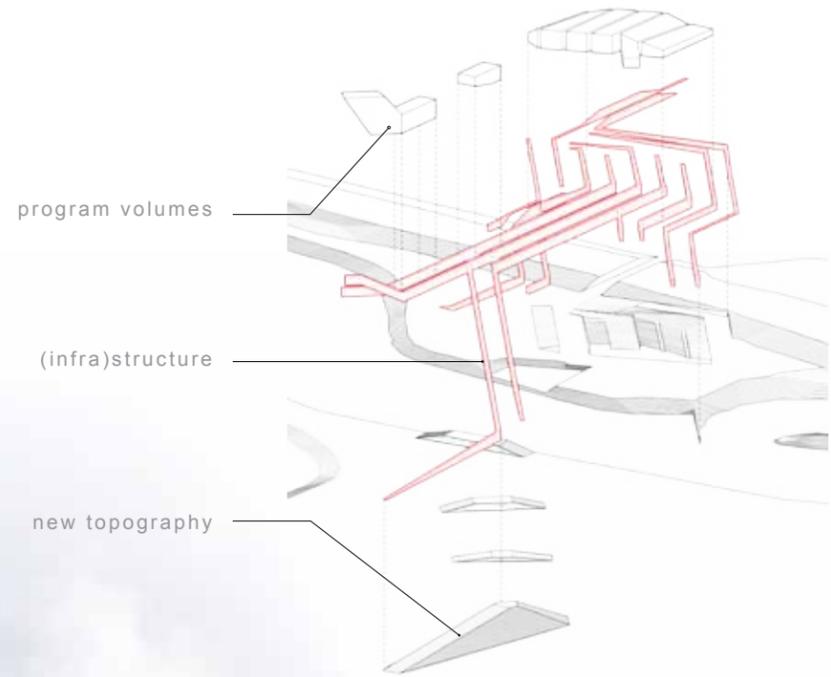
upper level



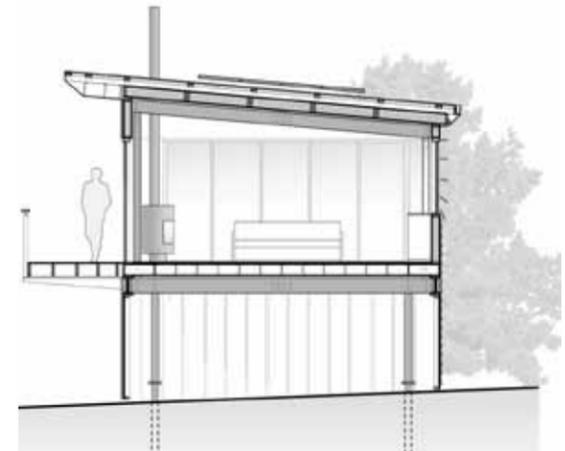
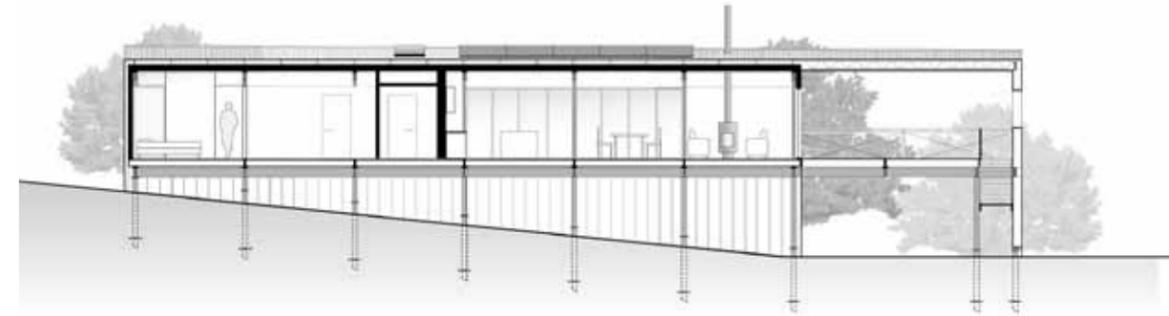
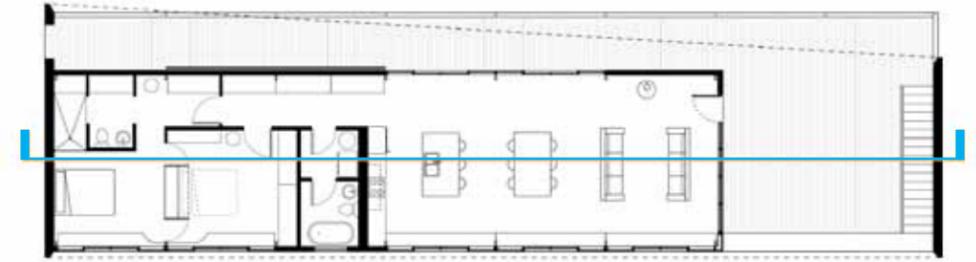
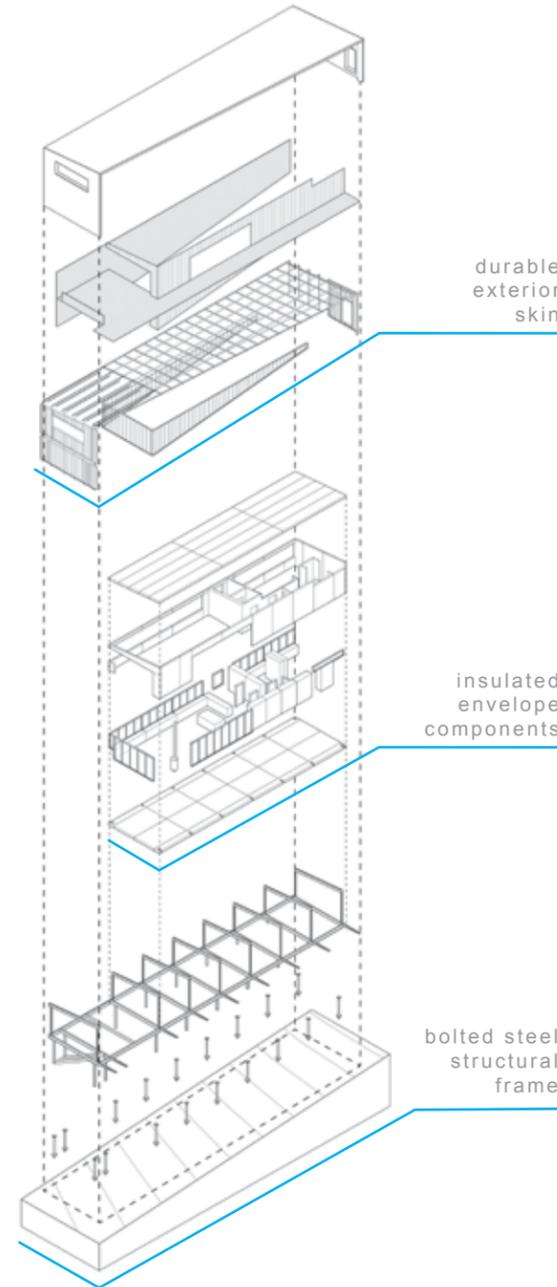
lower/river level



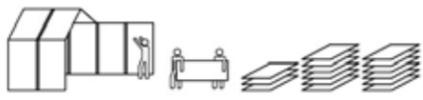
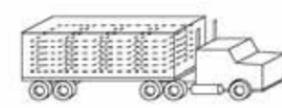
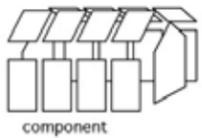
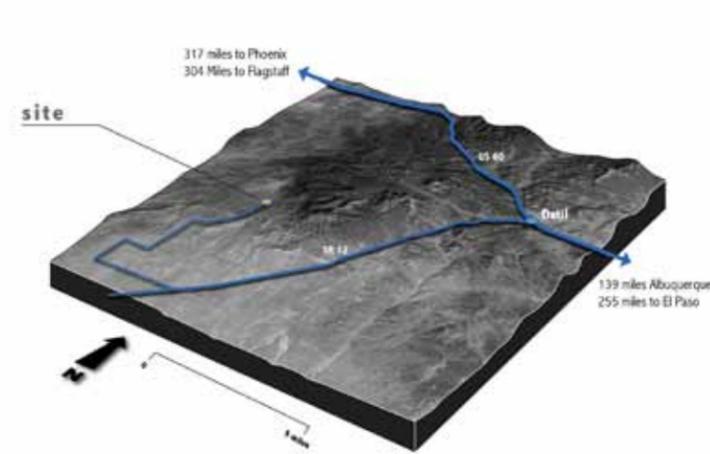
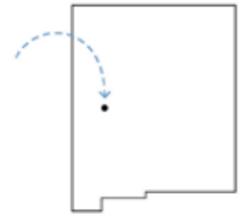
Great Lakes ..... Chicago ..... Cal-Sag channel ..... hybrid opportunities ..... a new ecological zone



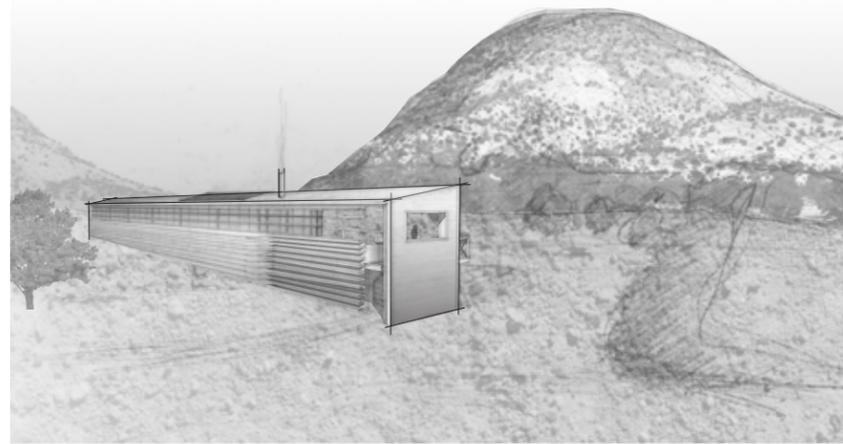
# Remote Home *a prefabricated, system-based solution to rural living*



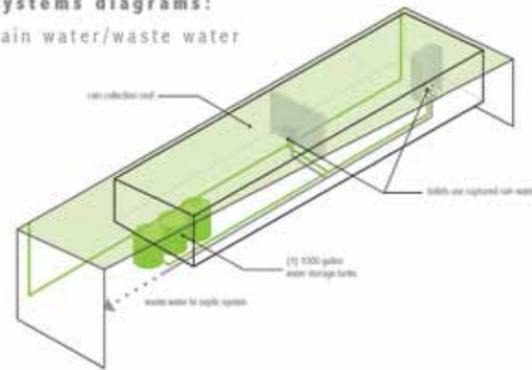
The new realities of the building industry demand a more sensitive approach when creating homes. This project defines a system of construction rather than a specific structure to help address issues of material waste, energy efficiency, and resource consumption, all with the final goal of creating a beautiful, livable home. Extensive research was done to identify the appropriate form of prefabrication (component based) for remote sites in addition to making assembly a relatively easy process for a savvy homeowner. The house is based around a bolted steel frame structure with a Structurally Insulated Panel envelope, and durable, locally-sourced materials for the building skin.



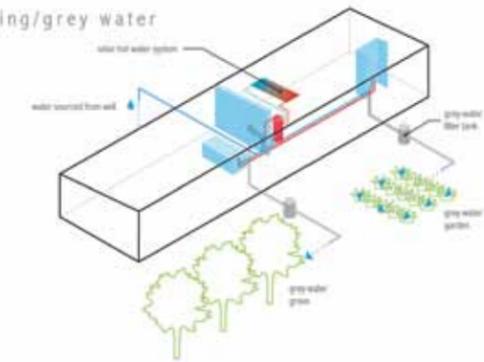
component fab ◦-----> transport ◦-----> owner assemble



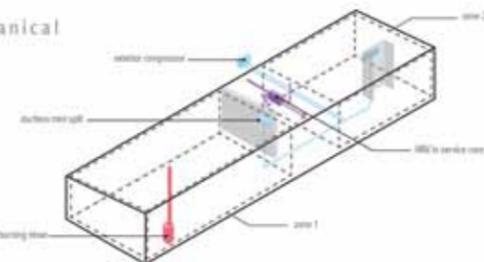
systems diagrams:  
rain water/waste water



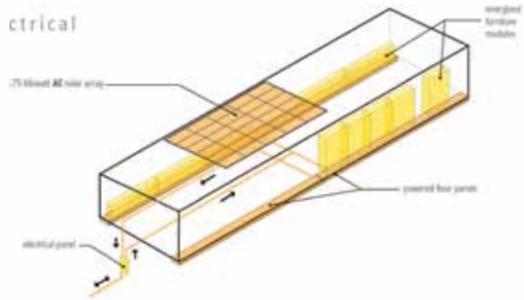
plumbing/grey water



mechanical



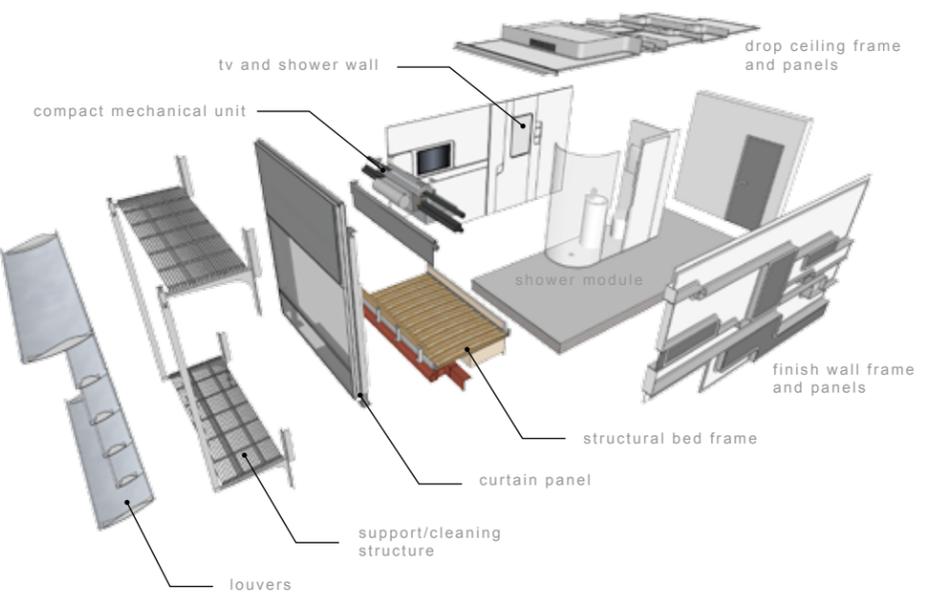
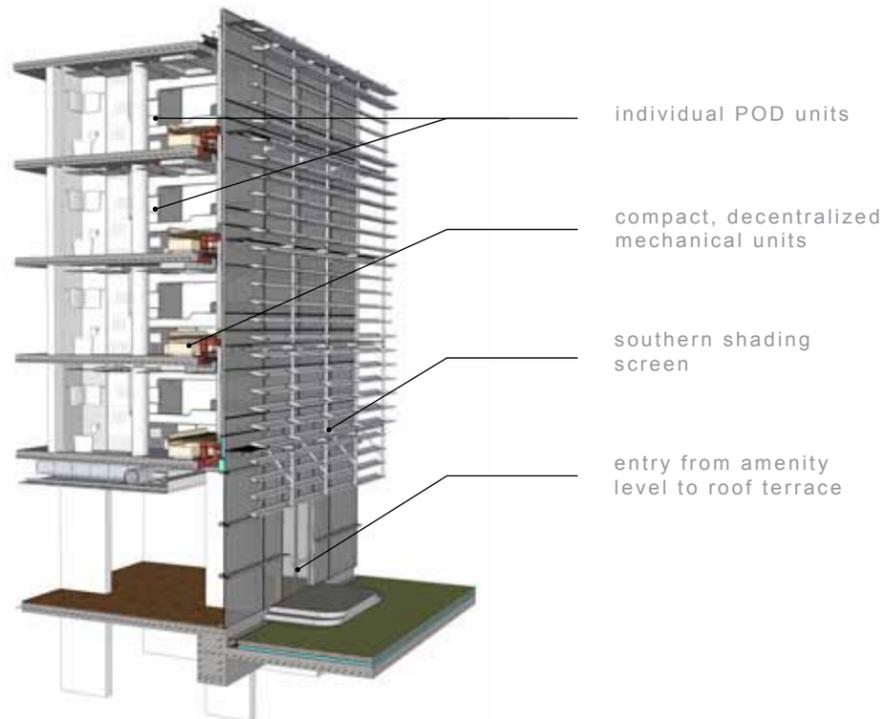
critical



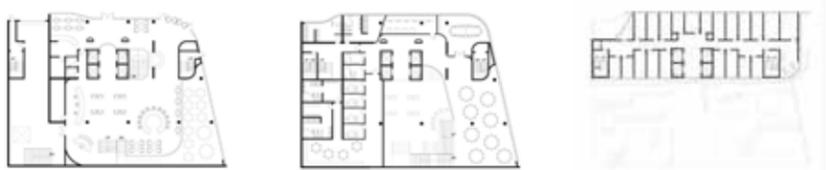
*systematic and sensible*

All of the systems within the house are designed to be compact, efficient, and typically within a "closed loop". Rainwater harvesting, grey water irrigation, solar power and compact ventilation units keep the house's carbon, and more importantly for this region, water impact to a minimum. Additionally, all of the materials in the project have been chosen for their recycled content or ease of being recycled.

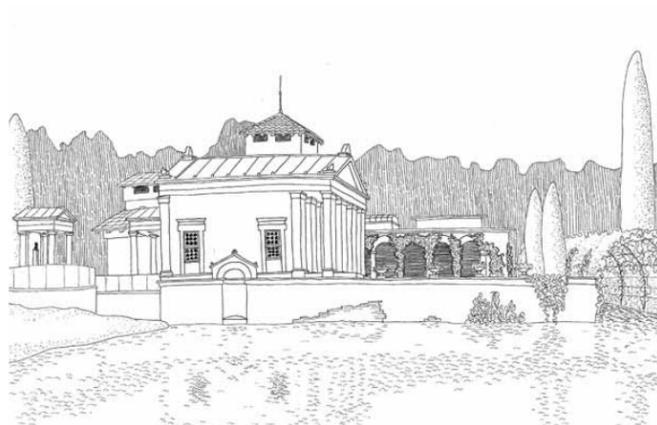
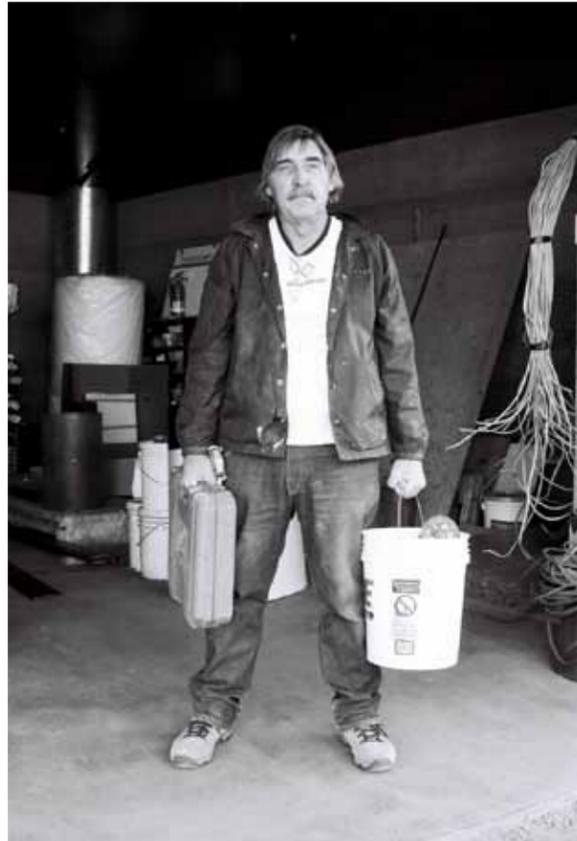
# Chelsea POD Hotel *minimal space, maximum luxury*



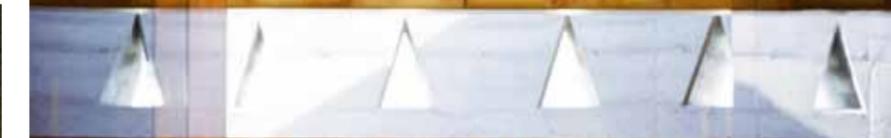
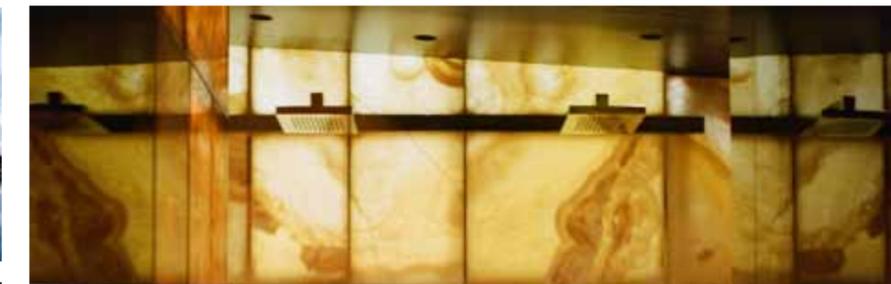
Recently a new trend in American luxury travel has emerged: minimal sleeping space with more and larger public amenity space, all the while richly appointed. This "POD" hotel on a tight site in New York City delivers on that premise with tightly integrated POD rooms and beautiful public spaces, including a roof garden and sky lounge.



# Photography/Sketch



Using film photography and sketching as a way to explore and document space are effective in similar ways: they are both analogue practices, and accordingly they force the observer to slow down and contemplate the process of creation. I use these techniques to capture and learn from the spaces around me and look for more and more places and techniques to grow this cataloging vocabulary.



# Research Abstract

## PUBLICO Y PLASTICO

**Publico Y Plastico** is a research project comparing the High Modern and Neo Modern public and cultural architecture of South America to discover strategies for public engagement, humanist techniques, and urban renewal. In a climate of economic and political upheaval as well as rapid population growth the architects and planners of South America have developed a particular school of monumental, yet sensitive strategies that respond to the individual user and the greater public. This project will expose, document and analyze those strategies.

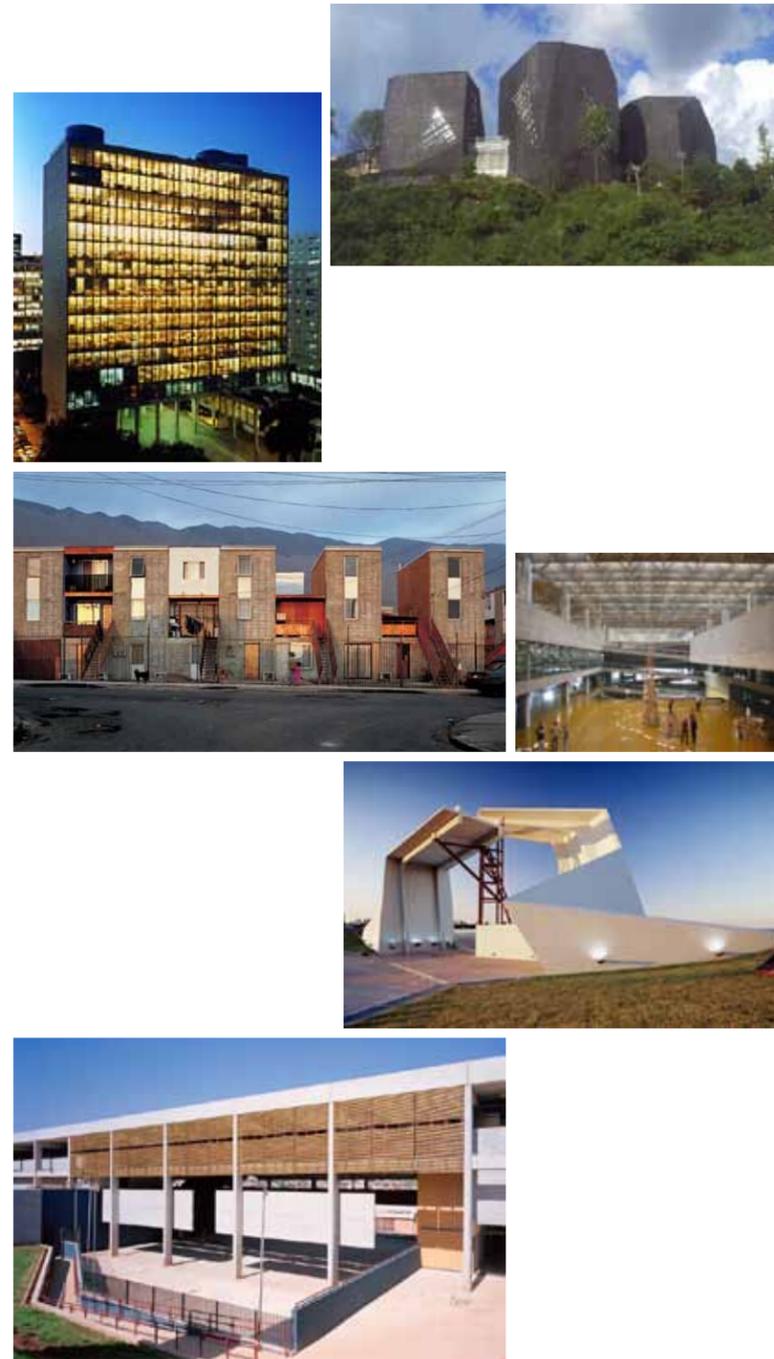
The research will begin with the study of Inca Relics as the backdrop of monumental South American architecture. The Incas, a highly organized society, created stunning works of urban planning and architecture that are as mesmerizing as they are functional. Their cisterns, calendars and planting terraces can be seen as the predecessors of the modern monumental buildings of South America.

The "High Modern" architects of the early and mid 20th century, Carlos Raúl Villanueva, Amancio Williams, Oscar Niemeyer and their contemporaries, took the tenants of European Modernism and molded a particular design ethos that became all their own. Often funded by burgeoning and newly independent states looking to make a statement on the global consciousness, their nationalist architecture none the less had a focus on the individual

user and the public that is particularly lacking in strict modernist buildings. In this way they took the spirit of modernism and imbued it with a plasticity of form that is still vibrant and intriguing in a contemporary context.

The so-called Neo Modernists of the new millennium have taken this original spirit and formal plasticity and refined it with new technologies and more acute socioeconomic goals. Particularly striking is the collaborative nature of the work, with a shifting cast of firms and architects coming together to make a number of wholly original works. No longer only constructed of the ubiquitous Brutalist concrete (although not entirely abandoning it), these structures have become works of technical finesse with specific urban regeneration goals. Some of the most innovative contemporary urban renewal strategies can be found from a modern tour of South America.

Throughout all of these built works, from centuries-old on to contemporary, a particular undercurrent of human sensitivity (**Publico**) and ability to "bend the rules" of stringent modernism (**Plastico**) have shaped a volume of architecture and planning that demands further exploration. With population increase, material management and economic uncertainty all global concerns, the problems and solutions of South American designers can add to the dialogue for sensitive urban solutions.



# Proposed Travel Itinerary

Travel locations focus on locales that benefit from established architectural foundation in addition to young talent. Many of these are capital cities with dense populations, perfect for researching architecture in the public domain. Cusco is included for its historical significance. Travel will consist of flights between countries and typically more established *colectivos* (charter busses) domestically. Research will not be limited to architects on the list as "boots on the ground" experience and conversation will illuminate local subjects and talent.



map inspired by Jaquín Torres-García

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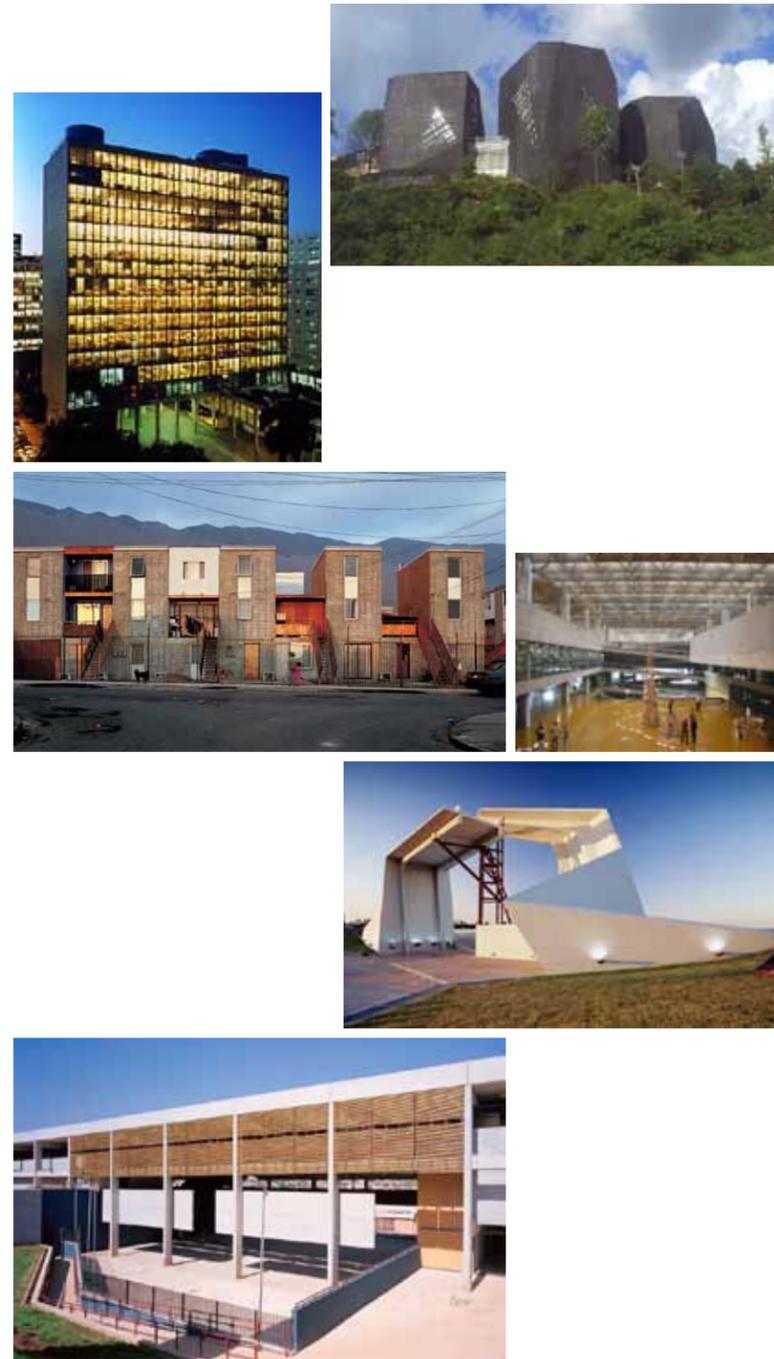
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