Preserving What? Design Strategies for a Post-Revolutionary Cuba

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The Cuban Revolution's neglect of Havana (as part of a broader socialist project) simultaneously ruined and preserved its architectural and urban fabric. On one hand, Havana is crumbling, its fifty-plus year lack of maintenance inscribed on its cracked, decayed surfaces and the voids where buildings once stood; on the other, its formal urban fabric—its scale, dimensions, proportions, contrasts, continuities, solid/void relationships, rhythms, public spaces, and landscapes—remain intact. A free-market Cuba, while inevitable, leaves the city vulnerable to unsustainable urban development. And while many anticipate preservation, restoration, and urban development—particularly of Havana's historic core (*La Habana Vieja*)—"business as usual" preservation practices resist rampant (read: neoliberal) development primarily through narrow strategies of exclusion (where, what, how, and why not to build), museumizing Havana as "a city frozen in time."

Seeking a third option at the intersection of this socialist/capitalist divide, this paper describes 4 student projects from THE CUBA STUDIO, a collaborative Integrative Urban Studio at Marywood University's School of Architecture. Over the course of 16 weeks, students in THE CUBA STUDIO speculated urban futures for a post-revolutionary Havana--strategizing ways of preserving Havana's architectural and urban fabric in the face of an emerging political and economic shift that is opening, albeit gradually, Cuba to global market forces. And rather than submitting to these forces, the work critically engages them toward socio-cultural ends. Some driving questions were: What kind of spatial politics do we deploy while retrofitting Havana? How will the social, political, and economic changes of an "open" Cuba affect Havana's urban fabric? What role does preservation play? For that matter, what does preservation really mean and by what criteria are sites included in the preservation frame? What relationships are there (or could there be) between preservation, tourism, infrastructure, education, housing, and public space?

In the process, students established systematic research agendas to reveal opportunities for integrated "soft" and "hard" interventions (i.e. siting and programing), constructing ecologies across a range of disciplinary territories including (but not limited to): architecture, urban design, historic preservation / restoration, art, landscape urbanism, infrastructure, science + technology, economics, sustainability, urban policy, sociology, and cultural/political theory. An explicit goal of the studio was to expand and leverage "preservation" (as an idea, a discipline, and a practice) toward flexible and inclusive design strategies that frame precise architectural interventions at a range of temporal and geographic scales.

PROJECT 1 - *COLUMNA DE AGUA:* ACTIVATING PUBLIC SPACE THROUGH WATER INFRASTRUCTURE

Perhaps the most ambitious in its scale and scope, *Columna de Agua: Activating Public Space through Water Infrastructure* addresses and intertwines infrastructure, public space, and urban development strategies (including both addition and removal) in Havana. In doing so, it situates historic preservation within the flows of globalization and vice versa.

The students began by analyzing existing housing conditions and infrastructure including: water supply, sewage, and electricity, capitol vs. tourist spending, and the tension(s) between globalization and preservation. The disconnect between the prosperous tourist zones and the neglected neighborhoods with failing infrastructure propelled the students towards a proposal that would provide the local residents with clean water and safe public spaces, even in the densest

Figure 1: *Columna de Agua: Activating Public Space Through Water Infrastructure.*
Students: Robert Trapper, Domenico Granci, Andrew Reynolds, David Oliveti.

areas. The scope of the project was determined through this analysis and the proposal focused on design strategies at the local, regional and global scale.

The students noted that since the early 2000's, the government invested heavily in tourism, which slowly increased the contribution to the country's GDP.[1] By their account, this propelled the government to divert large amounts of capital towards improving and enhancing the touristic sector of Havana, while ignoring the basic necessities of local residents. In other words, this large difference in living conditions between the local residents and tourists resulted in the neglect of decent housing and basic infrastructure for the locals. The neglect was noted to be carried into the lack of maintenance of water pipes and clean water supply to the local residents.

The discovery of an early 19th century aqueduct (*Acueducto De Albear*) in *Centro Habana,* formed the backbone for this proposal. Columna De Agua is based on the (re)activation of this aqueduct as a new water filtration system for Havana. This provided opportunities to implement strategic proposals for incorporating porous surfaces for water collection, cleansing, and filtration, all the while, preserving the memory (the traces) of old buildings by revealing and foregrounding their footprint.

Ultimately, the project proposes four (4) conditions that addressed the issues of water collection, filtration and public space for local residents. The "Site Design" proposed a system for preserving the footprints of deteriorated buildings while creating tiered plazas that act as water filtration systems and socio-cultural gathering spaces. The "Rills Systems" created streams or channels, forced along demolished building foundations, that were supplied by rainwater or aquifers and converged at collection pools for filtration. The "Strategic Building Replacement" proposed the removal of buildings in the worst condition and the footprints of these buildings to be used in the channelling of water to the filtration systems. Finally, the "Filtration Improvement" emphasized the importance of the existing aqueducts around the city and the role they played in the supply of water for the city of Havana.

PROJECT 2 - SYMBIOSIS: IMPROVING HAVANA'S ENVIRONMENTAL QUALITY AND LIFE THROUGH INTEGRATED INFRASTRUCTURE

symBIOsis integrates preservation with landscape and urban policies in order to promote systematic and sustainable growth through waste systems. In the process, explored (the lack of) waste management in Havana while designing for increased international tourism, post-U.S embargo. .

For the current population of 2.1 million, Havana generates approximately 1 million tons of Municipal waste a year.[2] Left unchecked and without intervention, this could rise up to about 2 million tons by the year 2030. Much of the waste sits on the streets, uncollected for days and when collected, ends up in landfills around the city. A considerable amount of that waste makes its way into the harbors around Havana through rivers and tributaries that empty into the Havana harbor .

The three main rivers that empty out into Havana Harbor are *Almendares, Luyano / Hondo* and *Arroyo Tadeo*. Each of these rivers carry organic wastes, hydrocarbons and suspended solid waste through Havana and into the Bay every day. Research shows that more than 50 industries and oil refineries dumped waste directly into the Havana Bay, and other industries dump waste into rivers and tributaries which eventually make their way to the Havana Bay.[3]

In response, this project proposes integrated, yet phased, project strategies that included: 1) extending the Malecon into Old Havana's industrial waterfront and harbor, while staging cleaning processes for the waters and promoting community involvement, 2) proposing aquaponic farms to filter the harbor waters, and 3) introducing a performative landscape as the foundation for ecological regeneration and architectural intervention. These phases were envisioned as intertwining (physically and temporally) to create a new estuary condition in the harbor and a landscaped promenade that served to regenerate the environment while providing an educational commons for local residents and international tourists alike.

PROJECT 3 - CRITICAL PRESERVATION: RE-ESTABLISING THE SOCIAL VENUES IN *CENTRO HABANA*

In critical view of UNESCO's exclusive focus on Old Havana as worthy of "world heritage" status, *Critical Preservation: Reestablishing the Social Venues in Centro Habana* addresses housing, public space, and the crumbling building infrastructure in *Centro Habana* (Central Havana)—neighborhood to the west of the old core that is typically left out of the tourist zone—by reconceptualizing the meaning and process of heritage construction practices.

In contrast to Old Havana, *Centro Habana* is denser and more deteriorated as a result of years of neglect, with a majority of Havana's population residing there. Hurricane damage and temporal decay added to the shortage of good housing. *Centro Habana* also faced competition for governmental funding due to the rapid gentrification of surrounding areas. Students noted that the disparity between a large population and a lack of quality housing was being addressed by the Cuban government as "quick fixes," that is, by fast construction of cheap, low quality building stock, as opposed to sustainable long-term housing solutions. Much of the current housing stock was recycled by using "building parts" or remnants from dilapidated buildings within each neighborhood. Students also observed that the government's methodology stripped the neighborhood of traditional housing styles and social venues and worked as a patchwork of structures that had reduced longevity with minimal cultural impact.

In response, the students identified buildings that were in fair, poor and dilapidated condition and proposed converting dilapidated buildings into open social venues for the community. By strategizing the effects of selectively removing and recycling existing buildings, students expanded the criteria for value (of building materials, of real estate, of public space, etc.)—assigning categories ranging from architectural styles to supply and demand as a basis for price. Additionally, the students proposed eco-material workshops that would train locals in the salvage, restoration and reuse of materials to give a sense of ownership to the community. The

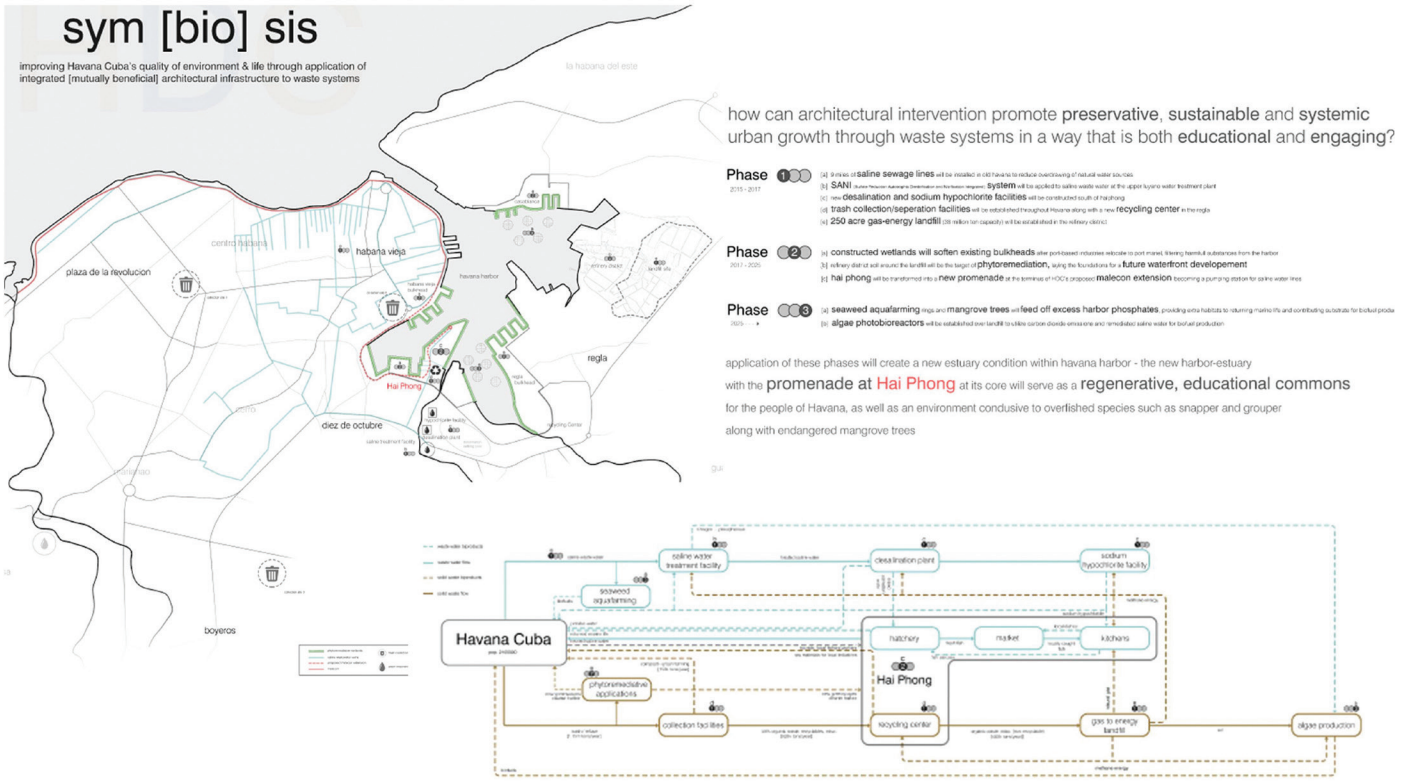


Figure 2: symBIOsis: Improving Havana's Environmental Quality and Life Through Integrated Infrastructure. Students: Greg Goldstein, Brett Tomczyk, Dalton Deardorff."In every neighborhood, Revolution! Dilapidated building in Central Havana, Photo by Author, 2004.

eco-material workshops were to provide the citizens with the building materials and training to rebuild their homes, community and socio-cultural venues. The process of removing dilapidated buildings and the creating urban spaces would allow each community, neighborhood, and block to be unique in its interaction with the city.

The preservation of the history of these buildings was addressed by landmarking the footprint of removed buildings for open urban spaces. Newly created lots were purposed for social gatherings, parks and urban oases. Existing open lots were reused for parking and connectivity between buildings was established by "roads" or "plazas" between occupied spaces.

PROJECT 4 - *EL CIRCUITO DE CAMBIO*: HAVANA'S HOUSING RENEWAL AND ENERGY REINVESTMENT

As a World Heritage Site (UNESCO), historic preservation in Old Havana intertwines cultural patrimony with the rush for foreign currency.[4] Meanwhile, the rest of the city—and especially *Centro Habana* —is often overlooked, leaving it populace in terrible, often temporary, housing conditions.In response, *El Circuito de Cambio: Havana's Housing Renewal and Energy Reinvestment* addresses seemingly disparate issues of poor quality housing and the energy (re)investment through urban agriculture and entrepreneurial homestays. Students analyzed existing energy consumption and available resources in Cuba, leading to a proposal that involves systematic adaptive reuse strategies converting existing habitable structures into housing and eco-hostels. Students also took into consideration the proposed influx of tourism and its impact on energy and resources in the city of Havana in their proposal of these eco-hostels.

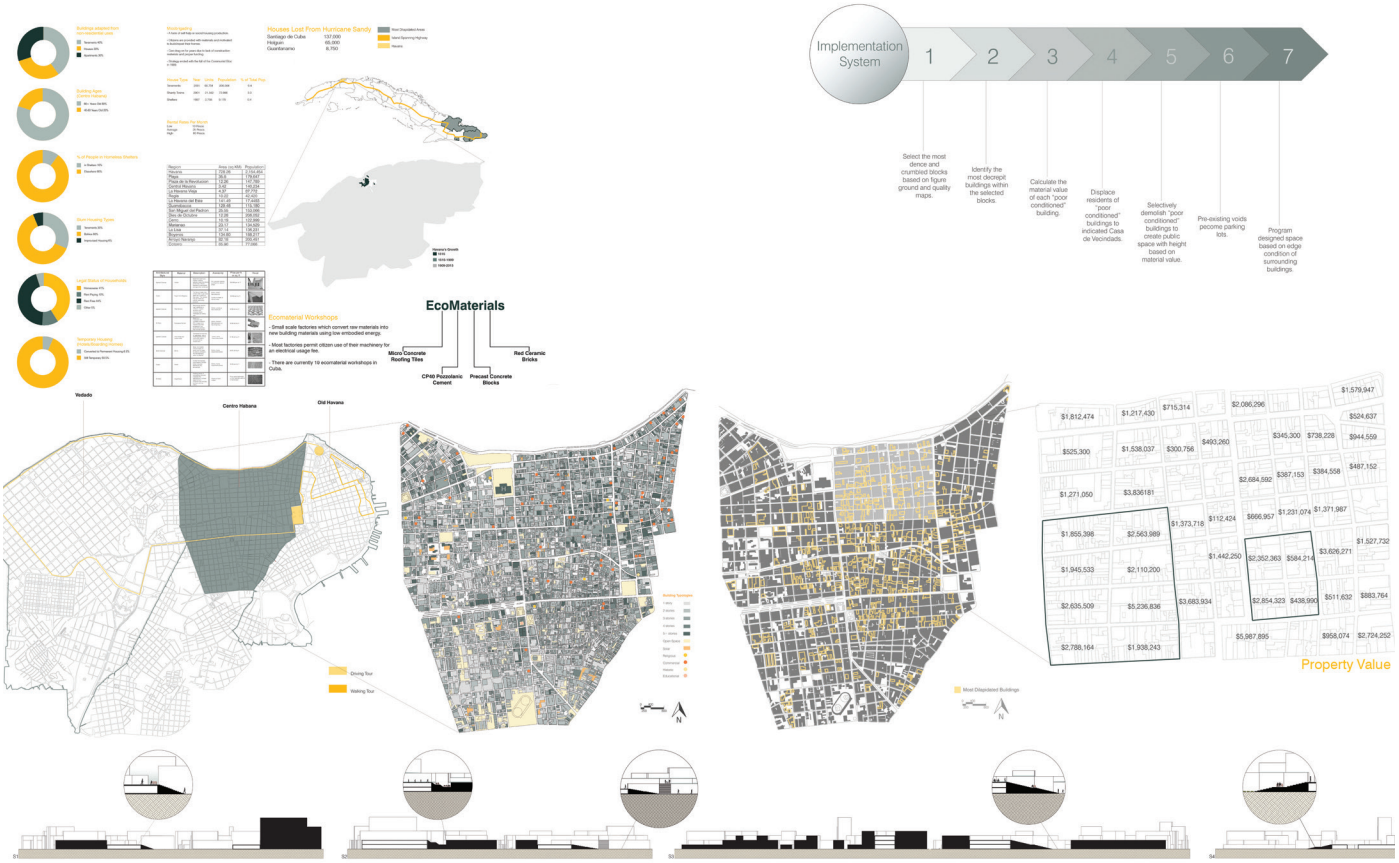
The idea of the eco-hostel involved the community in the investment of the growth of the city and the in the rehabilitation of existing building stock. Vertical farming and entrepreneurial policies were proposed to redirect governmental funds to improve housing conditions and empower the citizens of Havana.

Students proposed integrated phases which would address issues of housing and resources in the urban development. Buildings and sites were identified on a scale of "Excellent" to "Deplorable" as a means of accessing their value for redevelopment. Buildings that were in excellent condition were targeted as potential first phase development of eco-hostels. Profits gained from this venture were to be rolled into the next phase to fund buildings of lesser quality. This phased development allowed neighborhoods and buildings to be redeveloped systematically, all the while giving control of the process back to the citizens.

The phased process also involved identifying areas of Old Havana, that would generate higher income at the pilot phase, whose profits could eventually be transferred to *Centro Habana* for further redevelopment. The proposal called for the integration of local citizens and tourists in the proposed eco-hostels where urban vertical farming would meet the demand on a local scale.

Critical Preservation

Reestablishing the social venues in Centro Habana



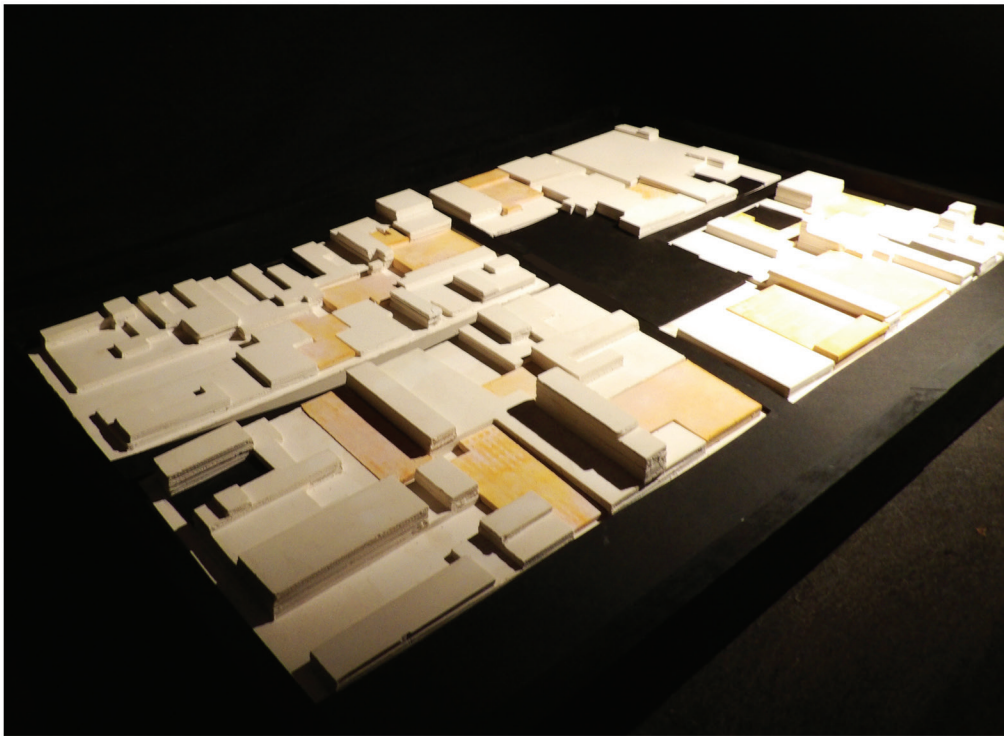


Figure 3: *Critical Preservation: Reestablishing the Social Venues in Centro Habana.*
Students: Emily Maldari, Brianna Muller, Emma Lyn Fritzinger.

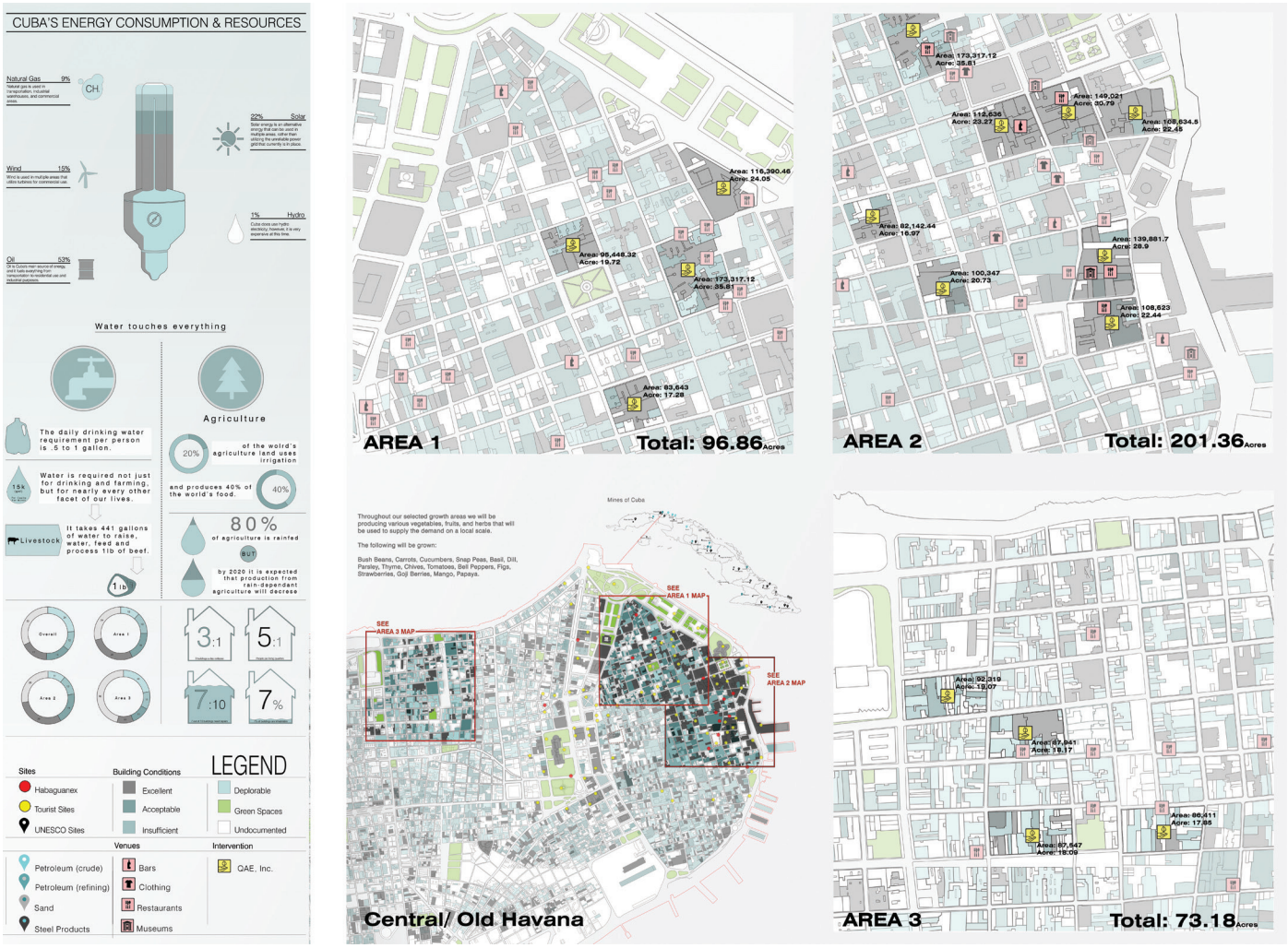


Figure 4: *El Circuito de Cambio: Havana's Housing Renewal and Energy Reinvestment*. Students: Sophia Assaf-Bautista, Ty Quattlebaum, Shane Ehrich. Restored *Plaza Vieja* fit for tourism. Photo by Author, 2004.

ENDNOTES

1. World Travel and Tourism Council. *Travel & Tourism Economic Impact 2015,* Cuba. London, UK: World Travel and Tourism Council, 2015.
2. Goodsell, James Nelson. "Havana." Encyclopedia Britannica Online. June 2016. Accessed January, 2016. https://www.britannica.com/place/Havana.
3. Quevenco, Rodolfo. "Sustainable Development of Coastal Waters." International Atomic Energy Agency. March 2015. Accessed July, 2016. https://www.iaea.org/newscenter/news/sustainable-development-coastal-waters.
4. "Old Havana and Its Fortification System." - UNESCO World Heritage Centre. 2016. Accessed March, 2016. http://whc.unesco.org/en/list/204.