portfolio (selected work) :: hampton university
carmina sanchez-del-valle, arch.d., ra: associate professor
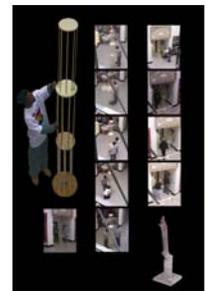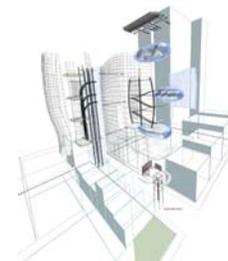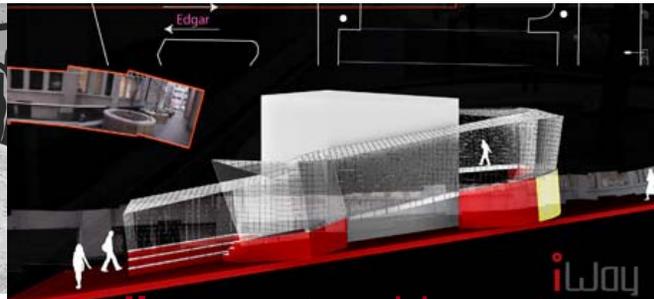
faculty portfolio :: hampton university

carmina sanchez-del-valle, archd., ra: associate professor

The thesis studio was originally developed by Araya Asgedom. Since 2003 I have co-taught the studio with colleagues (currently with Daisy Williams), and have made substantial changes as we learn more about developing a design research thesis with our students. Approximately 130 students have completed the thesis in the last seven years.

The thesis is a personal, visionary and meaningful interpretation of architecture that reflects on the pressing issues of today's society. We encourage students to pursue investigations related to the themes identified in the mission of our professional program dealing with marginal communities, African American identity, historic preservation, and environmental stewardship such as building on the waterfront and ecological sustainability.

This studio offers a space for reflecting about architecture, the self, and about society, enriched by formal and impromptu dialogue with peers, faculty, and members of the wider community. It is not about an architectural 'project,' but about architecture as conjecture, understanding, and revealing. It is not about what some call derisively *archi-talk-ture,* but about action: thinking, designing, and making for a better built environment. On this we acknowledge the idea that the architects' work improves our living conditions is debatable. We have borrowed Jane Rendell's explanation for the role of critical theory to best describe the goal of the thesis effort: "this kind of theoretical work provides a chance to reflect upon what is there, but also to imagine something different – to question and transform rather than describe and affirm." [Jane Rendell, *Architectural Research and Disciplinarity*, **ARQ**, vol.8, n.2, 2004, p.141-147; p.145]

Design Research Thesis studio :: co-teaching
2003 – to present

faculty portfolio :: hampton university
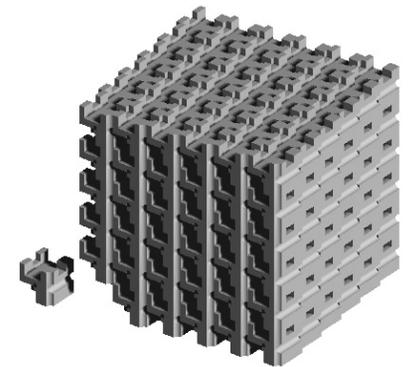## carmina sanchez-del-valle, archd., ra: associate professor

The course taught as an elective workshop introduced students to the history of deployable and transportable structures as they developed 3d modeling and rendering skills. At Hampton University the workshop used the platform of Form Z. The course was originally developed as a graduate elective while I was teaching at Florida A&M University. Through the years students developed a variety of programs: vendor stands, music chamber, lifeguard station, research station, wind turbine maintenance walking station.

Students were encouraged to use origami and transformer toys as metaphors for designing adaptive kinetic structures as devices that helped conceiving the types of movement and articulation of the physical components.
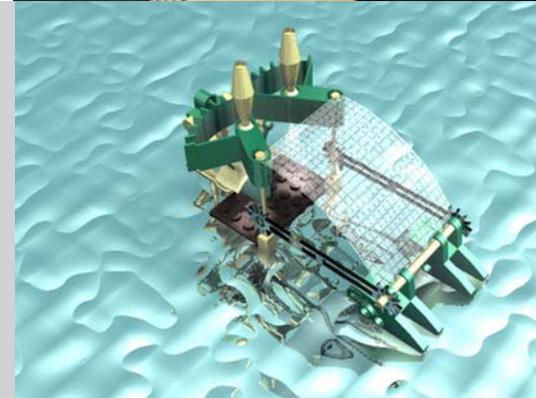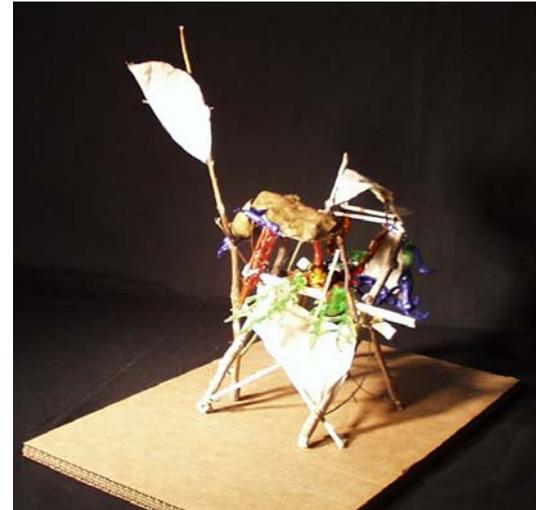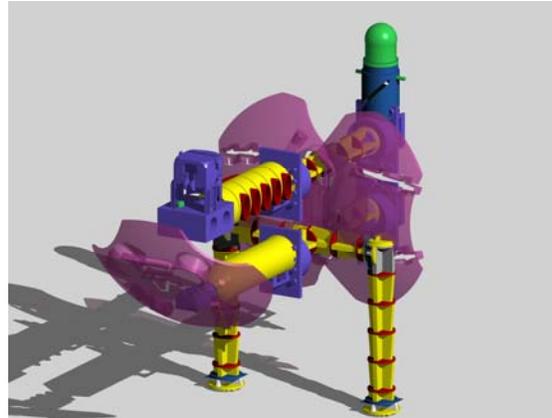
kinetic, transformable - modeling and rendering in 3d ::
explanation 2001 - 2006

faculty portfolio :: hampton university
carmina sanchez-del-valle, archd., ra: associate professor

The syllabus for ARC 204: Computers in Architecture defines as its conceptual goals to address the computer as a concept, the computability of design, and digital media as design and re-presentation tools. It explores these ideas through learning to use AutoCAD to generate, manipulate, and represent architectural subjects. The objects analyzed and interpreted vary in scale from a sculptural artifact such as a table or chair, a joint, to a moderately complex small building. A secondary goal of the course is to offer students the chance to study examples of contemporary architecture by dissecting the drawings that represent them. Finally, the course facilitates the investigation of the difference between a drawing generated with traditional media and its digital equivalent – a collection of objects. This distinction is the most important lesson this course purports to convey.
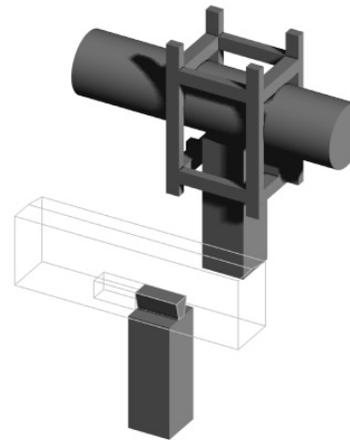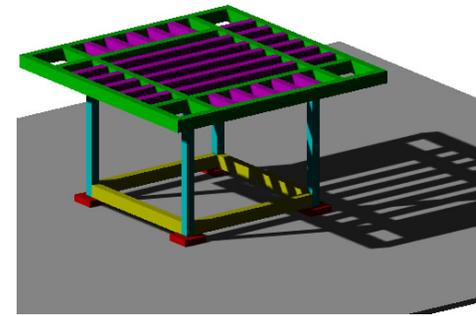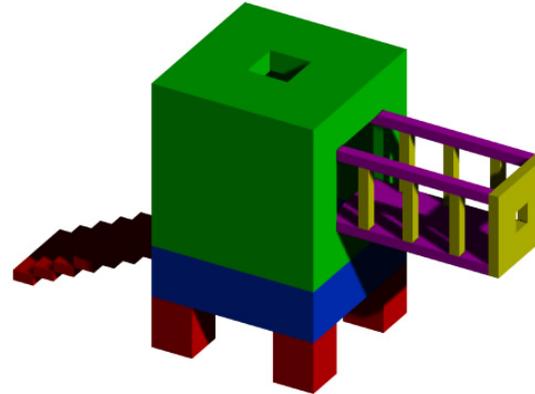
The *old* computers in architecture course :: explanation 1997-2003

faculty portfolio :: hampton university
carmina sanchez-del-valle, archd., ra: associate professor

The architectural representation course was absorbed into the M. Arch of the curriculum. It was intended to build on design knowledge and graphic skills introduced in the 1st year studio; and to develop awareness about the history of representational devices in architecture. It used contemporary architectural work as the site for furthering graphic and analytical skills using traditional media. The Computers in Architecture (also replaced) used this experience as foundational knowledge.

Architectural Representation :: explanation
1997 - 2003

faculty portfolio :: hampton university
carmina sanchez-del-valle, archd., ra: associate professor

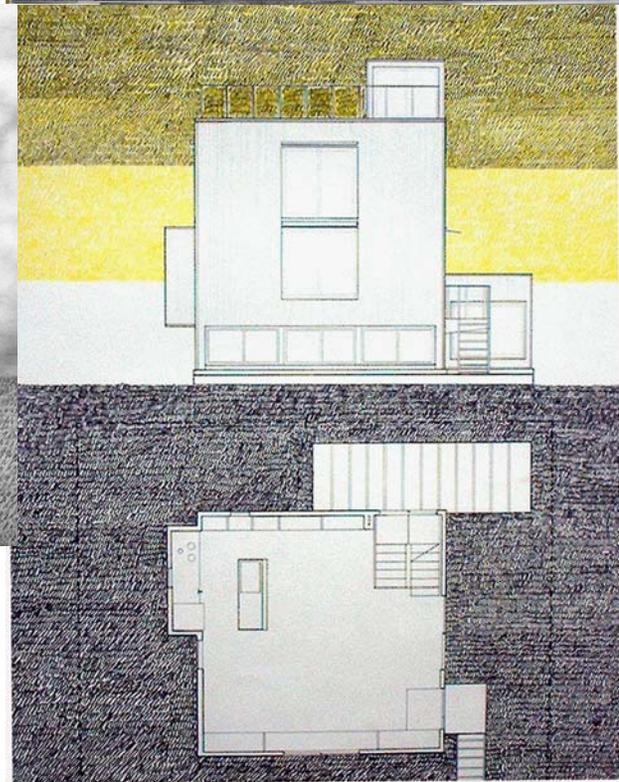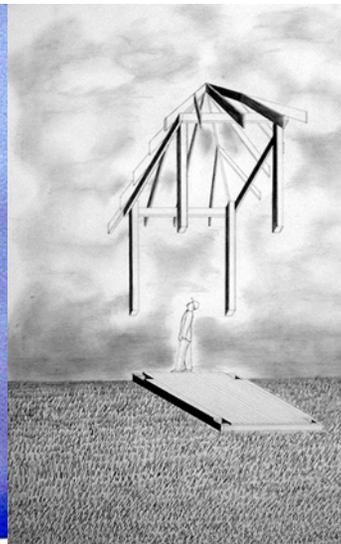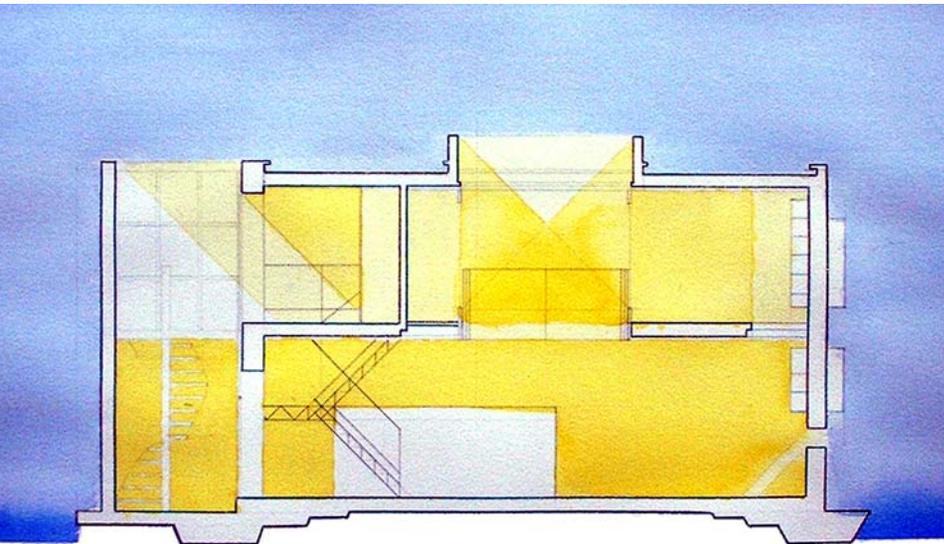Site. Buddhist Temple. Carrolton, VA

In my courses I have adopted a hands-on direct engagement approach, the empirical dimension. It is reinforced by discussions on architectural theories and on building a cumulus of discipline-specific, as well as general information related to the project developed. The students' creative production takes a variety of forms: verbal expression, reading, writing, drawing, and model building. I participate as a *hyper-active* guide opening doors and pointing to possible directions. I am also responsible for building the theoretical space where design explorations take place.

A significant process-oriented hands-on learning experience requires a fluid analysis and synthesis process. Therefore, it is essential that students become critical of their own production, rather than be dependent on me to constantly provide the "go ahead". This dependence is unhealthy and totally based on receiving "treats" or points for submitting the work, and does not necessarily impact the quality of the content. Developing a third person perspective to scrutinize one's own work is an important form of learning. Furthermore, it is essential to cultivate the discipline that must be mastered to develop a design idea to materialization.

Many of my studio projects have involved working with marginal communities providing a setting for learning about architecture based on tangible real conditions. Projects that exemplify the fulfillment of this goal are: the design of an open-air restaurant for a fishing community in the Dominican Republic; the design of the Weyanocke Center, a community of scholars and artisans studying the Native and African American heritage in Charles City; the design of the Peace Center in Carrolton for the Hampton Roads Satipatthana Association; and, the design of a library and cybercafé for the veterans of all wars in Asmara, Eritrea. All required students familiarize themselves with an "other" reality, and how to effectively "role play," to gain a better understanding of the design issues. These projects also allowed students to study the influences of history, religion, and geography on their design. Most importantly, these projects placed students in contact with recognizable people and tangible places with whom they interacted to reach agreement on the intentions and products of design. Projects like these, as well as focused projects, have made it possible to give prominence to real and urgent issues in architectural design, requiring the consideration of natural light and ventilation, and alternatives forms of energy, as well as the understanding of concepts such as the Hanover principles for sustainability, and universal accessibility.

This is a year dedicated to the exploration of mixed-media, its impact on the design process and its products. It is intended to highlight that the *making* in design is also tactile and kinesthetic.

Mobile AIDS Clinic. Arch for Hum. D. Green

the **third year studios** (1997-2003) :: explanation

personal work :: hampton university
carmina sanchez-del-valle, arch.d., ra: associate professor

faculty portfolio :: hampton university
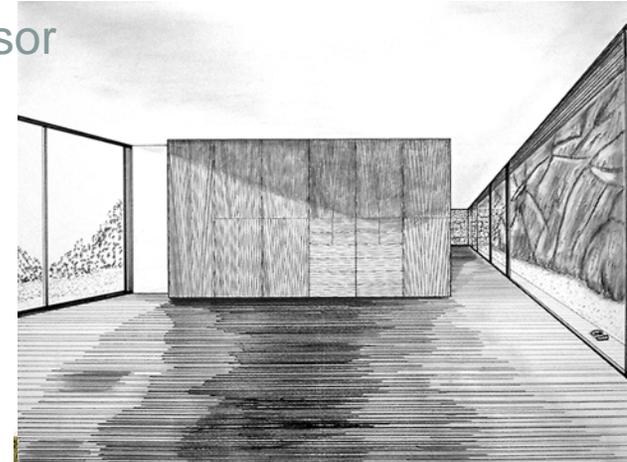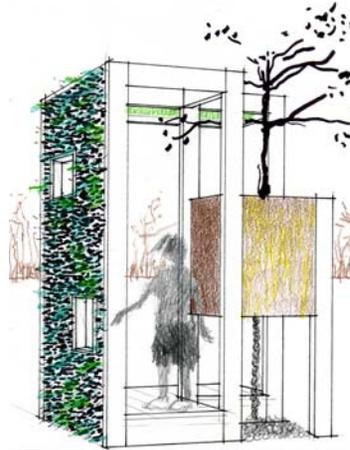carmina sanchez-del-valle, archd., ra: associate professor
and v.m.p price, ra

The competition called for recovering for the community, a vacant lot in a deteriorated area in the perimeter of Garfield Park, Chicago. Competition winners were to develop working drawings and participate in the construction.

Golden Park is a community garden. It takes its name from the golden section. The proposal addresses spiritual, social, and contextual needs. It is a place to come together, learn and actively interact with the soil and each other. The site is divided into two major interdependent components: the garden proper, and the garden community.

The garden considers the reality of the urban soils – filled with toxics, yet still providing a safe means to grow and harvest edible plants and vegetables. The garden is organized into three areas: *phyto-land*, wall-and-container *hydroponicum*, and service garden. Each section is a public square. The phyto-land is the largest area, here gardeners will harvest plants for removing lead from the soil. It will serve as a hands-on area for future botanists, biologists, horticulturalists, hydroponicists, engineers and architects. The container garden will allow to grow edible plants immediately, and is placed farther from the highway. The third area is the service garden where tools will be stored, construction of garden pavilions and a vegetable market can be staged seasonally.

golden park: urban open competition, chicago (2006) exhibited

faculty portfolio :: hampton university
carmina sanchez-del-valle, arch. d, ra: associate professor

The competition called for the design o an outdoor sculptural piece not more than 4' x 4' x 6' that could be easily moved from location to location, and that would promote environmental awareness.

The design provides a space to sit like in an open cocoon to smell, see, and hear outdoor life - thus paradise house.. Originally, one side of the structure was a to be a living wall, but the piece would receive no maintenance for three months, and the vegetation would be damaged by the frequent moving in a truck. It was redesigned using green plastic turf with plastic flowers interwoven into it. This was intended as a move that could lead to a discussion about what is green design. A sturdy native Virginia tree (fringe tree) was planted in a built-in container covered with copper film used for flashing. The water draining from the planter runs on a chain to a bed of rocks. One side of the turf wall is connected to the wood frame with screws and pink hairy marking spacers. Construction materials were limited to big box availability, and small budget,


paradise house: raise the roof competition, maryland national capital park and planning commission (2005)

portfolio :: hampton university
carmina sanchez-del-valle, arch d, ra: associate professor

Abstract

The paper discusses the characteristics of three games that imitate electronic social-textual environments for design, where players are involved in completing a simple task. The conceptualization of the games assumes it is possible to simulate such working environments. The purpose of these gaming-simulations is to develop awareness about the complexity of social transactions, and how media affects them. Also, they are intended to allow for the critical review of the design of digitally mediated interactions, without engaging electronic media. Therefore, all the games use basic traditional materials like paper, pens, and tape. The games are specifically designed as learning/teaching devices for speculative discussion. They can be used as an introduction or debriefing mechanisms in preparation for, or at the conclusion of a virtual design studio.
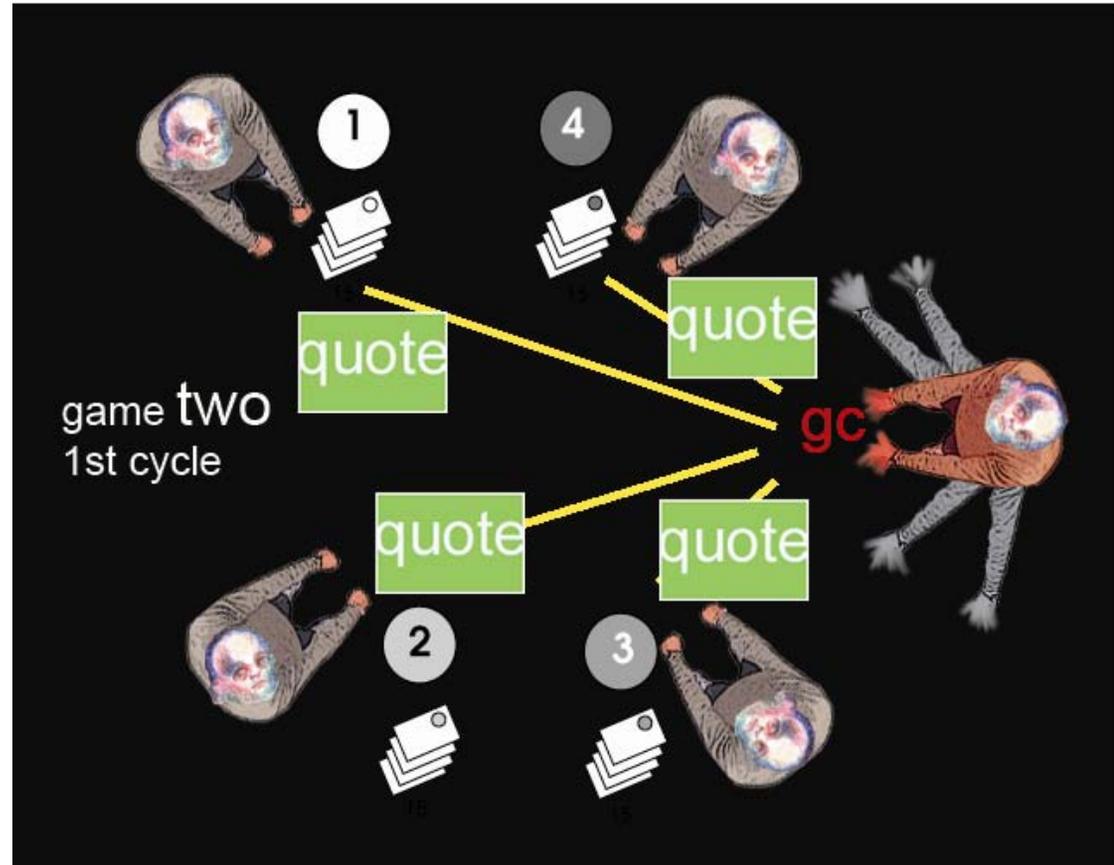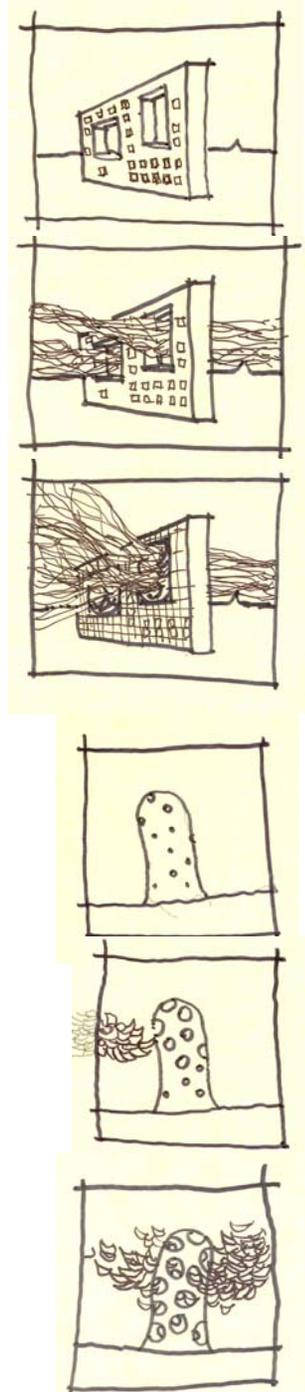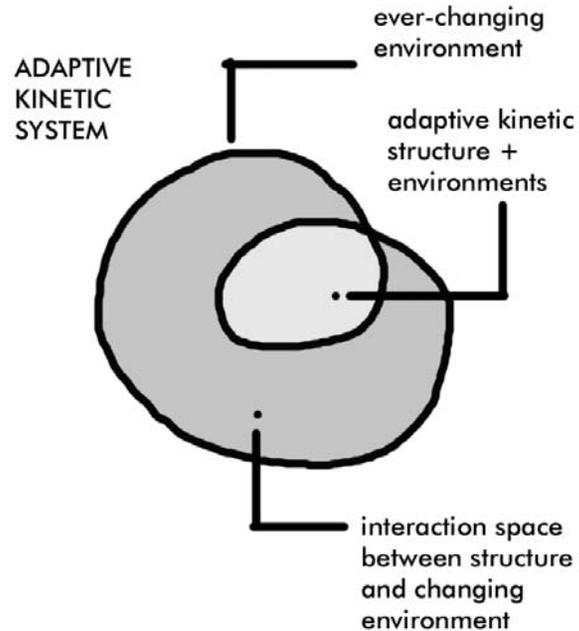
simulating electronically mediated collaboration: three games for synchronous play. publication: *ACSA Proceedings*: "Architecture in Communication" . (*2002*)

faculty portfolio :: hampton university
carmina sanchez-del-valle, arch d, ra: associate professor

The paper proposes a definition for adaptive kinetic structures in architecture generated from an examination of research in engineering and architecture. This characterization introduces the challenges presented by both modeling form and environment, an simulating their interaction. Adaptive kinetic structures react to changing environments, as well as generate their own. These conditions make them appropriate subjects through which the design and implementation of tools for digital prototyping may be explored.

Digital prototyping serves performance and simulation-based design. In general terms, it is an interdisciplinary integrated approach for modeling, predicting, and analyzing the behavior of a system. It is at the core of virtual engineering. In the aerospace, automobile, and manufacturing industries, t is practiced extensively through discrete-event and continuous simulations, as well as simulation environments. This paper provides an overview of digital prototyping commercial software for engineering applications that can be transferred to architecture, and identifies unresolved issues.

ADAPTIVE KINETIC SYSTEM

ever-changing environment

adaptive kinetic structure + environments

interaction space between structure and changing environment

adaptive kinetic architecture: a portal to digital prototyping
publication: Association for Computer Aided Design in Architecture (2005)

faculty portfolio :: hampton university
carmina sanchez-del-valle, arch d, ra: associate professor

The competition called for the design, construction, maintenance, and disassembly of a treehouse. It allowed for two options: accessible or viewable. This proposal is accessible. It was designed for a mature cherry willow using the natural canopy as the treehouse roof. A frame wraps around the tree trunk – the design could not damage the trunk, or the root system. Inflatable bouncing blue balls defined the enclosure wall. On the top of the frames, bell balls moved with the wind. The treehouse went through multiple transformations to accommodate for heavy use for four months. In its last month, the blue balls were removed and replaced with extended fishing nets to climb on, following a request from children visiting the place. The suggested the caterpillar need to transform into a butterfly. This treehouse was used as a place to teach about the butterfly life cycle. There were twelve other winning entries built in the gardens.

Much care was placed on ensuring the joints and the materials would not poise any danger to children or adults. The budget was extremely limited
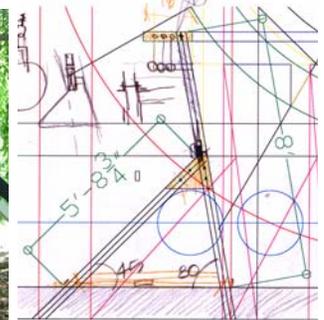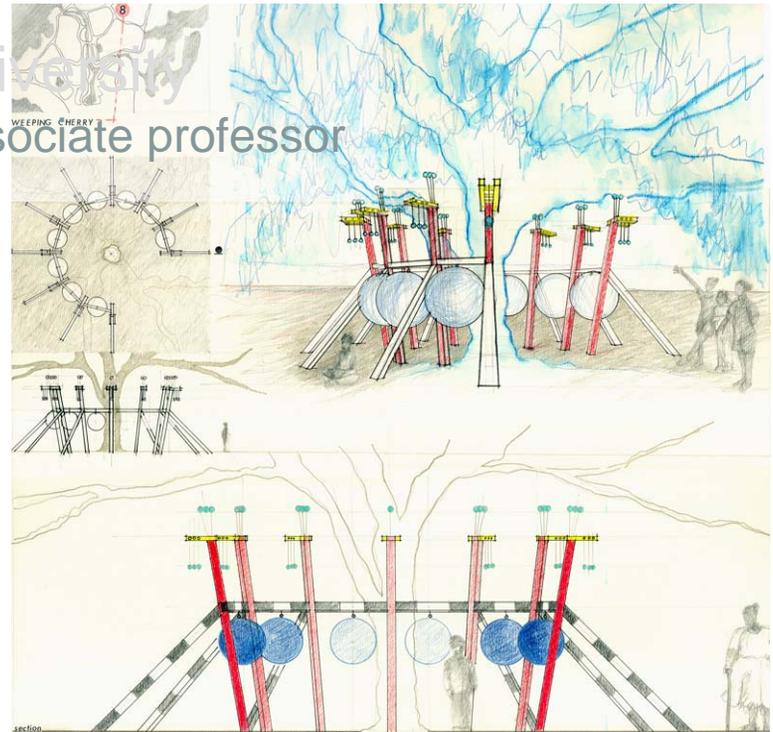
construction and disassembly crew: v.m.price, s. hopson & e. rueger
tremendous treehouse competition: norfolk botanical gardens, virginia
caterpillar treehouse (2004)

faculty portfolio :: hampton university
carmina sanchez-del-valle, arch d, ra: associate professor

This paper presents preliminary findings on the location of Puerto Rican communities in Manhattan since 1890. It aims for a more complete and accurate history of the urban dynamics at work on NYC. It adds to the growing scholarship on how Latinos have contributed to the shaping of the urban landscape in the U.S. A multiplicity of perspectives demands different vehicles and languages to represent and communicate them clearly. A thoughtful and expanded use of maps in architecture and urban design is called for, to construct a more comprehensive perspective of the city, one that links urban form with social and environmental processes, economics, culture, demographics, places, people and events.
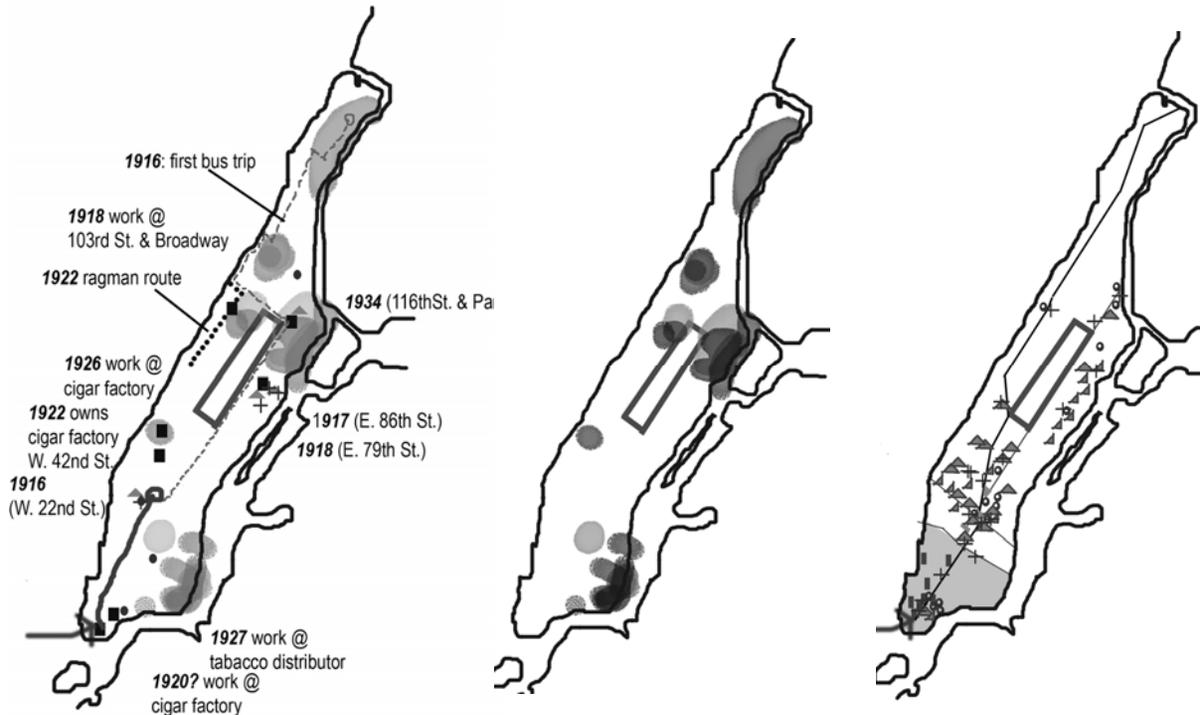

The urban spaces between: finding puerto rico in 20th century manhattan
publication: Association of Collegiate Schools of Architecture (2008)

faculty portfolio :: hampton university
carmina sanchez-del-valle, arch d, ra: associate professor

Abstract

The paper discusses the complex life of a monument largely ignored by architectural historians. The subject is the Columbus Memorial Lighthouse in Santo Domingo, Dominican Republic inaugurated in 1992. The Memorial Lighthouse was the result of a competition held in 1928, sponsored by the Pan-American Union. In its time, the competition was heralded as the largest international event ever held. This memorializing effort was part of a major project: building the great Pan-American Airport midway between the American continents, which never came to be. This paper explores the circumstances in which the project took shape and reached completion. It focuses on the connections between people and events, rather than on the aesthetic merits of the architectural submissions. It aims to recover the lesson lost in time to demonstrate architecture is more than a building. It illustrates architecture continues to be a political device.
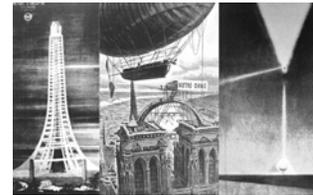
the curse of Columbus: the vanquished airport of the Americas:
publication. ACSA Annual Conference, Miami, Florida (2004)

faculty portfolio :: hampton university
carmina sanchez-del-valle, arch d, ra: associate professor

Abstract (*before the housing bubble burst*)

Residential construction is one of the most noticeable activities affecting our built environment. In the last few years we have experienced a significant increase in investments on new housing, propelled by an economic boom. The state of the architectural profession is highly dependent on the health of the housing industry. Minorities, Latinos in particular, are becoming the most important new housing markets. Builders, who deal with diverse markets, have already recognized that standards must be adapted to accommodate these powerful new cultural demands, and are carefully cultivating a customer base. To maintain and expand their share of participation in the housing explosion, architects must develop the financial acumen and the cultural awareness and foresight needed to collaborate, or compete with developers.

"yo quiero mi casita:" claiming the latino home: presented at **"Odysseys: Worlds on the Move.** ACSA Southeast Regional Conference, College of Architecture, Georgia Institute of Technology, 22-24 February (2002)