RESEARCH AND CREATIVE WORK

HOOMAN KOLIJII

Please note that this is an abbreviated portfolio.
With the goal of integrating natural systems and tectonic structures, the design conceived a flexible, curtain-like, vertical growing system that could be easily integrated with architectural spaces at various scales. The following specific design objectives were considered to be essential for the optimized performance of the system in relation to architectural space and user experience:

• Modular system (expandable and adjustable in size and form)
• Two-side growth (maximum use of growth surfaces)
• Light structure (to make it usable in almost any structure)
• Enclosed system (to eliminate concerns relative to humidity in building structures)
• Inexpensive construction
• Fast/easy assembly and disassembly
• Low tech enough to be easily utilized by the public

From a spatial design standpoint, the flexibility of the system was a core concern so that the system could easily lend itself to a variety of design materials, forms, and purposes. A positive user experience drove the design process, since the ultimate success of the project remains highly dependent on it being embraced by the public. In terms of mechanics, the design technology utilizes Aeroponics, a growing technology developed by NASA, wherein the soil is eliminated and nutrients are atomized in a contained environment to feed plant roots. Faces are lightweight, they are easy to access for maintenance and harvesting needs.

Aeroponics offers several advantages compared to traditional agricultural systems:

• Reduces water consumption by approximately 95% over traditional methods
• Eliminates nearly all pests due to the removal of soil from the system
• Increases growth rates by 5-7 times over traditional systems
• Is light in structure
• Significantly reduces volatile organic compounds (VOCs) that are produced by many man-made building materials
The design is comprised of modular units of enclosed container units similar to pillowcases or bags. The container units then form a paneling system to create surfaces of different sizes and scales. These containers hold small growth units (bearing individual plants), which are filled with atomized nutrients (a very fine mist of water and nutrients of a particle size smaller than 50 microns) that are distributed through a tubing system. The tubing system both feeds and drains the container units and connects them to an external nutrient reservoir. This paneling system is easily attached to any surface. And because these portable growing surfaces are lightweight, they are easy to access for maintenance and harvesting needs.

Garden Curtain, while technically a vertical micro-farming system, also represents a sophisticated and impactful design choice when utilized at a mass scale. The following outcomes are envisioned:

Public Health and Social Impact: With socially responsible design always at the forefront, Garden Curtain is a very inexpensive structure, which makes it accessible to a wider public. The design system could be utilized as a shared farming option in urban locations devoid of traditional growing spaces, as new forms of roof curtain gardens, or simply in private residence as growing walls.

Urban Micro-Farming: One of the anticipated outcomes of this project is to promote urban farming in micro-scales, where land or “horizontal” real estate is rare, but vertical real estate is abundant. A principal goal behind this design is to develop easily-accessible micro-solutions to escalating food costs and possible shortages.

Entrepreneurial Spirit: The idea behind the design is to fabricate a system product for designers, developers, urban agriculturalists—and most importantly, for the public. In short, with a minimal investment any consumer could utilize the system in their built-environments. As noted above, an important goal of Garden Curtain is to empower more people to actively participate in food production, which will eventually have significant impacts on the micro-economies of urban dwellers.

Design Thinking Culture: Returning to the notion of “material imagination” discussed by Gaston Bachelard, one could profit from the duality offered by Soft-Tectonics exemplified in Garden Curtain. At its core, this design concept argues for “building plant systems architecturally” while “planting building systems horticulturally.” Garden Curtain will also introduce new challenges and avenues of inquiry that are worthy of exploration. By disassociating horticulture from “garden” as its only authentic context—and instead associating it with a soft tectonic system—a new mindset for design thinking could emerge. This new perspective not only considers exploring green systems as a viable material culture discourse, but also views it an essential intellectual process for reconceiving the making of buildings.
MODULAR BIO-WALL
(Hydroponic System)
Role: Primary Investigator
Summer 2013

Schematic Drawing of modular containers

Living Portotype

Stages of planting the prototype.

Drawing showing large surface areas covered with modular system. These surfaces can be portable to provide access to the plants and/or as integrated to the building system.
HORTITECTURE

KINETIC CURTAIN GARDEN
Rotating Paneling System as Screen Shading Systems
(Aeroponic & Hydroponic Systems)
Role: Primary Investigator
Fall 2013 - Spring 2014

Collaborator:
David Tilley, PhD, Associate Professor
Department of Environmental Sciences and Technology
College of Agriculture and Natural Sciences

Prototype Presentation at Maryland Day, College Park
HORITECTURE

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Rotating Paneling System as Screen Shading Systems
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frames from timelapse monitoring of the system at the UMD Green House facility.
Overall Maryland Day was a huge success! We had a tremendous amount of people of all ages, professions, and backgrounds come visit our display and inquire more about our Eco-Curtain. There was not one person who did not like our product and were very impressed by the design and visual aesthetics of the panel and planter boxes … … A couple who own a school in Sierra Leone showed a special interest in working with us to buy our product in bulk to install in their schools to improve air quality and have a healthy source of food for the children so they can learn to grow their own produce. I am extremely happy with the outcome of our prototype and the great feedback we received at Maryland Day for our presentation. I believe the collaboration between ENST and ARCH students and faculty was a perfect combination of expertise to create a truly useful product for urban environments.”

-Shaina P.
KNOTGREEN
Net System with Double Shelled Growing Units
(Hydroponic Systems)
Role: Primary Investigator
Spring 2014 - in progress

Double-Shell Grow Cell
This unit allows nutrient circulation, breathing, and evaporation of excess water.
HORTITECURE
KNOTGREEN
(Hydroponic Systems)
Role: Primary Investigator
Spring 2014 - work in progress

Diagram of net system in expansion
GREENBEE
Interlocking Honeycomb Structure
(Growing Medium + Hydroponic System)
Role: Primary Investigator
Spring 2014 - in progress
Located in northeast of Iraq, City of Erbil features one of the oldest human settlements that has been continually inhabited. With a citadel literally defining the city center, Erbil is comprised of concentric circles suggesting the future growth of the city. Recent political and economical development of Kurdistan Region has granted a high degree of autonomy, thereby economical prosperity to Erbil. As a result, the city experiences a real estate boom. New developments disregard the fragile ecological capacity of the city and have completely disregarded the role of landscape urbanism in bringing sustainable solutions to the built environment.

This research follows my visit to Erbil and communications with a number of officials in this regard. The city requires ecological solutions integrated with their social and economical demands. Currently, Erbil lacks any green infrastructure. Scatted parks present large lawn areas, which require maintenance and water. The study examines to expand green infrastructure through networks of urban agriculture, a practice that had long existed till recent decade.

River Farming suggested green networks to serve for mid-scale urban agriculture.

Inner city urban garden - microscale urban agriculture.
Tehran is located between high mountains and desert. Seven major ecological corridors that connected mountains and lower arid lands have disappeared under heavy urbanism and construction. Gozineh Consulting Group was charged for studying and planning a comprehensive green infrastructure master plan. Through partnership with city officials and private parties, our office undertook extensive inventory of existing information. That included mapping and identifying ecological communities in Tehran. A green infrastructure network was identified based on several layers of information (existing green, future plans, ownerships, etc.). Currently we are conducting fieldwork to survey plants and plant ecologies in identified zone. This will help us understand urban ecological systems of identified zones and their connections. One major corridor (Darbandi – Tajrafi) has been selected for comprehensive study and implementation. The study and planning is expected to be completed in 2017. As a partner to GCG, I am an active participant in the project management team (steering committee) and in workgroups.

These strategies support to achieve three aspects of sustainable development in Tehran.

1. First, river-valleys as the canals of air circulation, purify the atmosphere by transmitting and dragging the local northern-southern wind within the corridors, and convey the northern fresh air into the compact city. The parks with the plants can also act as air filters and city lungs. They would role efficiency in order to reduce the air pollutions. Moreover, by preparing a proper foundation for the path of flowing water, there would be no more threatening for the water contamination. Revival of river-valleys is a way to collect various water resources within city, besides water contamination and disturbing the city ecosystems considers as major ecological problems. Second, in urban structure is the major problem which others are derived from.

2. Second, fewer prices would be spent on transportation and time in order to arrive and use the recreational areas and the virgin nature in north of Tehran. That is because of the far distance. Third, people will be able to use the surrounding nature and back-up the experience of our memorable spaces and historical views in our city, like river-valleys, garden alleys and northern rural sites of Tehran. Moreover, by replacing the mentioned linear parks in urban structure network was identified based on several layers of information (existing green, future plans, ownerships, etc.). Currently we are conducting fieldwork to survey plants and plant ecologies in identified zone. This will help us understand urban ecological systems of identified zones and their connections. One major corridor (Darbandi – Tajrafi) has been selected for comprehensive study and implementation. The study and planning is expected to be completed in 2017. As a partner to GCG, I am an active participant in the project management team (steering committee) and in workgroups.

3. Large Scale:

   a. Establishing parallel linear parks as city green infrastructure based on river-valleys.
   b. Placing green infrastructure of Tehran based on the existing river valleys, in order to achieve a green sustainable structure in the city. A comprehensive green infrastructure plan can be created by diverse parks and green infrastructures. Some other strategies support that, such as increasing the per capita green space, especially within the city center. Second, fewer prices would be spent on transportation and time in order to arrive and use the recreational areas and the virgin nature in north of Tehran. That is because of the far distance. Third, people will be able to use the surrounding nature and back-up the experience of our memorable spaces and historical views in our city, like river-valleys, garden alleys and northern rural sites of Tehran. Moreover, by preparing a proper foundation for the path of flowing water, there would be no more threatening for the water contamination. Revival of river-valleys is a way to collect various water resources within city, besides water contamination and disturbing the city ecosystems considers as major ecological problems. Second, in urban structure is the major problem which others are derived from.

   c. Then we are going to propose some strategies, in order to maintain the idea of reviving river-valleys, in two different scales. The revitalizing of river-valleys as linear green infrastructure from north to south of the city, can be a sustainable solution, because it can respond to main three aspects of sustainable development.
TEHRAN GREEN INFRASTRUCTURE PLANNING
Designing Ecological Communities and Networks

Identifying Ecological Communities:
1. Mapping zones
2. Plant survey and analysis
3. Mapping plant communities
4. Ecological capacity study of the identified zones

Keywords: natural features, sustainable development, river-valleys, linear park.
Grundy, Virginia, located in the heart of Appalachia, was in dire need of some creative ideas about what to do with a large, unsightly rock wall that was created when a level building site was cut from the side of a mountain. The building site is the location to rebuild a portion of the downtown outside of the flood plain. The development of a plan to use lights to turn an ugly rock wall into something beautiful was a pro-bono effort undertaken by the Land Design and Simulation Lab at Virginia Tech, and was the direct result of ASLA's Lobby Day.

SEEING LIGHT IN GRUNDY
Reclamation of the Grundy's Quarry and Road Enhancement
Role: Lead Designer and Researcher
Grundy VA
Land Design and Simulation Lab, Virginia Tech
P I : Dr. Patrick Miller, FASLA
2008

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HOVER RIDGE PARK COUNTY MASTER PLAN
Community Charrette and Park Master Plan
Ride: Land Designer and Researcher
Land Design and Simulation Lab, Virginia Tech
Madison County, VA
2008

P.I.: Dr. Patrick Mike, FASLA

Project Statement:
Analysis maps and sketches of different future scenarios were utilized by the design team in a series of community charrettes and public meetings to build a consensus vision for a 180 acre parcel of land in this rural county of 13,000. The vision drew from the historic significance of the site and emphasized preservation of the rural character, part of the regional context and important to residents, while meeting a diverse set of community needs.

Project Narrative:
1. Project Goals and Objectives:
Through a set of fortuitous circumstances, the 13,000 residents of Madison County found themselves to be the owners’ of 180 acres of land, the Clore Farm. While many adjacent counties have experienced rapid growth and sprawl, the residents of Madison County, Virginia are proud of their county’s rural character and Arcadian charm. With many needs and limited resources, the property was being developed incrementally, often in ways that limited future opportunities, sparked controversy within the community and threatened the rural character that made it a special place. The community called upon landscape architects to help them develop a long term vision of the property.

Visioning process: The visioning process had several parts. An online survey of county residents was conducted to identify recreational and other community needs. This was followed by 2 community design charrettes and a public meeting. The design charrette was conducted with a group of stake holders representing different interests within the community. During the first charrette the design team presented its inventory and analysis, and the opportunities and constraints of the region and of the site to the community group. The group then broke into teams and developed 3 rough concept plans for the site. Each team presented its concept to the entire group and they were discussed. Based on feedback from the charrette and presentation, the design team then developed a set of problems and issues that the design needed addressed in preparing a plan. The design team then developed several alternative design concepts that drew upon points of agreement from the charrette and placed them in a larger vision for the future of the site.

The alternative design concepts were reviewed by the stakeholder group in a smaller charrette and a consensus on major points was worked out. The design team then prepared a draft master plan that was presented at a county wide public meeting. Public comments were collected and addressed in a final long term master plan for the site.

2. Project’s Significance: The project demonstrates how the skills of landscape architects can be used to help people, not only reach consensus, but develop a vision for a place that does not yet exist, a vision that is more sustainable because it draws on the cultural and natural heritage of the area and encompasses the needs of the residents.
3. Local and Regional Significance of the Project: Community needs: The residents of the county had many needs that were being considered for the site, including a future school site, athletic fields for the existing high school, recreation league sports fields (soccer, little league and softball), county offices, a community center, a senior center, nature study and rustic camping for boy scouts and other groups. The site had already begun to be developed with no long term plan to guide development.

Preserving rural character: The Hoover Ridge Park is located in a delightful, pastoral, rolling, rural landscape. The property epitomizes many of the qualities valued by the residents of Madison County. The design concept for the site calls for preserving the rural character of the landscape, while providing a series of activity areas across the site that are guided by the undulating and flowing hills of the landscape. The design provides a sequence of experiences, such as water and wood as well as, a range of recreational activities, both active and passive, while at the same time conserving and enhancing the essential rural character of the landscape. A careful analysis of the visual and natural characteristics of the site guided the plan.

The future buildings are to be clustered, sited in a manner that will harmonize with the rural landscape. The color and materials used in construction will be earth tones. The reconstructed red barn is located at the terminus of a tree lined avenue. The board fences on either side of the road reflect the rural character of the region. The reconstructed red barn is an important part of the image of the park with its own visual character and ecosystem. Each area has its own problems and potential. Any development proposed for the Hoover Ridge area should emphasize the need to unify these eleven zones with a common theme.

The plan calls for a grand scale, multi-purpose open space with an irregular and undulating planted edge. This space will accommodate the multiple soccer fields. The open space is large enough to accommodate different arrangements of the soccer fields, allowing turf to recover at high use spots on the field. The area is relatively flat with just enough slope to achieve positive drainage for the athletic fields. Trees which surround and enclose the area will help filter the rainfall runoff from the fields before being discharged into the pond or the creek. When the fields are not used for soccer this area will be a versatile open recreation area for walking, informal games, Frisbee, kite flying and other activities.

Serving all residents: In addition to youth sports, the master plan calls for a community recreation center and a cultural/re- nior center. These facilities can be constructed in stages as the need and funding are realized. They will serve a broad range of age groups.
Booker T. Washington National Monument is the childhood home of an important African American figure in the history of our country. It is located in rural Franklin County. The county wants to direct growth in the rapidly developing area of the county to the Westlake Center, a development overlay district. Westlake Center lies adjacent to one boundary of the Booker T. Washington National Monument. A proposal to develop a parcel within the center and adjacent to the Monument has caused a great deal of concern for the historic integrity of this National Monument. A landscape architect was hired to conduct a viewshed study and provide planning recommendations for the surrounding landscape.

Village Centers: The concept depicted here is proposing two centers with a “village” like character:
1) a Central Village Core, serving the broader commercial needs of the community and
2) a Tourism Oriented Historic Village, related to the cultural heritage and recreation opportunities present in this area.
Project Statement:
Spiraling automobile oriented development results in environments that are homogeneous and difficult to find one's way around. In this project, part of a transportation enhancement project, provides structure and identity to a road corridor. By identifying key decision points and drawing from the unique character of the surrounding neighborhood, a “corridor of confidence” was proposed that would help people find their way from a major transportation artery to the campus of a major medical facility.

Project Narrative:
1. Goals and Objectives: The City of Lynchburg is fortunate to have attracted a multi-million dollar, regional medical facility. Unfortunately, many clients have a difficult time finding their way to and from the medical campus. As part of a transportation improvement project, this project examined how a corridor can be designed to give structure and provide identity to the urban environment – to impart “confidence” to travelers as they travel to and from the medical district that they are indeed on the correct route. By identifying key decision points and drawing from the unique character of surrounding neighborhoods, a corridor of confidence was designed that enhanced the urban environment, while helping people find their way from a major arterial highway to the medical facility campus.

2. Project: Significance: This project addresses a problem of national significance, which is that sprawling automobile oriented development results in environments that are homogeneous in appearance and difficult to find one’s way around. Further this project draws upon wayfinding theory and theories of urban structure and imageability, such as those of Kevin Lynch, to demonstrate how landuse and identity to a road corridor. By identifying key decision points and drawing from the unique character of the surrounding neighborhood, a corridor of confidence was designed that enhanced the urban environment, while helping people find their way from a major arterial highway to the medical facility campus.

3. Local and Regional Significance of the Project: The major elements of the plan, and how they draw upon the history and character of the area, are described below:

District Avenues and Nodes of the Corridor: The analysis revealed 3 distinct areas of the corridor: commercial, residential and residential. Each area has a unique set of issues that need to be responded to in the design in order to unify the corridor while bringing out our unique characteristics of each area. In addition, 6 nodes were identified that are major decision points along the corridor and that can be enhanced to provide a unique and memorable experience. There are 4 “transportation nodes.” These areas are where the corridor begins, ends or changes direction. These can be enhanced, not only to provide identity to these areas of the corridor, but also to help in way finding. Roundabouts are proposed at 2 of the transportation nodes. Research has shown that roundabouts can improve traffic circulation and safety.

Two additional nodes are “community nodes.” These are areas adjacent to the right of way that have been developed to give identity to the areas and serve the local community.

Corridor Entrance: This area is important because it is where the traveler enters the corridor as they leave Highway 29 and turn onto Kemper Street. It is the first experience of the corridor and builds anticipation of what is to come.

Design Characteristics: Corridor of confidence was designed that enhanced the urban environment, while helping people find their way from a major arterial highway to the medical facility campus. It also lacks people scale detail and places. Most places along this corridor of confidence were designed to give identity to the areas and serve the local community.

Transportation Node 1: This area is located on the intersection of Kemper Street and Park Avenue. It has a significant visual problem due to signage. The proposed changes will change the image of the corridor.

Transportation Node 2: This area is located on the intersection of Kemper Street and Fort Avenue. It is important because it is a major transportation node. The proposed changes will change the image of the corridor.

Historical Residential Areas: Historic buildings provide a strong identity for the corridor and builds anticipation of what is to come.

Kemper Street Community Space: Kemper Street is vehicle oriented commercial development. It is proposed that vertical columns be located along both sides of the street. Public art in the form of murals will be placed on the facade of a building located adjacent to the road right-of-way. The murals will provide places for people to walk for exercise and to announce city festival and holiday seasons.

Walkways are provided on both sides of the street with street furniture to create a strong positive image and for the neighborhood. The park will provide a center of activity and drawing from the unique character of the surrounding neighborhood.

The corridor of confidence was designed that enhanced the urban environment, while helping people find their way from a major arterial highway to the medical facility campus.

Refer to the project for detailed analysis and design characteristics.
RAZI CINEMATIC CENTER
Integrating Architecture and Urban Landscape
Building as Gate: Creating an Urban Promenade
Role: Chief Architect and Lead Designer
Gozineh Consulting Group
Tehran, Iran
2002-3 (design) 2007 (construction completed)

The second biggest cinematic centers in Iran, Razi Cinematic Center is located in central south part of Tehran in a dense low income community. The site is in the south part of Razi civic park, a 27.5-hectar park which serves as the major public open space for the district. The park did not have an entrance from the south border, and the cinema site was the only open parcel which could potentially provide an access from the district to the park from the south bank. Design concept responded to this need and provided a multi-purpose promenade, serving both the park and a threshold for the Cinematic center.

I supervised a team of 3 architects, one structural engineer and two mechanical engineers. Project included: SD, DD, and CD for a design area of approx. 30000 sf.
The site of Diplomatic Recreation Center is located in north of Tehran on the foothill Alborz mountain chain. Gozineh Consulting Group was charged to study, and plan the site. We studied various aspects of the site: landform, micro-climates, vegetation, drainage patterns, and possibility for the public use. Our study vision is to plan a site with minimum interventions to the natural setting, while protecting the site from further erosions and deteriorations that had been started due to storms.

On the upper stream, we created a number of check dams made out of gabions and filled with existing rocks to slow down runoff water and to enrich the micro-climate of the stream. The team also suggested expanding planting evergreens (a project that had started by Tehran Municipality) in identified areas. Lines of erosion in valley conditions were filled with stone and rock to avoid further loss of fertile soil. Biking, hiking, and horse trails were designed based on topography and also on-site observations. A small garden (utilizing on-site stream water) and a public plaza (featuring reflecting pool) were design and executed in the lower lands. I was actively involved in the study and planning of the site. I was also actively involved in the execution of the lower garden and prepared concept plans and schematic diagrams for the public space with reflecting pool.
Tavalod Park is located along a valley condition in dense urban environment. The design responds to the natural drainage patterns of the topography and creates a constructed wetland with gravel edges. Gravel and sand allow for further filtration of runoff water from the surrounding hardscapes. The park is 5.5-hectare and is surrounded by residential neighborhood from three sides and a semi-industrial zone from the forth side is the project to be converted to a community scale park.

The project includes a vast pond, a center for gathering, in the northern side and athletic fields in the southern side. A thematic wall separated the park from the semi-industrial zone. The project started from study and analysis phase to working drawing phase.

Eco-Cultural Wall is a design-build of approx. 2200 feet long wall with folklore theme using traditional brick and on-site stone and wood while respecting natural environment and existing plants along a pedestrian path way in northern Tehran. We had to survey the existing condition including all trees and plants incorporate them in the design. Some epic folklore stories informed themes of the design as points of interest where introduced public nodes.

Eco-Culture Wall
Designing with Environment
Role: Lead Architect - Team Leader
Gozineh Consulting Group
Tehran-Iran
2003

Tavalod Park
Urban Wetland Park
Role: Lead Architect
Gozineh Consulting Group
Tehran-Iran
2003
Ministry of Oil, the largest economical organization in Iran, suffered from a lack of concentration of its administrative buildings in the capital, Tehran. The Ministry has over 53 buildings and facilities spread all over the metropolitan Tehran. In 2002, the ministry held a national architectural competition in order to design a 100,000 Sq. meter Iranian Oil Industry Headquarters, a home for the ministry and all its companies. It was the biggest competition in the history of Iran. Eight top national firms were selected and asked to introduce an international joint winner. Farhad Ahamadi Architects was among the invitees. Farhad Ahamadi invited me to develop and lead a competition team, which included outsourcing personnel from out of the office. I served as the team leader, lead designer, and also associate project manager for administrations. Our internationally renowned joint winner was the Battle Mc Carthy Co. from the United Kingdom.

Site: The competition site is located in Abbas-Abad Zone, an undulating city reserved area in the middle of the capital. The Tehran’s Master Plan, from 40 years ago, has specified this zone as reserved lands of the capital to be allocated to highly national priority projects. A revision on the master plan was accomplished almost two decades after the earlier one, proposing some subdivisions on the land. As a result, new road constructions have removed the integrity from those undulating hill zone. The roads almost look like scars on the topography. In the last 15 years, four major national projects have been developed in the zone and two more are under the discussion. The developed projects are: National Iranian Library (NIL), National Iranian Academy of Art and Sciences (NIAAS), Metro Station, and a regional park. The other two includes this project and a civic park adjacent to the competition’s site.

NIOC HEADQUARTERS
International Competition in Sustainable Design Integrating Building and Landscape
Paterner: Battle McCarthy Landscape Architects, UK
Role: Lead Designer (design core), Team Coordinator
Farhad Ahmadi Architects, Tehran, Iran.
2002.
MASHAD CULTURAL CENTER
Role: Design Assistant: as-built survey, program study, design development
Gozineh Consulting Group
Mashad, Iran.
1998
PARK PAVILION
Kinetic and Portable Shelter Design
Role: Lead Designer and Researcher
JA Workshop
2004

LANDSCAPE LIGHT DESIGN
Design, Prototype, and Fabrication
Role: lead designer and project manager
JA Workshop
2004
INSIDE :: OUTSIDE
Connecting Building and Landscape
Material as Process

STRAW WALL
JA Workshop | Design-Prototype
Tehran-Iran | Semi-transparent partition
straws (opposite) and glass tubes
2004-2005

CURTAIN CONCRETE
Design-Prototype experiment
I collaborated with A. Borhani in expanding our earlier STRAW WALL into concrete. We made a series of panels (16” *16”) using multicolor drinking straws. We collaboratively worked on production process and implementation.
2011

INTERACTIVE WALL
Role: lead designer and project manager
JA Workshop | Schematic Design and Design Development
Tehran-Iran
2004