It may at first seem odd to suggest that design has an important role to play in the implementation of new public policies and the encouragement of lifestyle changes, both of which are necessary to make our cities more sustainable. Although we accept the fact that the physical environment is integrally related to human experience, we do not generally perceive design of that environment as a method for implementing behavioral change. Transformations of city form, suburban redevelopment and encouragement of new human habits are more readily understood as political, economic and cultural processes, while, design is typically viewed as having a limited role, if any, to play in affecting public outcomes.

The Van Alen Institute, a not-for-profit organization headquartered in New York City, advocates the recognition of design both as a system of inquiry and as the product or form resulting from a multidisciplinary civic process. Through our core programs which include design competitions, post-graduate fellowships, exhibitions, symposia, publications, and consulting to governments and other non-profit organizations, we promote dialogue about the role of design in the civic realm and support innovative design processes that shape and enhance civil society. Our experience shows that design, which we broadly define to mean an interdisciplinary process of idea exchange that uses visual language as well as other means of communication, is evolving from a position of relative insignificance in the worlds of politics and business, to a potent tool that can be used to prompt innovation and encourage change. The effect of this should be that design is more readily accepted as a strategic partner by world leaders and urban thinkers as we seek solutions to the challenges of the “urban age.”

To illustrate the possibilities, I provide several recent examples of projects undertaken at the Van Alen Institute. In each case, a design process, or a design outcome has been or is being used to open up the discourse on sustainable cities, to solve an urban problem, or to prompt new public policies that will lead to a more sustainable future. In reading about these projects you will see the myriad of ways we interpret design and apply its use to public problem solving. As Paola Antonelli Senior Curator of Architecture and Design at the Museum of Modern Art (and former Van Alen Trustee) has often stated, “Everything is designed, one way or another.” This applies to objects of course, but it also applies to policies, places and programs. At Van Alen we appreciate the contribution that can be made by design to improving the prospects for a sustainable world.

Transformative Design - Recent Projects at the Van Alen Institute

For over a century, the Van Alen Institute has cultivated an understanding of architecture and design and its influence on civic space. While we recognize that design in and of itself cannot solve all the world’s ills, we value the contribution that design can make to transformative change. Among the many possibilities, we know that design can increase understanding and appreciation of the issues facing the world today, open minds to the wider social, technological, cultural and environmental choices we must now confront, and help people envision a different future thereby creating support for the difficult changes ahead. The projects described below represent a cross section of recent design work supported by Van Alen that has the potential for transformative impact on policy or urban environment. Additional information on these and other Van Alen projects can be found on the Van Alen website at www.vanalen.org.

1. Productive Public Space: Exploring Hybridities in Informal Settlements
   Chelina Odbert and Jennifer Toy – New York Prize Fellows 2008

Kibera is one of 200 slums in Nairobi, Kenya. Its fluctuating population is estimated to be between 700,000 and 1,000,000 residents. The largest informal settlement in Sub-Saharan Africa, Kibera occupies a space just two-thirds the size of New York City’s Central Park. The issues faced by this community illustrate the challenges of slum living for residents and governing bodies alike and include water, sanitation, and shelter. Productive Public Space is a research project that explores alternative models for poverty alleviation, quality of life improvement, and environmental remediation through the design and production of public space. The project began with Odbert and Toy, founding members of the Kounkuey Design Initiative (KDI), spending more than two years working with Kibera community members to design and implement the concept of productive public space—an open space, created in collaboration with its client community, that links
physical improvements to self sustaining micro-enterprise activities. They conducted a series of community workshops that led to an understanding of the region's critical need for youth employment opportunities, trash collection, improvements to water quality, and flood prevention. Through these workshops, Odbert and Toy identified an opportunity for intervention in the wide, trash-covered banks of the polluted rivers that cut through the settlement. The riverbanks, which are technically commonly owned space, if free of trash, were large enough to house community amenities such as composting toilets, a community garden and a children's playground. Meanwhile, the trash on the banks, 80% compostable and 15% recyclable, could become an untapped revenue stream with the potential to generate sufficient income to cover operation and maintenance costs for the site's amenities.

During their fellowship term at Van Alen, Odbert and Toy used their hands on work in Kibera as a platform for further developing and expanding their concept of productive public space. Odbert and Toy organized a series of roundtables with a wide range of professionals—architects, planners, economists, environmental experts, funders, public health practitioners and policy makers—to critically explore the significance of public space in informal settlements. Among the institutions represented at the discussions were Acumen Fund, the Blacksmith Institute, Buro Happold, the Center for Sustainable Urban Development, Design Trust for Public Space, Great Eastern Ecology, Malkenson Foundation, Metropolis, Peter L. Gluck & Partners, Project for Public Spaces, Sustainable South Bronx, Urban Think Tank, TILL Design, WRT Design and more. The roundtable conversations served to generate a collective definition of 'productive public space' and a working model of its forms, uses and applicable contexts both nationally and internationally.

As a culmination of these conversations, and as a public statement about their commitment to community-driven design, Odbert and Toy additionally commissioned a select group of artists and graphic designers to create a poster series that illustrate and advances new ways of thinking about public space in informal settlements and low-income areas. Contributing artists included Jenny Beorkrem of Ork Posters (Chicago, IL), Prem Krishnamurthy and Adam Michaels of Project Projects (New York, NY), Leah Murphy (Philadelphia, PA) and Mindy Watts (Philadelphia, PA). The posters were reproduced and distributed throughout Nairobi, New York and other major cities as part of an awareness campaign.

Today Odbert and Toy continue their work on Productive Public Spaces. They have successfully completed several phases of construction and community building in Kibera, and are advising other informal settlements around the world about ways to create their own ‘productive public space.’ (Additional information about this project can be found at www.kounkuey.org.)

2. CITY-SINK
Denise Hoffman Brandt - New York Prize Fellow 2009

PlaNYC sets as its goal a 30 percent reduction in New York City’s carbon footprint by the year 2030. It also sets as a goal “to clean our air while we safeguard our water quality.” A number of the plan’s 127 initiatives address these goals including the “one million tree initiative,” which is meant to add one million trees to New York City streets, forests and parks, as well as private (and public) parking lots, houses and institutional properties.

In 2009 Denise Hoffman Brandt, principal of Hoffman Brandt Landscape Design and a professor of Landscape Architecture at the City College of New York, completed a fellowship project called CITY-SINK at Van Alen. CITY-SINK investigates the physical, economic, and policy potential to catalyze urban carbon sequestration reservoirs, or sinks, and reframes urban planting practices as an ecologically operative program. Combating a common idea of the city as 'unnatural' and reciprocally, that nature is 'un-urban', Hoffman Brandt reframes urban planting as an operative program rather than a scenographic device. Coincident with the launch of the Million Trees programs in New York and Los Angeles, CITY-SINK provokes and challenges these efforts to adopt a more environmentally productive framework for urban landscape transformation—one that understands trees to be functional organisms dependent upon complex environmental processes. According to Hoffman Brandt, the average life of a street tree is between 2 and 10 years, which is a direct result of planting practices that treat trees as artifacts—isolating them from sustaining vegetative plant associations and constraining soil and hydrologic processes. Urban street trees are more like totemic objects than eco-system constituents. Without comprehensive planning and management, she argues, Million Trees has the potential to release more carbon through installation/management energy inputs and dead wood decomposition than it sequesters.

During her fellowship residency, Hoffman Brandt developed a range of sink apparatus and multi-scale deployment tactics that work with plant and soil ecologic processes to amplify carbon sequestration. These sink landscapes diversify the image of the city to accommodate lifecycles of disruption and decay, demanding a public re-evaluation of the urban landscape as civic investment and coordination of
professionals across science, design, law, policy, and economics. A working model of a CITY-SINK was displayed at Van Alen and Hoffman Brandt conducted workshops to describe its workings, including the way in which private home owners could employ this environmentally progressive technique in lieu of tree planting or manicured landscaping.

Today, Hoffman Brandt continues her work on CITY-SINK. The project is a finalist in the Buckminster Fuller Challenge, “an annual international design competition for initiatives that have significant potential to solve humanity’s pressing needs.” Hoffman Brandt also continues to refine the concept and to discuss its applicability with New York City policy makers.

3. **Lower Mississippi River Delta**
   Van Alen Institute for the Environmental Defense Fund – 2009-2010

Since Hurricane Katrina, a great deal of analysis has been directed toward finding ways to protect the Lower Mississippi River Delta (“LMRD”) and those living and working along it, from the effects of future storm surges. The issues are complex. Aside from technical and design challenges, there are numerous stakeholders representing a multitude of financial, social, political and cultural interests, as well as multiple government agencies with overlapping jurisdiction. The Environmental Defense Fund (“EDF”) has been at the forefront of the effort to re-institute an ecologically sustainable delta system. An outspoken critic of the U.S. Army Corps of Engineers’ plans to rebuild failed levees, the EDF approached Van Alen to help it jumpstart a design, engineering and political process that has stagnated, while environmental degradation continues at a rapid pace.

Van Alen is currently in the first phase (research and analysis) of a consulting assignment whose goal is to identify public design processes, including but not limited to a design competition, that will result in a realizable scheme for diversion or re-engineering of the Lower Mississippi River Delta so that coastal wetlands are re-established, navigation is maintained or enhanced, and human and cultural impact is mitigated. In addition, we will identify design processes that help to educate the public and create a constituency that supports this initiative.

For this assignment, Van Alen expects to tap into an international knowledge base as we explore the design processes, scientific innovations and public policies that have been implemented in deltaic regions across the globe. At the same time, we expect to create a community-based envisioning program that helps individual stakeholders learn about the consequences of a “no action” alternative, and discuss the problems and prospects of the design alternatives that are proposed.

4. **From the Ground Up: Innovative Affordable Green Homes**
   Exhibition at Van Alen Institute – Design Competition by Syracuse University - 2009

One of the many challenges faced by older cities is a predominance of vacant lots (and now foreclosed properties) that diminish the quality of the neighborhoods and communities in which they are located. Re-use of the existing housing stock when possible helps to maintain the supply of affordable housing. But what happens when a lot is already vacant or the existing building needs to be demolished? What form should new housing take if it is built here at all? With stringent budget constraints and its reliance on public support, affordable housing is neither politically nor economically the most likely candidate to foster design innovation—or is it?

"From the Ground Up: Innovative Green Homes" was a design competition undertaken by Syracuse University School of Architecture in 2008/09. The competition sought to produce homes in the 1,100-1,500 square foot range that would cost no more than $150,000 and serve as green prototypes for formerly vital, urban residential neighborhoods throughout the United States. Both the essential problem of how to create affordable and sustainable homes, and the creative solutions devised through the Syracuse competition, drew Van Alen’s attention. We invited Syracuse University to present an exhibition of the winning competition designs so that others could learn from their experience. In conjunction with the exhibition, Van Alen presented “Building the Innovative Green Home” a panel discussion with Karrie Jacobs, design writer, Mark Robbins, Dean of the Syracuse University School of Architecture, and representatives of the winning architectural teams. The panel discussion (which was open to the public), focused on several key questions: What made it possible to go from competition to fruition in this case? What can we learn from the Syracuse model about ways to develop well-designed affordable housing elsewhere in the country? Did the design competition, as a process, promote better design or a greater likelihood of development? Were new strategies used to overcome the complex forces that often stand in the way of innovation (be they market, cost, community, political or other)? What did the winning architects learn from participating in this venture?
Van Alen Institute (“VAI”) in collaboration with the National Parks Conservation Association (“NPCA”) and the support of the National Parks Service (“NPS”) is embarking on a two-year initiative that will include a national design competition, conference, travelling exhibition and publication. The purpose of this endeavor is to broadly test and refine new design principles for the preservation and stewardship of the United States national park system in the 21st Century.

As custodians of the national parks, the NPS is constantly maintaining, upgrading and replacing park infrastructure in order to preserve the parks and to attract and better serve park visitors. During the past two decades the agency has struggled to meet the increasing demands of its aging park system. Lacking a unified vision to guide park design and preservation, the NPS in 2008 partnered with NPCA and VAI to host a two-part conference entitled “Designing the Parks” (www.designingtheparks.com), in order to generate a draft set of “best practice” design principles. Now, with the approaching NPS Centennial fueling momentum for an overhaul of historic park infrastructure and stewardship throughout the country, NPS is poised to field test the draft principles in order to gauge their validity and universality across different park typologies, and refine the principles as necessary to ensure their positive impact on future park design.

Design competitions can be organized in a number of different ways. In this case, NPS must ultimately apply a single set of design principles across a wide variety of park types. Therefore, VAI has proposed a two-part competition whose framework corresponds to the seven (7) NPS geographic regions: Northeast, Mid-Atlantic, Southeast, Midwest, Inter-Mountain, Pacific Northwest, and Alaska. VAI will assemble a national Design Advisory Committee (“DAC”) to consult on the selection and on the specific design issues and challenges for each park to be studied. VAI will then prepare seven competition briefs (one for each site), that present a consistent design challenge, but also highlight the specific issues to be addressed by the site. The briefs will be distributed to all schools of architecture, landscape architecture and related design fields across the country, calling for faculty-led studio(s) during Spring 2011 addressing one or more of the seven (7) briefs. Competition entries will be evaluated at the regional level first by a jury comprised of park managers, planners, and design professionals with relevant experience in that park typology and/or region. A single regional winner will be selected to advance to a second round competition in Washington DC for the national “Designing the Parks” prize.

The Challenge of Change

There are many reasons why Americans are reluctant to change their attitudes and behaviors. Fundamentally, though, our culture considers the needs of “the collective” as somehow at odds with the rights of the individual that are so central to our economic and political framework. Add to this the various economic interests that support the status quo, and you have a situation where U.S. politicians lack the will to propose important policy shifts for fear they will result in political suicide.

If the country’s political and economic leaders are uncomfortable spearheading necessary change, perhaps we need to engage the American public in new ways that build support for change and encourage the policy shifts that now seem unimaginable. Design, if viewed more expansively, can provide innovative strategies both for solving specific urban problems and for engaging the public and policymakers in a dialogue about the issues we face and the need for sustainable change.

The five examples cited above show different techniques for the application of design ideas to political, cultural and economic processes. Whether design is used as an analytic or research tool, a source of innovation, an educational method, a communications strategy, a way to foster “buy-in,” or in the most classic sense, as a method of creating better physical environments (or describing the environments themselves), broadening our concept of its use also increases our opportunities for implementing change. The Van Alen Institute will remain at the forefront of this movement, breaking down barriers between disciplines and creating a new paradigm for collaborative innovations that enhance the civic realm and supports sustainable urban environments.