

ARE VERTICAL FARMS THE FUTURE?



### National Design Journal A Renefit of Museum Membership Fall 2010, Three Dollars

### From the Directors

Bill Moggridge, Director, and Caroline Baumann, Associate Director

Greetings, Members and friends of Cooper-Hewitt, National Design Museum!

"What you do impacts just about every moment of our lives, from the words we read to the public spaces we enjoy to the devices that help us do our jobs and run our homes and care for our families. Your work can determine whether a family has shelter or whether a village has clean drinking water. It can help fight disease, educate a child, and ensure that we pass on a cleaner and healthier planet to all our children and grandchildren. And your efforts grace our world with works of beauty that lift our spirits and stir our souls like nothing else can."

First Lady Michelle Obama spoke these words on July 21st as she celebrated the 2010 National Design Awards at the White House,



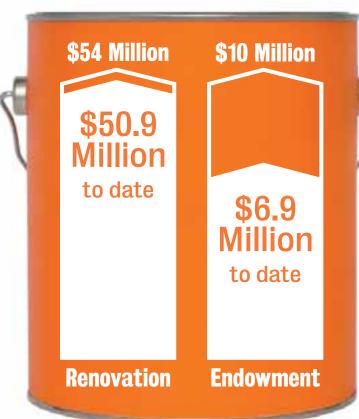
elegantly expressing the values, philosophy, and reach of our National Design Museum. Please join us on October 14th for the second part of this celebration, the National Design Awards Gala.

The theme articulated by the First Lady is also vividly communicated in our current exhibition, National Design Triennial: Why Design Now?, which answers the question with 134 inventive, ingenious, and creative examples of design from around the world. The second exhibition in the Design for the Other 90% series, opening next fall, also builds on these ideas. In parallel counterpoint to these displays of emerging thinking about design, we are enjoying exhibitions that benefit from our permanent collections and curatorial scholarship. Ted Muehling Selects: Lobmeyr Glass from the Permanent Collection will be on view for the rest of the year in the Nancy and Edwin Marks Collection Gallery, displaying the design drawings and books from the collection that connect the designers' intention to the exquisite craft of the glass. Set in Style: The Jewelry of Van Cleef & Arpels opens on February 18, 2011, in an exciting exhibition designed by Patrick Jouin that conveys the historical innovation and process development of the pieces. The connection between abstract art, fashion, and textiles will be illustrated by Color Moves: Art and Fashion by Sonia Delaunay, opening March 18, 2011, with magnificent examples of the renowned artist's work from the 1920s and 1930s.

We are delighted to report that, with support from Cooper-Hewitt trustees, the Smithsonian, New York City, New York State, and friends of the Museum, the RE:DESIGN Capital Campaign has reached 90% of its \$64 million goal (\$54 million for the renovation and \$10 million for the endowment). We are eagerly looking forward to the completion of the renovation project, when we will have 60% more exhibition space in play, allowing a permanent exhibition called What Is Design? to occupy the first floor, as well as individual shows and events on the floor below and two floors above. We have already occupied our new off-site collection storage and conservation facility and are watching the transformation of the two townhouses linked to the Carnegie Mansion that will house the National Design Library, our Master's Program in the History of Decorative Arts and Design, and facilities for our staff. We will move into the townhouses in the middle of next year. allowing work to proceed on renovating the existing exhibition galleries, restoring the historic fabric of the Mansion, improving visitor facilities, and adding a new versatile "white-box" gallery on the entire third floor. We have exciting plans to spread our wings during the two years of the Mansion renovation, with exhibitions in other locations in New York and activities around the country, as well as expansions of our virtual and multimedia presence. We encourage you to join Cooper-Hewitt's RE:DESIGN and support the transformation of the nation's design museum.







Cooper-Hewitt has reached the 45% completion mark on the construction work being carried out on its two townhouses, at 9 and 11 East 90th Street. This past summer, historic features were removed for restoration, and the construction crew carried out interior demolition and the removal of outdated plumbing, lighting, and sprinkler systems. The most exciting progress so far has been on the first floor of 9 East 90th Street, where space has been unveiled for the new entrance foyer and exterior work is being done to install a lift, repair the sidewalk, and restore the wrought-iron fence. When Phase One is completed, this townhouse will be the new public entrance to a modernized National Design Library and the Museum's curatorial and administrative offices.

Cooper-Hewitt recently received wonderful news about two major grants to the RE:DESIGN Capital Campaign: an additional grant of \$300,000 from New York City's Department of Cultural Affairs, and an \$800,000 challenge grant from The Kresge Foundation. The city's increased support at this important juncture is truly helping this vital project become a reality. Known for its funding of transformative projects, The Kresge Foundation is one of the most selective and esteemed foundations in the United States. Its grant is contingent on the Museum's raising the remaining \$3.1 million for the renovation by September 30, 2011.

With the support of its Members and friends, Cooper-Hewitt will meet The Kresge Foundation Challenge and complete the \$54 million renovation goal. Please help the Museum with this invaluable opportunity by returning the enclosed gift form or by making your contribution online at www.cooperhewitt.org/redesign/. For more information, please contact the Campaign Office at 212.849.8322 or redesignch@si.edu.

### On View



### **National Design Triennial:** Why Design Now?

THROUGH JANUARY 9, 2011

Why design now? Designers, entrepreneurs, and citizens around the world are answering this question by creating products, proposals, buildings, landscapes, messages, and more that address social and environmental issues and opportunities. The fourth installation in Cooper-Hewitt's acclaimed National Design Triennial exhibition series, Why Design Now? presents innovative work across many fields of design practice, from architecture and products to fashion, graphics, new media, and landscapes.

National Design Triennial: Why Design Now? is sponsored by



Generous support is provided by Agnes Bourne and the Mondriaan Foundation.

The exhibition is also supported in part by the Norwegian Consulate General in New York, the Esme Usdan Exhibition Endowment Fund, the Ministry of Culture Denmark, and public funds from the New York State Council on the Arts, a State agency.

Additional funding is provided by Dr. Leonard Polonsky and Dr. Georgette Bennett, The Consulate General of Finland, the Consulate General of the Netherlands. The Consulate General of Switzerland in New York. The Cultural Services of the French Embassy/La Maison Française, and the Office of Cultural Affairs, Consulate General of Israel in New York.



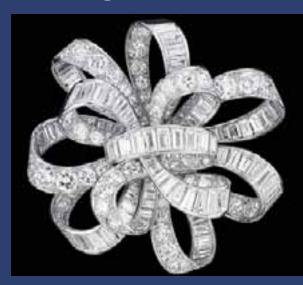
### **Ted Muehling Selects: Lobmeyr Glass** from the Permanent Collection

THROUGH JANUARY 2, 2011

Renowned American designer Ted Muehling curates an exhibition of works drawn from the Museum's recent acquisition of 163 rare examples of glass from J. & L. Lobmeyr of Vienna, Austria, dating from 1835 to the present day. Muehling is the tenth guest curator of the Nancy and Edwin Marks Collection Gallery exhibition series devoted to showcasing the Museum's permanent collection.

Ted Muehling Selects: Lobmeyr Glass from the Permanent Collection is made possible in part by support from the Austrian Trade Commission, WIEN PRODUCTS, Arthur Liu, the Austrian Cultural Forum NYC, Dale and Doug Anderson, Prairie Pictures Inc., and anonymous donors.

### **Coming Soon**



### Set in Style: The Jewelry of Van Cleef & **Arpels**

OPENS FEBRUARY 18, 2011

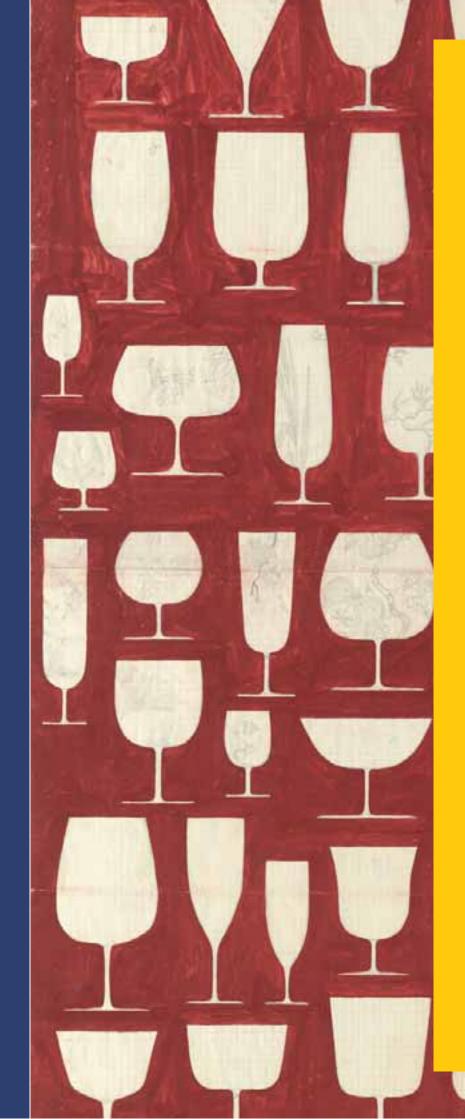
Since it opened its first boutique in Paris in 1906, Van Cleef & Arpels has been one of the world's most innovative jewelry firms. Set in Style comprises more than 250 jewels, timepieces, fashion accessories, and specialty objects by the luxury jeweler, including many created exclusively for the American market. Examining the objects through the lenses of innovation, transformation, nature as inspiration, exoticism, fashion, and celebrity, the exhibition retraces the evolution of the prestigious firm and details its most celebrated achievements in



### Color Moves: Art and Fashion by Sonia Delaunav

**OPENS MARCH 18, 2011** 

Known primarily as an abstract painter and colorist, Sonia Delaunay applied her talents and theories to all areas of visual expression, including graphics, interiors, theater and film, fashion, and textiles. Her trademark was the sense of movement and rhythm created by the simultaneous contrasts of colors. Color Moves, the first exhibition on the artist in America in more than thirty years, focuses on Delaunay's designs, textiles, and garments brought together from museum and private collections throughout Europe and the United States.



### National Design Journal

**FALL 2010** 

- o2 From the Directors
- os RE:DESIGN Phase One Renovation Update
- **04** On View
- o6 National Design Awards at the White House
- **os** Teen Design Fair in Washington, D.C.
- 10 Are Vertical Farms the Future? by Dickson Despommier, Ph.D.
- 14 Shenandoah Middle School Museums Magnet School by Maria Jimenez
- 16 Design Process: Rodarte
- 18 National Design Collection: Recent Acquisitions
- 20 Ted Muehling Views Lobmeyr
- 22 Shop Picks



Cooper-Hewitt, National Design Museum

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ClearviewHwy® typeface road signs installation at Cooper-Hewitt, 2010. Donald Meeker and Christopher O'Hara, Meeker & Associates, Jeffery Smith and James Montalbano, Terminal Design Inc.

White and Light Blue Enamel Bands with Gold Lines series footed oval dish, ca. 1885–87. Ludwig Lobmeyr. Museum purchase through gift of Dale and Doug Anderson, Anonymous Donor, Arthur Liu, and Prairie Pictures Inc. and from General Acquisitions Endowment Fund, 2009-18-160

Flots de Ruban (Floating Ribbon) brooch. Van Cleef & Arpels. Paris, France, 1937. Photo: Patrick Gries

Textile sample: Dessin 1044. Sonia Delaunay. Produced by Metz & Co. France, 1930. Private collection Lobmeyr glass designs poster, 1950–55. Attributed to Oswald Haerdtl. Courtesy of J. & L. Lobmeyr

## National Design Awards at the White House



Smithsonian Secretary G. Wayne Clough, First Lady Michelle Obama, and Cooper-Hewitt Director Bill Moggridge at the National Design Awards ceremony at the White House



Cooper-Hewitt Associate Director Caroline Baumann, Cooper-Hewitt trustee Agnes Bour and Tim Gunn



Communication Design Award winner Stephe Doyle and Graydon Carter, *Vanity Fair* 



Cynthia Rowley and Cooper-Hewitt trustee



Cooper-Hewitt trustee Alice Gottesman and Bill Moggridge



Caroline Baumann, Beth McGuire, Group Manager, Community Relations, Target, Laysha Ward, President of Community Relations and Target Foundation, and Bill Moggridge

The 2010 National Design Award winners, along with Cooper-Hewitt friends and family, were thrilled to participate in the White House ceremony hosted by First Lady Michelle Obama on July 21, 2010, as she celebrated this year's honorees. The First Lady serves as the honorary patron for the National Design Awards, and the setting reinforced the tremendous amount of design talent that exists in this country. Mrs. Obama's speech emphasized the importance of design in today's world and of the value of the work the award winners do:

"You find solutions that we never thought of. You reveal and create beauty we never could have imagined or seen on our own. But each of you has also committed yourself to a fundamental principle, one best articulated, I believe, by one of today's honorees, Tom Dair, the president and co-founder of Smart Design. As he put it, 'Design is about people, not things.'"

A great conversation piece at the tables were View-Masters (designed by 2008 Lifetime Achievement winner Charles Harrison) with slides of the award winners' work. The mutual appreciation in the room among the designers was quite moving, especially when James Corner of Field Operations stopped Design Mind winner Ralph Caplan to tell him that his books had had a huge impact on his work.

The Awards program was launched at the White House in 2000 as an official project of the White House Millennium Council, and the annual National Design Awards celebrate design in various disciplines as a vital humanistic tool in shaping the world. The awards are Cooper-Hewitt's most visible education program and always include a variety of special events, panel discussions, and workshops.

The awards recognize extraordinary contributions to design in ten categories: Lifetime Achievement, Design Mind, Corporate & Institutional Achievement, and Architecture, Communication, Fashion, Interaction, Interior, Landscape, and Product Design. The award recipients will be honored at a gala dinner on October 14, 2010, in New York.



"All of you have spent your lives pushing boundaries . . . refusing to be confined by the world as it is, but instead having the courage, even the audacity, to pursue your vision of the world as it can and as it should be."

—First Lady Michelle Obama

# TEENS DESIGNERAIR

### in Washington, D.C.

"There was no magic sauce to become a designer," explained Tim Gunn. "It requires hard work and experience." Four hundred high-school students from the Washington, D.C. area had the opportunity to find out just how much work it takes directly from the winners, finalists, and jurors of this year's National Design Awards.

During the morning of the National Design Awards ceremony at the White House on July 21, 2010, the students convened for Cooper-Hewitt's Teen Design Fair, made possible by the generous sponsorship of Target, and hosted for the first time in our nation's capital. Filling the Grand Salon of the Smithsonian American Art Museum's Renwick Gallery, the students met one-on-one with designers from a variety of fields, such as architecture, fashion, graphic, industrial, and multimedia design. To close the morning, Tim Gunn, Chief Creative Officer at Liz Claiborne Inc. and co-host of Lifetime's *Project Runway* program, delivered an inspiring keynote address, followed by a Q&A discussion with Cooper-Hewitt Education Director Caroline Payson.

Over forty designers—including NDA juror Jenna Lyons of J.Crew, Communication Design Award winner Stephen Doyle, and Interior Design Award winner William Sofield—shared with students their own experiences of design schools and professional life, illustrating their stories with images, catalogues, product samples, and even architectural models. Students brought their own sketches, laptops, and, in one case, a completed dress for the designers to critique. Many teens attended the fair because of their interest in design as a profession, others because of their appreciation and admiration of the design world. Regardless of why they came, the students were enthralled throughout the morning, as were

the designers by the passion and determination they saw in the students.

During his closing remarks, Gunn talked about how it had taken him time to find his design path and emphasized the impact of design on all professions and everyday life. He advised the students to take responsibility for their dreams: "Whatever you do, do it 150%."

Although she did not attend the event, First Lady Michelle Obama was impressed by the Teen Design Fair. In her remarks at the White House luncheon, she thanked the designers for their participation. "You guys did something amazing. You really raised the bar," she said. "We know the impact that experiences like this can have on the life of our young people—giving them role models for success and exposing them to new possibilities, helping give them direction and shape their dreams.

"But we also know that far too few young people in this country have access to programs and opportunities like the one we did today. Even for those who live just minutes from our great museums and cultural centers, many feel like these resources are far beyond their reach."

The Teen Design Fair has been held annually in New York City since 2007. It began as part of Cooper-Hewitt's National Design Week, an initiative held each fall beginning in 2006 to promote a better understanding of the role design plays in all aspects of daily life. This year's National Design Week will be held from October 9 to October 17. In addition to hosting a second Teen Design Fair in New York City during the week, the Museum will also offer free admission to all visitors and provide a range of programs and online resources celebrating design.

- 1. A student shows Tim Gunn a dress she designed.
- 2. Deputy White House Social Secretary Ebs Burnough addresses students.
- 3. NDA juror Peter Hudson of Nike Inc. with a student
- 4. Eric Lynn of Trek Bicycle Corporation, recipient of the 2009 People's Design Award, with a student
- 5. NDA juror Jenna Lyons of J.Crew with students
- 6. Smithsonian's Director of Education Claudine Brown addresses students.
- 7. Beth McGuire, Group Manager, Community Relations, Target, Laysha Ward, President of Community Relations and Target Foundation, and Tim Gunn
- 8. Architecture Design Award finalist Bryan Bell of Design Corps with a student.
- 9. Communication Design Award finalist John Jay with students.
- 10. A student poses a question during the Q&A discussion.
- $11.\ \mbox{Tim}$  Gunn talks with an aspiring designer.



### Are Vertical Farms the Future?

Dickson Despommier, Ph.D.



Climate change is the driving force in evolution, which selects new life forms pre-adapted to changes in the environment. But the rate of change the world's climate is now subjected to has been in fast-forward mode for the last one hundred years. The accelerated rate of warming coincides with the advent of the Industrial Revolution and the widespread use of fossil fuels. Over the last quarter century, the world has witnessed a rapid decline in biodiversity in most terrestrial ecosystems, and the total number of species on the planet will be reduced even further as things heat up over the next fifty years. That we are the root cause of these unwanted changes is now obvious. As Pogo, that well-known comic-strip philosopher, once sagely observed: "We have met the enemy and they is us."

Health issues, quality of life, and even where we will live as sea levels rise over the next one hundred years are problems that we must face immediately if we are to survive as a species. Do we simply sit there on the tracks as the runaway climate train approaches? Creating a problem is one thing, but realizing the causes of the problem, then taking radical measures to correct it, is yet another. One solution to slowing down climate change is to grow most of our food crops indoors and give a significant portion of farmland back to nature. This would allow the land to repair itself. Many examples supporting this "no-cost" mechanism for restoration of the environment already exist. For instance, in 1620, an estimated 90-95% of the Northeast was covered with hardwood forest; by the mid-1800s, 54% of New York and 67% of southern New England was either in pasture or plowed for food production. But agriculture in the

region largely failed due to the poor soil types and the long, cold winters. Nature eventually reclaimed the abandoned farmland, and today, forests dominate New England and New York State once again, occupying 72% of the landscape.¹ The same has happened in the Korean peninsula's demilitarized zone, or DMZ. Created in 1953, this approximately 400-square-mile strip of land, established to act as a buffer between North and South Korea, has since become on its own a habitat for endangered animals and plants. There are numerous other cases that provide strong evidence for a "leave it alone" policy for environmental repair.

But we still need to feed some 6.8 billion people, with an additional three billion on the way by 2050, according to the United Nations. How can this be achieved without further encroaching into natural systems? The present iteration of indoor farming is not without its problems: They tend to be too far away from populated centers. Crops have to be harvested before ripeness and shipped many miles to reach the tables of urban dwellers, and consequently there is produce spoilage and the attendant loss of sales.

A new way of farming must replace what currently exists. Controlled environment agriculture (CEA) is one promising approach to solving this problem. It already exists in many places throughout the world, and has resulted in a string of commercially successful greenhouse operations, such as EuroFresh Farms in Wilcox, Arizona. Bringing food production inside the cities by stacking high-tech greenhouses on top of each other can help overcome the above challenges. "Vertical farm" is the term I came up



- 1. Harvested cornfield. © Roelof Bos/Getty Images
- 2. Hardwood forest, Great Smoky Mountains National Park. © Getty Images
- 3. Eco-Laboratory, building concept.
  Dan Albert, Myer Harrell, Brian Geller, and
  Chris Dukehart, Weber Thompson. United
  States, 2009



## The top twenty cities in the United States have an agricultural footprint roughly equivalent to the state of Montana.



- 1. Eco-Laboratory, interior
- 2. Genetically mutated frog with five legs. © HO/Reuters/Corbis
- 3. Eco-Laboratory, marketplace

with for these high-rise farms. They have many potential virtues, among them the guarantee that we will always have an abundant, robust, and safe food supply where most of us choose to live. The vertical farming concept begins with a simple idea: grow food in a climate-controlled multi-story building free of pollutants, pesticides, and seasons while producing the highest-quality produce in an urban environment. From ten-story structures to dragonfly wing-inspired behemoths that tower over Manhattan, vertical farms are but one of a host of solutions needed to address the complexities of bringing food to people.



The current exhibition at Cooper-Hewitt, National Design Triennial: Why Design Now?, features a prototype of a vertical farm, the award-winning Eco-Laboratory, a collaborative effort between myself and Weber Thompson Architects in Seattle. Our vision includes a multi-story experimental farm, an artificial wetland to remediate gray water, outdoor farm plots, and a community center. Once it is built, citizens who want to get involved in urban agriculture can come to the Eco-Laboratory and learn the ins and outs of urban-based outdoor and indoor farming, taught in hands-on applied courses featuring hydroponics, aeroponics, and aquaculture. The city of Newark, New Jersey, has expressed serious interest in seeing a prototype vertical farm built within the next year, and similar projects are underway in Chicago, Milan, Italy, and other densely populated centers throughout the world. The proposed Newark Vertical Farm represents an incorporation of integrated and overlapping sustainable design features. More than just a vertical farm, it is a research-and-development program for sustainable design in an urban context. The purpose is to provide a complex in which develop, test, and educate, with the ultimate goal of perfecting a commercially viable building type.2

How do we go about establishing a realistic, economically viable urban "ecosystem" within the techno-sphere, i.e., the built landscape? Establishing criteria for ecologically sound behavior will involve connecting disparate, cutting-edge technologies in ways yet untried. Fortunately, current methods for things such as pollution-free waste-to-energy strategies and safe gray-water reclamation are more than sufficient. So constructing a totally off-the-grid community is feasible, even though we have yet to do so. The time is right to make urban farming in tall buildings a reality. If we as a society do not choose to get out of our ecological mess, the human condition will surely further exacerbate already stressed and depleted natural systems, particularly hardwood forests. Increasing deforestation to make room for yet more farmland would permanently alter the atmosphere, causing traditional soil-based agriculture to catastrophically fail.

There are other immediate concerns linked to soil-based agriculture. Approximately 70% of the available freshwater on the planet is used for agricultural irrigation, which contaminates the water with agrochemicals (pesticides, fertilizers, and herbicides) and silt, rendering it undrink



able. Many energy experts now value water more than oil, and warn that if current trends in water use continue, it will become unavailable.

Infectious diseases account for a significant number of deaths worldwide each year. Diarrheal diseases such as salmonella, cholera, and shigella are caused by ingesting food and/or water contaminated with fecal matter. Insect pests, rodents, and a wide variety of plant-pathogenic microbes, including rice blast wheat rust, also threaten food security. Because of these interlopers, what we harvest is never equal to what we plant; and some of what we harvest spoils on the way to market. Storage bins are perfect targets for all kinds of organisms that find their way into them and reap the benefits of our hard work. Rice farming in tropical areas of the world encourages water-borne illnesses like malaria and schistosomiasis. The common practice of using human feces as fertilizer in most of Southeast Asia, South Asia, and many parts of Africa and South America facilitates the spread of other parasitic infections (referred to as geohelminths). Hookworm, Ascaris lumbricoides (giant roundworm), and Trichuris trichiura (whipworm) are among the most commonly occurring worm infections, afflicting some 2.5 billion people and causing significant loss of work and capacity. Atrazine, a widely used anti-fungal agent intended to control wheat rust, is an endocrine disrupter in amphibians, and has produced large populations of three- and five-legged frogs throughout the wheat belt of the American Midwest.

This will undoubtedly eventually affect us as well, since frogs are remarkable predators of insect pests such as mosquitoes.

Reversing the harmful effects of a failing agricultural system on natural systems increases our natural capital, but doing so will require a dramatic reduction in our agricultural footprint. While cities have small land-use footprints, the city dweller's agricultural footprint is huge. For example, New York City's eight-million-plus inhabitants require agricultural land the size of Virginia to supply it with fresh produce and meat products. The top twenty cities in the United States have an agricultural footprint roughly equivalent to the state of Montana. A radical new approach to life in the big city is what is needed—true eco-urbanism, in which food production occurs within city limits. The vertical farm will only succeed if we all cooperate. The team must include as many talented individuals in architecture, engineering, agronomy, politics, economics, psychology, and microbiology as we can muster in a common effort to relieve the land of the stress of traditional farming. If all this comes to pass, balance between us and the rest of the natural world may be achieved.

- 1. U.S. Department of Agriculture, *Northeast Forest Regeneration*Handbook (Newtown Square, PA: USDA Forest Service, July 2006): 4, 6
- 2. Weber Thompson news release, July 23, 2010.

Professor of Public Health and Microbiology at Columbia University. Author of West Nile Story and coauthor of Parasitic Diseases (5th ed.), he has also published dozens of articles and lectured widely on parasitic infections, infectious disease, and the concept of the vertical farm. His book Vertical Farm: The World Is Growing Up will be published by Thomas Dunne Books/St. Martin's Press in October 2010.

Dickson Despommier, who coined

the term "vertical farm," is Emeritus



























## SHENANDOAH MIDDLE SCHOOL MUSEUMS MAGNET SCHOOL

Maria Jimenez, Lead Teacher, Museums Magnet Program Shenandoah Middle School, Miami, FL

Walking through the hallways at Shenandoah Middle School Museums Magnet School in Miami, FL, you can tell that it is not your ordinary school. Displays of artwork by students combined with commissioned art from local artists give the impression that you might actually be in a museum. Founded in 2005, the Museums Magnet Program is designed to combine the resources and collections of local museums and cultural institutions to create innovative educational experiences across the curriculum for students, parents, and teachers. For example, students might visit the Wolfsonian-FIU Museum and learn about propaganda, use visual thinking strategies to analyze a painting or object at the Lowe Art Museum, or take a tour of Miami's historic sites and learn the importance of preservation. In collaboration with renowned experts from across the country and museum educators from partner institutions, teachers adapt traditional instructional methodology to include museum-based strategies that allow students to develop critical thinking skills based on individual experiences and interactions with object-based learning resources.

Shenandoah Middle School transformed its former industrial-education space, a woodshop, into an exhibition hall for student-created exhibits. It hosts a semiannual exhibit that invites parents and the community to view student work inspired by museum-based lessons and study trips to local museums and historic sites held throughout the year. These exhibitions foster dynamic learning environments, innovation, authentic learning, motivation, and enjoyment by all those who participate.

To enhance the professional development training of school staff, two Shenandoah teachers, Beatriz Alvarez and Teresita Herrera, participated in Cooper-Hewitt's award-winning A City of Neighborhoods educational program in San Antonio, TX. ACON allows teachers to engage in the design process through active observation, discussion, strategies for visual communication, and critique. Using the skills they learned in San Antonio, Alvarez and Herrera began using the design process in their classrooms in a variety of ways. Alvarez, who teaches language arts and creative writing, had students come up with ways to improve the use of the school's Accelerated Reader (AR) program. In groups, students began by identifying the problems associated with AR. Then, choosing one problem to focus on, they came up with possible solutions, selected what they felt was the best solution for the entire student population, and created presentations that were judged by the

administration and reading coaches. According to Alvarez, "It was intriguing to see how engaged students became once they felt they had control of changing the protocol in our school. The design process opened their eyes to the simplicity of problem-solving, which can be applied to a variety of settings."

Herrera incorporated the design process into the creation of an exhibition. "I placed my students into groups and had them evaluate the design of products or technology that they used in their everyday lives," she said. "Using the step-by-step design process, students had to brainstorm ideas on how to make the products better for use in the twenty-first century." Students were then asked to create a commercial about their new and improved model using iMovie software. Herrera added, "What I really enjoyed about this project was seeing how creative the students were, how engaged they were throughout the process, and how they came to the realization that it can be quite difficult to come up with a solution to a problem that pleases everyone."

The faculty has also incorporated other design-inspired techniques throughout the year. For example, creative-writing students created environmentally themed graphic novels that were sold during the Miami International Book Fair in November. Selected students in the Extended Foreign Language Program's Spanish class created and designed modern versions of the *Book of Hours*, a devotional illuminated manuscript from the Middle Ages. Most important, the design process is used during the semiannual exhibitions. Students and teachers must come up with exhibits that are organized, visually appealing, and fitting with the larger themes of their exhibition. As many art and music programs around the nation are being eliminated, Shenandoah Middle School is one of the few schools that enhance the educational journey of its students with exposure to museums, cultural institutions, and critical-thinking skills that many kids their age do not get to experience.

Shenandoah Middle School Museums Magnet School works in partnership with Coral Gables Museum, Dade Heritage Trust, HistoryMiami, Lowe Art Museum-University of Miami, Miami Art Museum, Vizcaya Museum and Gardens, and the Wolfsonian-FIU.









### WINNER





Rodarte, named the 2009 Womenswear Designer of the Year by the Council of Fashion Designers of America and winner of Cooper-Hewitt's 2010 National Design Award for Fashion Design, was founded in 2005 in Pasadena, California, by Kate and Laura Mulleavy. Rodarte has garnered a devoted following for its highly conceptual, meticulously crafted clothing filled with disparate references to ideas, movements, and works of art. The Mulleavys' lack of classical training allows them to abandon, contrast, or juxtapose traditional dressmaking and couture techniques in order to create their own visual language. The resulting objects are at once provocative, highly sophisticated, and beautiful.

For this issue of the National Design Journal, the Mulleavys share their thoughts on their design process.



Laura: These images are a selection of previously unpublished photographs from our fall 2010 show. The collection was made from a series of floralprinted crinkle silk chiffons, embroidered gauze, linens, and hand-woven plaids. We used aged floral prints to connote a sense of haziness; they were meant to resemble old daguerreotypes or faded, dusty wallpaper.



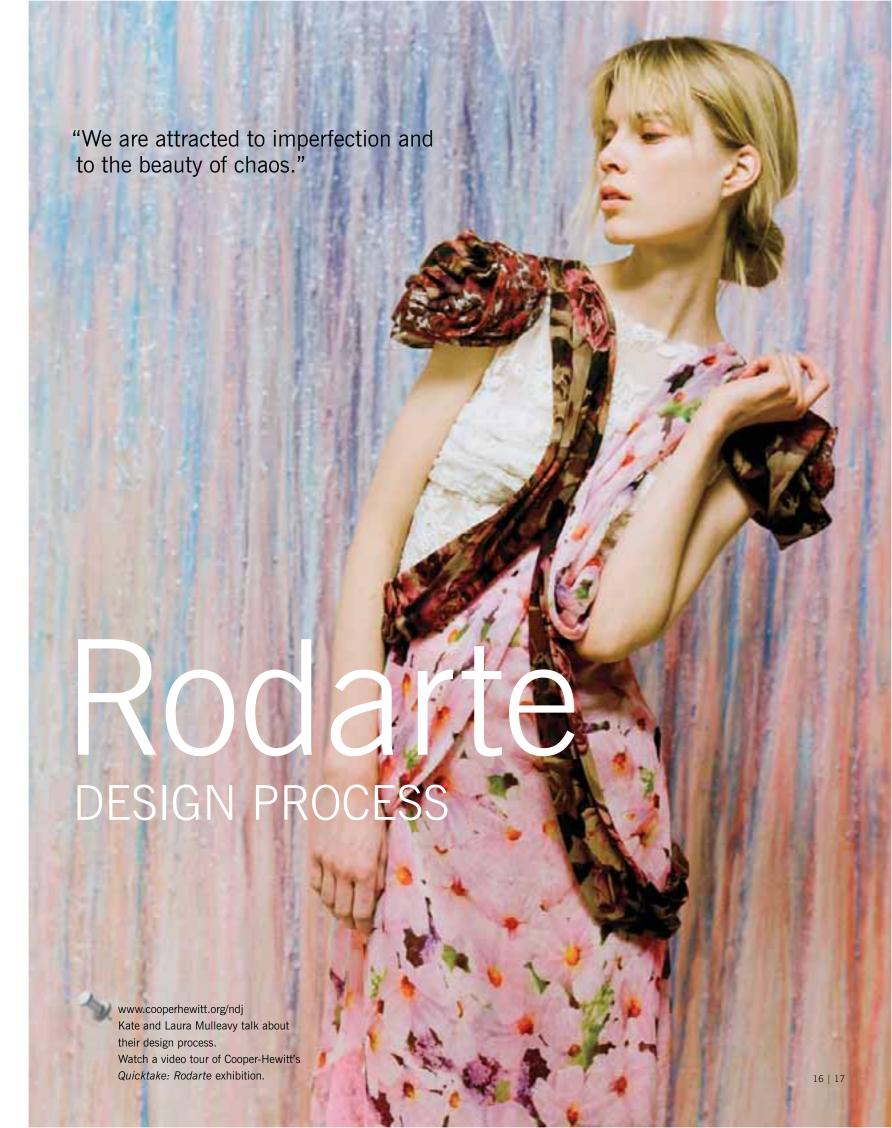
Kate: We design each collection in terms of the inspiration we are feeling at that time. In many ways, the notion of ruin or decay is a central theme in our approach to design. I can remember a huge earthquake happening one summer—I was standing in our kitchen and within a few seconds every porcelain plate, bowl, and glass cup had literally flown off the shelves and shattered on the floor around me. I remember being mesmerized by the shards. A broken plate will always be more interesting to us than a perfect, untouched object. The value is in the stain, shadow, smudge, or tear. We are attracted to imperfection and to the beauty of chaos.







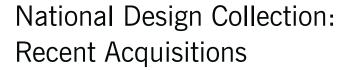






**Moss lamp.** Designed by Gaetano Pesce (Italian, b. 1939). Italy, 1999. Silicone, plastic, metal. 18 x 15 in. (45.7 x 38.1 cm). Gift of Marlene Meyerson, 2010-11-1

Italian architect and designer Gaetano
Pesce is noted for his experimental forms
in resin and other synthetics that
emphasize the creative process. The Moss
lamp exemplifies Pesce's approach to
"industrialized non-conformity," combining
fabrication techniques associated with
mass-production with contemporary
materials to produce unique objects. Here
supple silicone is hand-poured and trailed
over a mold to achieve a basic, but not
perfect, sphere.



This sampling of recent acquisitions from the past year demonstrates the wonderful generosity of people committed to strengthening Cooper-Hewitt's holdings, both historic and contemporary. Our heartfelt thanks to everyone who has given works of art or funds to help build the Museum's permanent collection.



**Boullée and Paladio chair models**. Designed by Ward Bennett (American, 1917–2003). United States, 1991. Painted wood, felt, cardboard. 16  $\frac{1}{2}$  x 10  $\frac{3}{4}$  x 10  $\frac{1}{2}$  in. (41.9 x 27.3 x 26.7 cm). Gift of David McCorkle and Ernest Hood, 2010-12-23,27

These production models were for a line named Charpentiers, after the wood artisans of the French *compagnonnage* movement. Ward Bennett traveled for three years, investigating French architecture and design and consulting with modern-day *charpentiers*, to create this line. This series exhibits the simple lines and bold geometries consistent with Bennett's works in other media, including original drawings, which are part of the same gift.



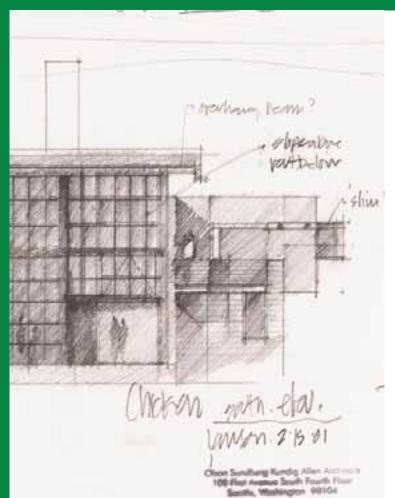
Poster: Knoll International. Massimo Vignelli (American, born Italy, 1931). United States, 1967. Offset lithograph on white wove paper.  $32 \times 47 \, 1/2$  in. (813 x 1207 mm). Gift of Lella and Massimo Vignelli, 2009-42-1

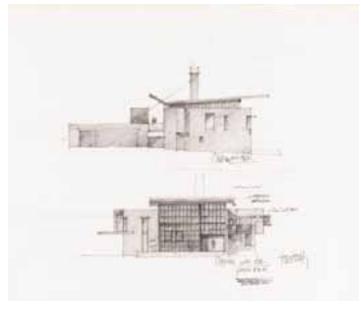
Massimo Vignelli believes that posters retain their value as a vital aspect of corporate identity amidst a proliferation of other media. His monumental design for *Knoll International*, using translucent and overlapping letters, exemplifies his "less is more" credo. Its crisp, bold graphic treatment underscores the firm's characteristics.



**Coverlet.** Pennsylvania, early 19th century. Cotton and wool double cloth. Museum purchase from General Acquisitions Endowment Fund, 2010-9-1

Woven coverlets present an appealing visual record of the patterns and designs of eighteenth- and nineteenth-century America. Coverlets are frequently double cloths, a technique that produces a woven design in reverse on the back. The process was mostly practiced by weavers from the British Isles and Germany, who continued to use traditional European patterns after settling in the United States.





**Design for the Chicken Point Cabin, Hayden Lake, Idaho: West and South Elevations.** Tom Kundig (American, b. 1954). United States, 2001. Graphite on tracing paper. 18 x 24 in. (457 x 609 mm). Gift of Tom

This award-winning design for a weekend cabin in the mountain district of Idaho reflects its natural setting. The south-facing wall of glass includes an immense hand-cranked window/door that opens the house to the lake and surrounding forest. The raw qualities of the concrete and plywood echo the textures of nature, and the tilted roof on the front and rear façades acknowledges the sky.



### Ted Muehling Views Lobmeyr

Ted Muehling Selects: Lobmeyr
Glass from the Permanent
Collection is the tenth installment
of the Nancy and Edwin Marks
Collection Gallery exhibition series
devoted to showcasing CooperHewitt's permanent collection. On
view through January 2, 2011,
the exhibition, featuring renowned
American designer Ted Muehling as
guest curator, celebrates CooperHewitt, National Design Museum's
recent acquisition of a stunning
collection of glass from J. & L.
Lobmeyr of Vienna, Austria.

Muehling discussed his personal perspective on the presentation of the objects with Chul R. Kim, Editor of the *National Design Journal*.

CK: Can you describe your first encounter with Lobmeyr glass? TM: In the late 1980s, I was in a store in New York that had a small collection of Josef Hoffmann's Patrician series. I was intrigued by the delicacy and the exquisite shape of the glasses and the decanter.

CK: You already had a fruitful relationship with Lobmeyr before you were approached to curate Cooper-Hewitt's exhibition. Can you tell us a little about your experience working with the firm?
TM: I was introduced to the Rath

family, owners of Lobmeyr, through the Nymphenburg Porcelain Manufactory. I had suggested to the people at Nymphenburg that they use Lobmeyr for their table settings, as the perfection and gracefulness of Lobmeyr's work seemed sympathetic to theirs. The two firms' relationship eventually led me to work also with Lobmeyr.

CK: You are renowned for being a very hands-on designer, who likes to manipulate materials with your own hands. Is it different for you to work

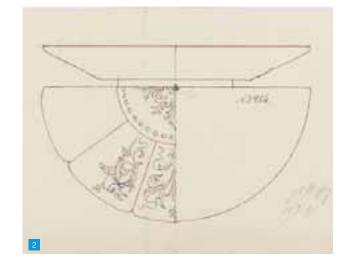
with glassmakers, who actually handle the glass?

TM: When working in glass or porcelain, I rely on the expertise of the artisans working in the factory. When collaborating with glass blowers. I try to exploit their strengths and abilities. Years ago, I did a project with Salviati in Murano, and the Italians were brilliant at layering colors and blowing free-form, so we did some colorful organic forms. When I worked with Steuben, its glass is lead crystal and can only be blown thick. Steuben also has the ability to cut and polish beautifully, and I was able to get a precision and delicacy that reflected my aesthetic. Lobmeyr is famous for its extremely thin glass and for its exquisite engraving and painting, so incorporating these qualities in my project with the company was a priority.

I like to be in the factory experimenting with the artisans.

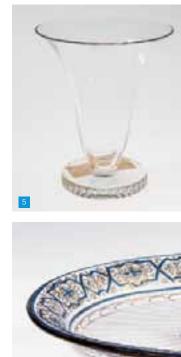
Surprising and serendipitous things can happen. I arrive with some ideas and sketches and drawings. But often I change direction watching the glass being blown. I also sketch in three dimensions in clay and bring that with me to the blowing room. Every material—whether gold, bronze, porcelain, or glass— tells you how it wants to be manipulated. I have collaborated with small manufacturers whose masterful artisans produce limited and refined work, not unlike my own studio.

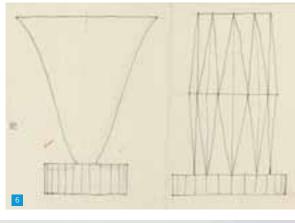
CK: The Museum's acquisition of 163 Lobmeyr pieces spans 175 years of glassmaking history. How did you set about choosing which pieces to include in the exhibition? TM: The acquisition of Lobmeyr glass was negotiated by Cooper-Hewitt's Curatorial Director, Cara McCarty, and Sarah Coffin, head of the Museum's Product Design and Decorative Arts department. Cooper-













Hewitt also had a fine collection of Oswald Haerdtl designs and drawings for Lobmeyr. My initial inclination was to show the simplest pieces from the Vienna Secession period, including Hoffmann, Haerdtl, and Adolf Loos. But a large part of the collection is from the nineteenth century, and I appreciated the opulence and the labor-intensive, decorative quality of those pieces. I wanted to show the history and development of the company as well as the technical leaps, refinements, and virtuosic perfectionism of that earlier period. Whether cutting, engraving, gilding or painting, no step was too arduous for the artisans at Lobmeyr.

CK: You've chosen rare design drawings from the Lobmeyr archives and elsewhere, including works by Ludwig Lobmeyr, Josef Hoffmann, Oswald Haerdtl, and Adolf Loos, to be displayed near the finished objects, demonstrating the glassmaking process and highlighting the collaboration between the designers and the artisans. What did you learn about that process while researching the exhibition?

TM: The archives at Lobmeyr are phenomenal, and include sketches and drawings of shapes and engravings from the 1820s to the present. I was particularly impressed by the Hoffmann and Haerdtl drawings, particularly how their graceful two-dimensional drawings were later captured in the three dimensions of glass. They reveal the refinements and compromises necessary during a collaboration. I realized that it was no different than designing today.

CK: Do you have any personal

favorites among the one hundred objects you selected? TM: There are many pieces in the show I would gladly take home. I am still in love with Hoffmann's Patrician series. The wine glass is arguably one of the most beautiful forms ever realized in glass. I also love the Haerdtl bonbonnière, a feat of glassblowing precision and delicacy made possible by the earlier Hoffmann pieces. Haerdtl has an impractical playfulness and humor that I enjoy. Hans Harald Rath's Alpha glasses are masterpieces of reductive design. With little ego, they are practical yet elegant and

sensuous to use. Maria Sybilla Merian's eighteenth-century book of insects in Suriname is a beautiful combination of art and science, observation and interpretation. Another choice would be the hummingbird brooch, an ephemeral piece of taxidermy, belying its 150 years. It is a celebration of iridescence and delicacy, an unusual iewel.

CK: What is the most important message you would like our Museum's members and visitors to take away from this exhibition?

TM: I want viewers to appreciate the earnest effort, discipline, and will required to create such consistently beautiful pieces. These works were made to express joy and celebration; they were made for pleasure.

- 1. Installation view, Ted Muehling Selects: Lobmeyr Glass from the Permanent Collection
- 2. Design drawing: *Birds of Paradise Plate*, ca. 1870. Ludwig Lobmeyr. Courtesy of J. & L. Lobmeyr
- 3. Birds of Paradise Plate, ca. 1870. Ludwig Lobmeyr. Museum purchase through gift of Dale and Doug Anderson, Anonymous Donor, Arthur Liu, and Prairie Pictures Inc. and from General Acquisitions Endowment Fund, 2009-18-161
- 4. Butterfly concave tumbler, pattern #279, 2007. Ted Muehling. Museum purchase through gift of Dale and Doug Anderson, Anonymous Donor, Arthur Liu, and Prairie Pictures Inc. and from General Acquisitions Endowment Fund, 2009-18-126
- 5. Vase, 1914. Josef Hoffmann. Museum purchase through gift of Dale and Doug Anderson, Anonymous Donor, Arthur Liu, and Prairie Pictures Inc. and from General Acquisitions Endowment Fund, 2009–18–75
- 6. Design drawing: *Vase*, 1914. Josef Hoffmann. Courtesy of J. & L. Lobmeyr
- 7. White and Light Blue Enamel Bands with Gold Lines series footed oval dish, ca. 1885–87. Ludwig Lobmeyr. Museum purchase through gift of Dale and Doug Anderson, Anonymous Donor, Arthur Liu, and Prairie Pictures Inc. and from General Acquisitions Endowment Fund, 2009-18-160



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Few products have caused as much sensation in the Shop as this set of rare Earth magnets. Spend five minutes with them. vou'll understand why. Manufactured

Notable for its curvaceous, feminine form, Monica Singer (POLKA). Manufactured by

prototype found in the Junghans archives, is rumored to have been designed by midcentury virtuoso Max Bill. Design attributed

Hayashi. Manufactured by LEC Corporation,

Mieke Gerritzen, whose work is included in Why Design Now? It consists of fifty small-scale portraits of famous people. stepped and repeated to create a relentless broadcast of familiar faces that enacts the obsessive logic of celebrity. Designed by Mieke Gerritzen. Manufactured by All Media. The Netherlands.

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Use this Japanese washi tape for gift

wrapping, decorating love letters, or

creative projects of any kind. It's as

With more Americans riding bicycles

essential piece of safety equipment. A

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7. NONTRON POCKET KNIFE WITH

Nontron knives have been forged in the

of France, for the past five hundred

opener can rival that of your wine.

DBA's 98 pen is the only 98% biode-

gradable pen in the world. It's made

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ink. Designed and manufactured by DBA,

This limited-edition scarf is designed by

years. Now the pedigree of your bottle

Manufactured by Nontron, France, 2010

village of Nontron, in the Périgord region

than ever before, a good bell is an

by Kamoi Kakoshi Japan, 2010

6. BICYCLE BELL \$20

WINE OPENER \$125

8. 98 PEN \$8 (set of 3)

United States, 2010

9. CELEBRITY SCARF \$100

versatile as it is charming. Manufactured

### 10. WHY DESIGN NOW? NATIONAL **DESIGN TRIENNIAL \$40 Hardcover**

Featuring eight essays by Cooper-Hewitt curators, 134 project profiles, and 370 full-color illustrations, Why Design Now? is an up-to-the-minute survey of what progressive designers, engineers. entrepreneurs, and citizens are doing to address social and environmental challenges and opportunities. Why Design Now? is also the most environmentally friendly book in the Museum's history. ISBN 978-0-910503-87-7, 192 pages, Distributed by DAP

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