National Design Triennial

WHY DESIGN NOW?

Smithsonian
Cooper-Hewitt, National Design Museum
Smithsonian’s Cooper-Hewitt, National Design Museum Presents
“National Design Triennial: Why Design Now?”

Cooper-Hewitt, National Design Museum will present the fourth exhibition in the National Design Triennial series in spring 2010. “Why Design Now?” will be on view from May 14, 2010, through Jan. 9, 2011, and will explore the work of designers addressing human and environmental problems across many fields of design from architecture and product design to fashion, graphics, new media and landscape design. Organized by Cooper-Hewitt curators Ellen Lupton, Cara McCarty, Matilda McQuaid and Cynthia Smith, the Triennial will be global in reach for the first time, reflecting the connectedness of design practices and the need for international cooperation to solve the world’s problems.

The exhibition title asks the question “Why Design Now?” to examine why design thinking is an essential tool for solving some of today’s most urgent problems; what draws creative thinkers, makers and problem solvers to this crucial field of discovery; and why business leaders, policy makers, consumers and citizens should embrace design values. Key developments across design disciplines will be presented through eight themes: energy, mobility, community, materials, prosperity, health, communication and simplicity.

Inaugurated in 2000, the Triennial series seeks out and presents the most innovative, forward-thinking designs at the center of contemporary culture from the previous three years. The exhibition showcases design solutions that promote environmental stewardship, social equity,
accessibility and creative capital in more than 125 projects.

“This groundbreaking exhibition gives voice to a revolution taking place within all areas of design practice, from how materials and products are planned and conceived to how goods and services are manufactured, distributed and reclaimed worldwide,” said McCarty, curatorial director of the museum. “Why Design Now?” takes a positive look at the intriguing and ambitious projects shaping this revolution.”

The curatorial team chose the designers and firms by group consensus and also collected nominations from the public through a dedicated Web site, which brought in nominations for projects such as Trove wallpapers and Etsy.

Energy

Around the world, scientists, engineers and designers are seeking ways to harness energy from the sun, wind and ocean tides and create new products and structures that use energy efficiently and self-sufficiently. Among the projects on view in this section are the Z-10 concentrated solar-panel system, which intensifies the solar energy harnessed through the use of mirrors and tracking devices; the bioWave, an enormous underwater machine that mimics the swaying motion of seaweed and is designed to capture the kinetic energy of ocean turbulence; the Power Aware cord, which provides a real-time way for consumers to visualize their energy consumption; and the experimental desert city Masdar in the United Arab Emirates, which will be the largest and most advanced carbon-neutral community.

Mobility

Allowing people to travel across town or over a continent while conserving resources requires fresh design solutions and an examination of mobility patterns and components. The exhibition will feature works such as Coulomb Technologies’ ChargePoint—a broad network of vehicle charging stations connected to the energy grid and installed in public and private lots; on-demand electric vehicles like MIT’s CityCar; urban transportation forms such as foldable bicycles and DIY bicycle trailers; and France’s recently designed AGV high-speed self-propelled train.

Community

In response to ever-expanding sprawl in the developed world and escalating urban density in developing areas, architects are creating rooftop villages, urban farms and mixed-use housing developments that employ local materials and encourage harmonious, energy-efficient living at close quarters. Highlights of the design projects on view include the H20tel in the Netherlands, the first
hydrogen-powered hotel; Oslo’s new, environmentally friendly opera house, which provides city residents access to the waterfront for the first time; vertical farming initiatives such as the Eco-Laboratory; and the Mapungubwe National Park Interpretive Center, built using local materials and labor.

**Materials**

Great efforts have been made in the past decade to address the need for more sustainable materials, which reduce the amount of energy and fossil fuels used in manufacturing. Chemists, engineers and designers are inventing everything from biodegradable, petroleum-free plastics to foam insulation that grows in the dark like a mushroom, requiring minimal energy to produce. Products are also being made with post-industrial and post-consumer recycled content, ranging from IceStone's colorful and durable pre-cast concrete slabs that contain 100 percent recycled glass to items by fashion designer Martin Margiela who repurposes used objects into couture clothing. New information systems, including Ecolect’s Product Nutrition Label, are also helping consumers find goods with a clean biological record, such as materials made from reclaimed waste, from non-toxic substances or from rapidly renewable agricultural products.

**Prosperity**

Progressive designers and entrepreneurs are building engines of prosperity that enable local communities to use their own resources to create their own wealth, as well as to participate in the global economy. Projects on view include a number of items that address basic necessities, such as a pearl millet thresher and a low-smoke stove developed for use in India; examples of slow design such as hand-made, limited-edition clothing by Alabama Chanin; and works made in collaboration with international designers and local craftspeople like the Witches’ Kitchen Collection, Design with a Conscience Series, manufactured by Artecnic.

**Health**

From creating prosthetic limbs controlled by the human mind to devising new ways to deliver health care to remote rural populations, designers are improving physical, mental and social wellness for everyone. Among the featured projects in this section are the Solvatten Safe Water System, which uses UV light to make water potable; affordable corrective eyewear that is self-adjusted by injecting various amounts of fluid into the lenses of thick glasses; a low-cost neonatal incubator made from car parts; a condom applicator; and the Zôn Hearing Aid, which is nearly invisible when placed behind the ear.
Communication

Smart phones, digital reading devices and social networks are changing the way people use and produce information. Designers are helping people understand the world’s problems by visualizing complex data and by delivering urgent messages about safety, equality and the environment. Works on view include industrial designer David Chavez’s prototype for a Braille wristwatch; One Laptop per Child’s XOXO laptop, designed by Yves Béhar, which is targeted specifically for the developed world and can be held flat, angled or like a book; Amazon’s Kindle, which offers a new way to experience books; Etsy, a global online marketplace for craftspeople, artists and designers; and the Etón FR 500 radio, an emergency radio charged via hand crank or solar panel, which works when or where the grid fails to function.

Simplicity

As designers strive to simplify production processes and consume fewer materials in smaller amounts, the quest for simplicity is shaping design’s economic and ethical values. On view will be Shigeru Ban’s 10-Unit system, which employs a single L-shaped component that can be used to construct a table, chair and bench; Karin Eriksson’s Gripp glasses, which help people comfortably grasp the vessels and hold them steady; the Return to Sender artisan, eco-casket; affordable products by MUJI; and the adjustable height AlphaBetter student desk, which allows students to sit or stand while working.

“Why Design Now?” will be accompanied by interpretive tools that extend the exhibition beyond the museum galleries. Developed in collaboration with the museum’s curators and educators, iPod touches will supplement the visitor experience with one-on-one interviews and behind-the-scenes footage, and will be available for use free of charge.

The exhibition was designed by Tsang Seymour Design. It features clean modular platforms constructed of eco-friendly, recyclable materials with natural finishes. Explanatory object labels, wall text and graphic panels will be presented on organic and eco-effective materials.

A fully illustrated catalog of approximately 200 pages, featuring 180 color illustrations, will accompany the exhibition. The exhibition catalog was designed by Michael Bierut, a partner at the New York design firm Pentagram, a 2008 Design Mind honoree of Cooper-Hewitt’s National Design Awards and designer of the Green Patriot Poster project, which is featured in the exhibition.
“National Design Triennial: Why Design Now?” is sponsored by GE.

Generous support is provided by Agnes Bourne, 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.

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About Cooper-Hewitt, National Design Museum, Smithsonian Institution

Cooper-Hewitt, National Design Museum is the only museum in the nation devoted exclusively to historic and contemporary design. Founded in 1897 by Amy, Eleanor, and Sarah Hewitt—granddaughters of industrialist Peter Cooper—as part of the Cooper Union for the Advancement of Science and Art, the museum has been a branch of the Smithsonian since 1967. The museum presents compelling perspectives on the impact of design on daily life through active educational programs, exhibitions and publications.

The museum is located at 2 East 91st Street at Fifth Avenue in New York City. Hours are Monday through Friday, 10 a.m. to 5 p.m.; Saturday, 10 a.m. to 6 p.m.; and Sunday, 11 a.m. to 6 p.m. The museum is closed on Thanksgiving Day, Christmas Day and New Year’s Day. Public transit routes include the Lexington Avenue 4, 5 and 6 subways (86th or 96th Street stations) and the Fifth and Madison Avenue buses. General admission, $15; senior citizens and students ages 12 and older, $10. Cooper-Hewitt and Smithsonian members and children younger than age 12 are admitted free. For further information, please call (212) 849-8400 or visit http://www.cooperhewitt.org. The museum is fully accessible.

About GE

GE is a diversified global infrastructure, finance and media company that is built to meet essential world needs. From energy, water, transportation and health to access to money and information, GE serves customers in more than 100 countries and employs more than 300,000 people worldwide.

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Featured Projects

Community

- **Carabanchel Social Housing.** Carabanchel, Spain. Farshid Moussavi and Alejandro Zaera-Polo, Foreign Office Architects. Spain.
- **Eco-Laboratory.** Dan Albert, Myer Harrell, Brian Geller and Chris Dukehart, Weber Thompson. U.S.
- **H20tel.** Thomas Rau, RAU. The Netherlands.
- **Lobolly House.** Taylors Island, Maryland. Stephen Kieran and James Timberlake, KieranTimberlake. U.S.
- **New Carver Apartments.** Los Angeles, California. Michael Maltzan Architecture for The Skid Row Housing Trust. U.S.
- **Vault201.** John Ochsendorf, Philippe Block, Lara Davis, Matthew De Jong, Florence Guiraud Doughty, Scott Ferebee, Emily Lo, Mallory Taub, Cynthia Ting and Robin Willis, MIT Masonry Research Group. U.S.
- **TheVerticalVillage.** Taipei, Taiwan. Winy Maas, Jacob van Rijs and Nathalie de Vries, MVRDV. The Netherlands.

Legend:

Project Name. Location. Designer. Country.

**Mobility**

- **AGV (Automotrice à Grande Vitesse) [High Speed Self-propelled Train].** Alstom Design and Styling Studio, Alstom Transport. France.
- **ChargePoint™ Networked Charging Station.** U.S. and Denmark. Peter H. Muller, Interform for Coulomb Technologies, Inc. U.S.
- **E/S Orcelle Cargo Carrier.** No Picnic AB for Wallenius Wilhelmsen Logistics. Sweden and Norway.
- **IDEA Plug-in Hybrid Electric Fleet Vehicle.** David Busch and Rollin Nothwehr, Bright Automotive, Inc. U.S.
- **IF Mode Folding Bicycle.** Mark Sanders, MAS Design and Ryan Carroll and Michael Lin, Studio Design by Pacific Cycles. United Kingdom and Taiwan.
- **MIT CityCar.** Smart Cities, MIT Media Laboratory, with MIT Department of Architecture and MIT Department of Urban Studies & Planning. U.S.
- **NYC Hoop Rack.** Ian Mahaffy and Maarten de Greeve for New York City Department of Transportation. Denmark and U.S.
- **Samarth Bicycle Trailer.** India. Radhika Bhalla. U.S.

**Energy**

- **bioWAVE Ocean-wave Energy System.** Timothy Finnigan, BioPower Systems Pty Ltd. Australia.
- **California Academy of Sciences.** San Francisco, California. Renzo Piano Building Workshop, with Stantec Architecture and sustainability engineering by Arup. Italy and U.S.
- **Energy Aware Clock.** Loove Broms and Karin Ehrnberger, Interactive Institute AB. Sweden.
- **Hope Solar Tower.** EnviroMission Ltd. Australia.
- **HydroNet: San Francisco 2108.** Lisa Iwamoto and Craig Scott, IwamotoScott. U.S.
- **Invisible Streetlight.** Jongoh Lee. South Korea.
- **M10 Kite-power System.** Damon Vander Lind and Becker Van Niekerk, Makani Power Inc. U.S.
- **MetaboliCity.** Rachel Wingfield and Mathias Gmachl, Studio Loop.pH, with solar cells by RISØ DTU, the National Laboratory for Sustainable Energy. United Kingdom and Denmark.
- **Ninety Light.** Shawn Littrell, Gensler, manufactured by LUXO. U.S. and Norway.
---ENERGY CONTINUED---

- **Power Aware Cord.** Magnus Gryllenswärd and Anton Gustafsson, Interactive Institute AB. Sweden.
- **Soil Lamp.** Marieke Staps. The Netherlands.
- **Solar Lilies.** Peter Richardson. ZM Architecture. United Kingdom.
- **Solé Power Tiles.** Manufactured by SRS Energy. U.S.
- **SolPix.** Simone Giostra and Partners, with Arup, manufactured by Zahner and Scheuten Solar. U.S., Germany and China.
- **SunShade.** Lianne van Genugten. The Netherlands.
- **Z-10 Concentrated Solar-power System.** Ezri Tarazi and Ori Levin, Tarazi Studio for ZenithSolar. Israel.

**Materials**

- **AgriPlast.** Michael Gass, Biowert Industrie GmbH. Germany.
- **AgroResin.** Grenidea Technologies Pte Ltd. Singapore.
- **Alar 002, Azha Custom and Indi 002 Wallpapers.** Jee Levin and Randall Buck, Trove. U.S.
- **Alpaca Velvet, Ditto, Gather 006 and Horsehair Striae 003 Textiles.** Maharam. U.S.
- **Bananaplac.** Bernardo Ferraccioli, Claudio Ferreira, Pedro Themoteo, Bruno Temer, Thiago Maia, Fibra Design Sustentável. Brazil.
- **Bio-Glass, Bio-Luminum™ and Eco-Cem.** Coverings ETC. Italy and U.S.
- **Bioware Packaging.** Ekapoj Phanunan, House of Pack Corp., Ltd. Thailand.
- **Carbon-negative Concrete.** Brent Constantz, Calera Corporation. U.S.
- **Cobi Chair.** Tom Lloyd and Luke Pearson, PearsonLloyd and Bruce Smith, Steelcase Design Studio. U.S.
- **Contour Crafting.** Behrokh Khoshnevis, Center for Rapid Automated Fabrication Technologies (CRAFT). U.S.
- **Dye Solar-cell PV Window.** Marc Thomas and Sylvia Tulloch, Dyesol, Inc. U.S.
- **FIN Spring/Summer 2010 Collection.** Per Sivertsen, FIN Fashion A/S. Norway.
- **FLAKE and Veil Curtains.** Mia Cullin and Ritva Puotila, WOODNOTES OY. Sweden and Finland.
- **Fuzun and rubbRe.** Dianne Denommee, Aline Denommee and Robin Gilson, Vulcana LLC. U.S.
- **GreenBox™ and Product Nutrition Label.** Joe Gebbia, Elizabeth Redmond and Matt Grigsby, Ecollect, Inc. and Joep Meijer, theRightenvironment Ltd. U.S.
- **Greensulate.** Eben Bayer, Gavin McIntyre and Edward Browka, Ecovative Design LLC. U.S.
- **IceStone Refined Collection.** IceStone, LLC. U.S.
- **Kraftplex.** Well Ausstellungssystem GmbH. Germany.
- **Lin 94 Chair.** François Azambourg, France.
- **Maison Martin Margiela Artisanal Line.** Maison Martin Margiela. France.
- **PLMS6040 Compostable Polymer.** Kareline Oy, Ltd. Finland.
- **ProSolve 370e.** Allison Dring and Daniel Schwaag, Elegant Embellishments. Germany.
- **Tryk Sustainable Sampling Tool.** Tricycle Inc. U.S.
- **VerTerra Tableware.** Michael Dwork, VerTerra, Ltd. U.S.

**Prosperity**

- **Alabama Chanin 2009 and 2010 Collections.** Natalie Chanin, Alabama Chanin. U.S.
- **Heath Ceramics Tableware.** Catherine Bailey and Robin Petravic with Christina Zamora, Heath Ceramics. U.S.
- **Improved Clay Stove.** Practical Action Sudan, manufactured by Sudanese women networks. Sudan.
- **Island Seat, Spiral Islands Collection.** David Trubridge for Essence. New Zealand.
---PROSPERITY CONTINUED

- **Mahangu [Pearl Millet] Thresher.** Mali. Initiated by Aaron Wieler, developed by Donna Cohn, with the MIT International Design Development Summit, Francisco Rodriguez, George Yaw Obeng, Brian Rasnow, Thalia Konaris and Michelle Marincel. U.S. and Ghana.

- **Nokia Open Studios.** Younghee Jung, Jan Chipchase, Indri Tulusan, Fumiko Ichikawa and Tiel Attar, Nokia Corporation. Finland, Brazil, Ghana and India.

- **Painted Series.** Saskia van Drimmelen, Désirée Hammen and Margreet Sweerts, Painted, with Velichka Georgieva, Magdalina Toneva and Rumjana Rakovska. The Netherlands and Bulgaria.

- **Sampoorna Chulha Stove, Philanthropy by Design Initiative.** India. Unmesh Kulkarni, Praveen Mareguddi, Simona Rocchi and Bas Griffioen, Philips Design. The Netherlands.

- **Viet Village Urban Farm.** New Orleans, Louisiana. Elizabeth Mossop and Wes Michaels, Spackman Mossop Michaels and Dan Etheridge, Tulane University. U.S.

- **Witches’ Kitchen Collection, Design with a Conscience Series.** Tord Boontje, Studio Tord Boontje, for Artecmedia. France, Brazil, Colombia and Guatemala.

**Health**


- **Bodyweight Support Assist.** Fundamental Technology Research Center, Honda R&D Co., Ltd. Japan.

- **Car-parts Incubator.** Timothy Prestero, Design that Matters, Inc. U.S. and Nepal.

- **Eco-Machine at the Omega Center for Sustainable Living.** Rhinebeck, New York. John Todd Ecological Design, with Brad Clark, Laura Lesniewski and Steve McDowell, BNIM. U.S.

- **Ergon GR2 Bike Grips, NioxMino Asthma Monitor and Spot Guide Cane.** Ergonomidesign, manufactured by Ergon, for RTI Sports GmbH and Aerocrine AB. Sweden and Germany.

- **Get-Together.** Hilary Cottam, Hugo Manassei and Michael Tolhurst, Participle Ltd. United Kingdom.

- **HealthMap.** Clark C. Freifeld and John S. Brownstein, Children’s Hospital Boston at the Harvard-MIT Division of Health Sciences and Technology, MIT Media Laboratory and Harvard Medical School. U.S.


- **Orio Medical Cord Organizer.** Martin O. Fougner and Jørgen Leirdal, Hugo Industridesign AS, manufactured by Norplasta for INORA AS. Norway.

- **Modular Prosthetic-limb System.** Stuart D. Harshbarger, Johns Hopkins University Applied Physics Laboratory and Orthocare Innovations, Thomas Van Doren, HDT Engineering Services and Richard Weir, Rehabilitation Institute of Chicago. U.S.

- **Ripple Effect.** IDEO and Acumen Fund. U.S. and India.

- **SOLVATTEN Solar Safe-water Purifier.** Petra Wadström, Solvatten AB, manufactured by Mälarplast AB. Sweden.

- **Zön Hearing Aid.** Stuart Karten, Eric Olson, Paul Kirley and Dennis Schroeder, Stuart Karten Design for Starkey Laboratories, Inc. U.S.

**Communication**

- **All Media Wallpaper and Paintings.** Mieke Gerritzen. The Netherlands.

- **Artificial Biological Clock.** Revital Cohen. United Kingdom.

- **The Bleached Reef.** Margaret Wertheim, The Institute for Figuring and Christine Wertheim. U.S.

- **ClearviewHwy® Typeface.** Donald Meeker and Christopher O’Hara, Meeker & Associates and James Montalbano, Terminal Design, Inc. U.S.


- **Etsy.** Founded by Robert Kalin, Chris Maguire and Haim Schoppik. U.S.
COMMUNICATION CONTINUED

• **Furumai.** Kotaro Watanabe, Kinya Tagawa and Motohide Hatanaka, Takram Design Engineering and Taku Satoh, Taku Satoh Design Office. Japan.

• **The Girl Effect Campaign.** Wieden + Kennedy, animation design and direction by Matt Smithson, and production by Curious Pictures and Joint Editorial for Nike Foundation. U.S.

• **GOOD Magazine.** Scott Stowell, Open. U.S.

• **Green Map System.** Wendy E. Brawer, Green Map System. Designed globally.

• **Green Patriot Posters.** Michael Bierut, Pentagram, with Ed Morris and Dmitri Siegel, The Canary Project. U.S.

• **Haptica Braille Timepiece.** David Chavez. U.S.

• **iPhone.** Apple Industrial Design Team. U.S.

• **Kindle Wireless Reading Device.** Amazon Kindle Team, a division of Amazon.com. U.S.

• **L.A. Earthquake: Get Ready Campaign.** Designmatters, Art Center College of Design. U.S.

• **Learning Landscape.** Uganda, U.S. and Dominican Republic. Emily Pilloton, Heleen De Goey, Dan Grossman, Kristina Drury, Neha Thatte, Matthew Miller and Ilona de Jongh, Project H Design. U.S.


• **OLPC (One Laptop per Child) XOXO Laptop.** Yves Béhar and Bret Recor, fuseproject; interaction design by Lisa Strausfield, Pentagram; concept by Nicholas Negroponte, OLPC. U.S.

• **Polski Theater Banners.** Joanna Górska and Jerzy Skakun, HOMEWORK. Poland.

• **Posterwall for the Twenty-First Century.** Jeroen Barendse, Thomas Castro, Dimitri Nieuwenhuizen and Daniel Powers, LUST. The Netherlands.


• **The Story of Stuff.** Free Range Studios, authored by Annie Leonard. U.S.

• **Touch Magazine 2/3.** Sean Donahue, ResearchCenteredDesign. U.S.

• **Touch Sight Camera.** Samsung Design China, a design center of Samsung Electronics. China.

• **Twitter.** Founded by Jack Dorsey, Evan Williams and Biz Stone, designed by Douglas Bowman. U.S.

• **Vendor Power!** Candy Chang, Red Antenna for Center for Urban Pedagogy. U.S.

• **Worldmapper.** Graham Allsopp, Anna Barford, Danny Dorfman, John Pritchard and Ben Wheeler, SASI Group, University of Sheffield and Mark Newman, University of Michigan. United Kingdom and U.S.

**Simplicity**

• **10-Unit System.** Shigeru Ban, Shigeru Ban Architects, manufactured by ARTEK. Japan and Finland.

• **AlphaBetter Student Desk.** Tim Skiba, Sunway, Inc., concept by Abby Brown, manufactured by Safco Products Company. U.S.

• **Angle Chopsticks, CarryOn Collection and InOut Pitcher.** Aurélien Barbry, Jakob Wagner and Todd Bracher, manufactured by Mater. France, Denmark, U.S., China and Vietnam.

• **Ash Wood Bed, Cotton Bedding and Torch Light.** MUJI design team, Ryohin Keikaku Co., Ltd. Japan.

• **Book LED Floor Lamp.** Goodmorning Technology, manufactured by RISØ DTU, the National Laboratory for Sustainable Energy. Denmark.

• **Cabbage Chair.** Oki Sato, Nendo. Japan.

• **Clamp-a-Leg, Jar Tops and Nomad Table.** Jorre van Ast. The Netherlands.

• **DBA Heater and Humidifier.** Leon Ransmeier, DBA. U.S.


• **Isabella Stool, Free Range Furniture Collection.** Ryan Frank, Planet G Ltd., manufactured by Pli design. United Kingdom.

• **Medusa Lamp.** Mikko Paakkanen, studio PAAKKANEN, manufactured by SAAS Instruments. Finland.

• **Multiple Chairs #17 and #23, Multiple Family Series.** Jetske de Groot. The Netherlands.

• **Pluralis Chair.** Cecilie Manz, manufactured by Moomint. Denmark.

• **Return To Sender Artisan Eco-Casket.** Greg Holdsworth, Return To Sender Eco-Caskets. New Zealand.

• **t.e. 83 Hanging Lamp.** Christien Meindertsma, manufactured by Ropery Steenbergen for the t.e. collection. The Netherlands.

• **WASARA Tableware.** Shinichiro Ogata, WASARA Co., Ltd. Japan.


Car-parts incubator, prototype. Design that Matters, Inc. United States and Nepal, 2008–present. Rendering: Design that Matters


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