

QUARTERLY OF THE INDUSTRIAL DESIGNERS SOCIETY OF AMERICA **SUMMER 2012**

INNOVATION

Wounded Warriors + Design

BIOMIMICRY ■ SHOWCASE ■ OBSOLESCENCE





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Concept by Radius Senior Designer Mario Gonzalez

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SUMMER 2012

INNOVATION[®]



IDSA[®]

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WOUNDED WARRIORS

- 24 Doing It by Design**
by Patricia Moore, FIDSA
Guest Editor
- 26 Redesigning the Great American Pastime: Play Ball!** by Jason Billingsley and David Van Sleet
- 28 A Rehabilitation Center Design Project for Wounded Warriors: *Daring to Care***
by Vibhavari Jani
- 32 Support from a High-Tech Lab—or the House Next Door: *From a Myoelectric Mouse to a Hammer and Nail*** by Stephen Karl and Julie Fisher
- 35 Arming Our Veterans**
by Dean Kamen
- 38 The Wounded Warrior Homes: *An Agile Discourse Between Dualities***
by Altay Sendil and Hilary Hoerber
- 42 An In-Depth Look**
by Michael Graves & Associates
- 45 An Inclusive Consumer Research Perspective: *Coming Home***
by Brian McMahon and Joyce Chung

- 48 Extreme Learning for Everyday Design: *Lessons from the One-Handed World***
by Kelley Styring

FEATURES

- 13 Design Obsolescence: *A Thing of the Past*** by Tony Kawanari, IDSA and Gabriel Botkins
- 16 Biomimicry & Design Education: *Shaking Hands with a Sloth*** by Adelheid Fischer
- 22 Consumer Collaboration: *Setting Off an IdeaStorm™***
by Gary Grossman, IDSA

IN EVERY ISSUE

- 4 From the Executive Editor**
by Mark Dziarsk, FIDSA
- 6 Business Concepts**
by Ravi Sawhney, FIDSA
- 8 Letters to the Editor**
- 10 Design Defined**
by Scott Summit
- 12 Book Review**
by Scott Stropkay, IDSA
- 53 Showcase**
- 64 Signposts**
by Alistair Hamilton, IDSA

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“The Wounded Warrior Complex helps injured combat veterans to find independence and new hope.”

Wounded Warrior Complex, Camp Pendleton, CA (left) designed by Parron Hall Office Interiors for US Marine Corps; www.dirtt.net



Cover photo: Marine Captain and Iraqi Vet Jonathan Kuniholm wearing a prototype of a neurally controlled prosthetic arm developed by the DARPA Revolutionizing Prosthetics project. Mike McGregor / Contour by Getty Images

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7 Conwed
1 LaFrance Corp.
c4 Lunar
8 MIT Press
c2 Radius PD
9 Stratyasys

Far Left: More Showcase submissions on page 53.



FROM THE EDITOR

FINDING INSPIRED ANSWERS

Anyone who has walked into my office in the last 20 years has been greeted by the same sight. Those who are unfamiliar with design usually ask, “What’s that?” It appears to be some kind of fabulous wooden sculpture. Those steeped in design history immediately recognize it as a classic piece by Charles and Ray Eames, the same piece I recently saw hanging, for example, in the Museum of Modern

Art in New York. It is a wooden splint for repairing a damaged leg but not just any wooden splint. This one changed the face of modern design, the future of furniture and the career of the 20th century’s most respected design team.

The iconic Eames Leg Splint was designed in 1942 for use by the US Navy in World War II. The US Navy called upon Charles and Ray Eames to create a lightweight, inexpensive leg splint. The metal splints of that period weren’t secure enough to hold the leg still, causing unnecessary death from gangrene, shock, blood loss and so on. The military needed a lightweight splint for wounded soldiers that could get them out of the field more securely. The resulting design is a highly sculptural yet functional device that can be mass produced, is modular and nests so that it can be conveniently and inexpensively transported. The molded splint is formed with contours that fit to and immobilize a leg at the same time providing perfectly placed openings for fabric restraints.

Although the splint was eventually manufactured by Evans Products’ Molded Plywood Division (over 150,000 were made), it was access to military technology and manufacturing facilities that allowed the Eames’ to perfect their bent plywood technique, which they had been working on for several years. In its three-dimensional, biomorphic form, the leg splint paved the way for the Eames’ subsequent iconic and highly influential plywood furniture designs, includ-



ing the LCD chair and the Eames lounge, among many others.

The Leg Splint is a truly beautiful object and an inspired answer to a problem that had none. This was really where the Eames legend began. This example of a seemingly specialized design problem—a practical aid for disabled soldiers—inspired a whole aesthetic in modernist furnishings, the chairs that launched a thousand imitators and

a new ethos of simple, organic lines in household objects. The story of the Leg Splint suggests that disability concerns may be an overlooked area of aesthetic inspiration, able to point to creative breakthroughs that have wide relevance and impact.

I found it at an old antique shop in Milwaukee’s Third Coast warehouse district, when you could find deals before the area was redeveloped to its gentrified state. Actually, to be accurate, I found about seven or eight of them, all in the original paper wrappers. So I bought them all for around \$20 each. I unwrapped one to put out, as it were, and it has served as an inspiration ever since. Little did I know that one day we would dedicate an issue of *Innovation* to the very kind of exploration in the marriage of technology, material and design seen in the Eames splint—an effort to change the world for the better by increasing the quality of living for a few. We are hoping this issue of *Innovation* serves the same mission.

Who better than Pattie Moore, FIDSA to guest edit? Initially recognized in the design world for her pioneering on behalf of the needs of elderly people, Pattie has amazing talent and a huge heart and has worked tirelessly in the service of universal design. Her efforts on behalf of wounded warriors is further testament to the desire and drive evident in the entirety of her career. We thank her for her leadership of this inspired issue.

—Mark Dziarski, FIDSA, *Innovation* Executive Editor
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Michael Lozano

DOING IT BY DESIGN



The Independence Way mini-mart provides for clerk and shopper skill building.

I am a conflicted pacifist. My grandfather fought in World War I. My father fought in World War II. I protested the US involvement in Vietnam as a freshman at RIT. I've never embraced the concept of war to bring peace, and I doubt I ever will. But I do appreciate the need to defend from attack and to protect from aggression. And while I accept that war is a reality with which we have lived for centuries, I dream of a day when all peoples will live in peace.





By Patricia Moore, FIDSA

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Patricia Moore, president of MooreDesign Associates, is an internationally renowned gerontologist and designer, serving as a leading authority on consumer lifespan behaviors and requirements. Among her many accolades, she has received an honorary doctorate from Syracuse University for serving as a “guiding force for a more humane and livable world, blazing a path for inclusiveness as a true leader in the movement of universal design.”

As pained as I am by hate and hurt, I am passionate about the design and delivery of comfort and care for the injuries of battle. For the past 20 years, I have been involved in the creation and design of more than 300 physical medicine and rehabilitation (PM+R) environments throughout North America, Europe and Asia. Working with the complex complement of physicians and therapists who have dedicated their talents and skills to mending the affects of accidents, birth anomalies and illnesses has been the most significant honor of my career.

In 2006, I was presented with the challenge of developing a PM+R environment for the flagship Veterans Administration Medical Center (VAMC) in Washington, DC. This project touched my heart and stirred my spirit more than any challenge I have experienced. Watching bodies ravaged by war fighting to regain abilities lost to brutality was particularly difficult for me. Yet I was inspired witnessing the men and women who have bravely served our nation working to develop compensatory skills.

This first VAMC Independence Way celebrated its opening in the fall of 2010. Woven within the traditional rehab equipment and gyms, this blend of home and city includes a simulated ATM, house, mini-mart and a variety of walkways. When the first veterans entered this microcosm community, full of real-life activities, their exclamations were a moving testament to design’s power to redefine lives.

A young woman with a head injury initially approached the mini-mart with apprehension. She cautiously retrieved a shopping basket and with the prompting of her occupational therapist read her list aloud. “Apples,” she whispered hesitantly. “I need apples.” Locating the (artificial) produce, she carefully placed individual apples on a scale. Together, the



Mobility training skills are gained by interacting with various walkways such as in this simulated home.

women calculated the weight and price. When the therapist smiled the confirmation of a successful result, the young soldier squealed with delight. “I did it! I did it! What should I do next?” It was extremely difficult not to celebrate her accomplishment with tears.

From our first steps to our last, we are surrounded by the efforts of design. Whether we are learning or relearning the skills of everyday living, our successes or our failures will be by design. The universal challenge of meeting the needs and wishes of all consumers with appropriate and exemplary design is the mission of all of us who have the gifts and the power to create. Ultimately, when we provide inclusive solutions, we have done our best work. For me, exclusion is excruciatingly unacceptable.

The contributions to the goals of inclusion featured in this issue serve as exemplars of what can and should be done, by design. It is our hope that this body of work intrigues and incites the dedication of design as the most powerful weapon for capacity, comfort and, yes, peace. ■

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