

Smithsonian Features Universal Design

What's new on the universally designed product front? Find out by visiting the Smithsonian Institution's Cooper-Hewitt National Design Museum in New York City, which recently opened a major universal design exhibit called *"Unlimited By Design."*

The exhibit, which runs through March 21, features more than 150 universally designed products. According to Dianne Pilgrim, Cooper-Hewitt's director, "Universal design is good business. If products are designed so that more people can use them, more people are likely to buy them."



One of the many innovative *"Unlimited By Design"* exhibits, the Universal Kitchen was developed by the Rhode Island School of Design.

Universal Kitchen

One of the many innovative exhibits, the Universal Kitchen was developed by the Rhode Island School of Design (RSID). The project was headed by the late Marc Harrison (see *"Design Community Bids Farewell to Marc Harrison,"* on Page 2), Jane Langmuir, assistant professor of interior design and the project director, and Peter Wooding, a professor in RSID's Interior Architecture Department and the project design director. The Universal Kitchen was developed with the help of more than 100 students and 17 corporate sponsors.

Started in 1993, the Universal Kitchen project includes a deluxe "maxi" model and a smaller "mini" one for apartments, hotels and dorm rooms. These energy-efficient, radically redesigned prototypes contain refrigeration units, sinks, ovens and storage spaces that can be combined to meet individual needs.

"Generally, appliance manufacturers, cabinet makers and the plumbing industry have not addressed kitchens in terms of universal design,"

See Smithsonian Exhibit, page 10

Theater Case Questions ADA-Certified Building Codes

Does compliance with a Department of Justice (DOJ)/Americans with Disabilities Act (ADA) Title III-certified state building code give building owners confidence that they have complied with the ADA? The answer apparently is "no," if the Cinemark USA court case in El Paso, Texas is any indication.

In this case, eight individuals with disabilities and two disability advocacy groups, Volar Center for Independent Living and ADAPT, brought a private suit against Cinemark USA. The suit alleges that Cinemark's Tinseltown USA movie theater complex in El Paso fails to provide "appropriately" integrated seating for people with disabilities in 18 of its 20 auditoriums.

The claim further alleges that wheelchair users are relegated to the front of the theater, and that their lines of sight are inferior to those provided to the majority of the general public.

See Theater Case, page 3

CONTENTS

1	Smithsonian Features Universal Design
1	Theater Case Questions ADA-Certified Building Codes
2	Designers Beware: It May Be the Spirit, Not the Letter, of the Law that Counts
2	Design Community Bids Farewell to Marc Harrison
4	Universal Design Conference: Part II
5	Artist Colony Goes Universal
6	Home Buying in Japan
8	Upcoming Accessibility Guidelines
11	Auditorium Design Offers Universal Seating
	FedWatch.....3
	New Media..... 7
	Design Tips.....8
	New Products..... 9
	Calendar.....12



Designers Beware: It May Be the Spirit, Not the Letter, of the Law that Counts

Recent court decisions are once again redefining the Americans with Disabilities Act (ADA) for designers and building owners. While construction professionals usually have relied upon implementing regulations, disability advocates are now focusing on the spirit of the law, and courts across the nation seem to be agreeing with the advocates.

In recent court decisions involving the Washington, D.C., MCI Arena and Portland, Ore., Rose Garden Arena, judges have ruled that owners must provide a level of accessibility that is consistent with the spirit of the law.

The Cinemark theater case court ruling (*see article on page 1*) demonstrates this trend by overturning a building code approval, even though that building code was certified as being equivalent to the ADA by the U.S. Department of Justice (DOJ).

The few states (Washington, Florida, Texas and Maine) that have made it through the lengthy and laborious building code certification process must now ask themselves, "What does this mean for us?"

Congress, the DOJ and disability advocates have encouraged the certification process. The DOJ says, "It allows builders to be assured of compliance through inspections early in the construction process." Well, it doesn't seem to be working.

I was called as a witness for the defense in the Cinemark case and concluded that the designers had complied with the regulations. The problem, however, may be with the way that the regulations are written. They include poorly defined terms that are officially explained by the DOJ only when a case has gone to court, and even then, only infrequently. In this case, it was an *amicus* brief with a new interpretation that supported the plaintiff's claims and overturned the building code.

Now I ask you, should building owners and designers be required to guess what is on the minds of disability advocates and the attorneys at DOJ and pay a substantial price when they guess wrong? I don't think so. Something is broken and it should be fixed.

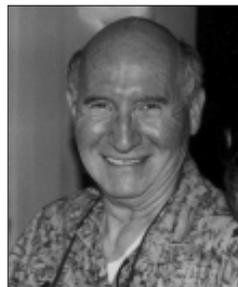
Copyright 1999 UD&C - Authorization to photocopy items for the internal or personal use of specific subscribers is granted by **Universal Design Newsletter**. Any other reproduction in any form is prohibited without express permission from the Publisher. **Universal Design Newsletter** is published quarterly by Universal Designers & Consultants, Inc., 6 Grant Ave., Takoma Park, MD 20912-4324; 301.270.2470 (v/tty); 301.270-8199 (fax). **E-Mail:** UDandC@erols.com. **Home Page:** www.UniversalDesign.com.

John P.S. Salmen, AIA, Publisher & Managing Editor; Monique C. Silverio, Editor; James DiLuigi and Elaine Ostroff, Consulting Editors; Carrie Smoot, Contributing Writer.

Universal Design Newsletter is published by Universal Designers & Consultants, Inc., which is frequently engaged by plaintiffs and defendants for consulting and expert witness services in ADA litigation, design review and facility evaluations.

Mail subscription rates: One year \$75 (U.S.). Second-Class Postage paid at Takoma Park, Md. Postmaster send address changes to **Universal Design Newsletter**, 6 Grant Ave., Takoma Park, MD 20912-4324. For information on advertising rates or obtaining alternative accessible formats, please call or write the **Universal Design Newsletter** Editor.

Design Community Bids Farewell to Marc Harrison



Marc S. Harrison, who guided the Universal Kitchen design project at the Rhode Island School of Design (RSID—*see article on page 1*) and was a worldwide leader in industrial design, died in September 1998 at his home in Portsmouth, R.I. Harrison, who battled Lou Gehrig's disease for two years, was a beloved professor and former chairman of the Industrial Design Division at RSID. He also was president of Marc Harrison Associates, an industrial design and engineering consulting group.

Among his many accomplishments, he is best known for re-designing the Cuisinart food processor in 1977. Basing his design upon limited hand function and vision deficits, Harrison improved its ease

of use for everyone. Other products he designed range from turnstiles and other equipment for the Boston, Philadelphia and New York City transit systems to supercomputers. His work has been shown in major design retrospectives, including exhibitions at the Whitney Museum in New York City, the Philadelphia Museum of Art and the Brooklyn Museum.

Harrison, who joined the RSID faculty in 1959, made the needs of people with disabilities integral to the overall design process. In 1963, he received one of the earliest federal grants for rehabilitation design. He always provided his students with real life experiences, urging them to respond to people's unique needs in each situation. In an e-mail exchange a few months before he died, he said, "The goal was to sensitize our students about real human design issues in the process, no matter what design road they would take, and hopefully carry with them universal design attitudes."

Harrison's many awards include an honorary doctorate from RSID and the National Design Educator of the Year Award from the Industrial Designers Society of America. 



Over-the-Road Bus Guidelines

The U.S. Access Board has released its final guidelines for over-the-road buses that have an elevated passenger deck over a baggage compartment. The guidelines went into effect in September 1998.

Developed jointly with the U.S. Department of Transportation, the guidelines cover new specifications for ramps, wheelchair lifts and wheelchair securement devices that will make new over-the-road buses accessible to people who use wheelchairs and other mobility aids. The provisions allow passengers with disabilities to board and ride buses without having to transfer from their mobility devices.

The guidelines also update existing specifications for doors, steps and lighting, and require that at least 50 percent of aisle seats have movable or removable armrests so that people with disabilities can enter and exit seats more easily. Copies of the guidelines are available free by calling 800.872.2253 (voice); 800.993.2822 (TTY); www.access-board.gov.

Study Explores ITM Accessibility

How do you make interactive transaction machines (ITMs) accessible? Check out a study conducted by the Trace Research and Development Center at the University of Wisconsin. Funded by the Access Board, the study examines access to automated teller machines (ATMs), ticket and fare vending machines, and information kiosks.

For more information, visit: www.trace.wisc.edu/world/kiosks/itms/ or call the Access Board at 800.872.2253 (voice); 800.993.2822 (tty). The website includes user access strategies and a compilation of relevant accessibility guidelines from the United States, Australia, Canada and the United Kingdom. The website also includes the Trace Center's recommendations about ITMs.

Technical Committee Formed

The Access Board has developed an Advisory Committee to assist it in developing accessibility standards for electronic and information technology purchased by federal agencies.

The Rehabilitation Act Amendments of 1998, which was signed into law in August 1998, requires the board to establish such standards after consulting with various federal agencies, representatives of the information and technology industry, and groups representing people with disabilities. The standards, which must be developed within 18 months, will become part of the regulations that govern federal procurement practices.

Committee meetings are open to the public. For more information, call the Access Board at 800.872.2253 (voice); 800.993.2822 (tty). 

Theater Case, from page 1

Cinemark USA is one of a growing number of theater owners/operators across the country who are building multiplex commercial cinemas with tiered seating and high-quality sound systems.

Cinemark's designers made efforts to provide quality lines of sight and emergency egress safety for persons using the wheelchair seating positions. To do this, they placed the wheelchair positions and companion seating where they would have two means of egress—at least three rows back from the front of the theater in a sloped area at the bottom of the tiered section of seating.

DOJ filed an *amicus curiae* (friend of the court) brief supporting the plaintiffs, despite the fact that it had previously certified the Texas state building codes as being in compliance with Title III of the ADA Standards for Accessible Design. The DOJ brief included a new definition of integrated seating and comparable lines of sight for stadium-style movie theaters.

The court granted DOJ's request to participate as an *amicus curiae* because DOJ enforces the Title III building regulations at issue in this case.

The DOJ differentiated between tiered and sloped seats in the fixed seating plan, stating that since "stadium-style seating is the product that Cinemark offers, it denies access to the stadium..."

DOJ went on to address the line of sight issue, stating that "lines of sight comparable to those for members of the general public" means that "in stadium-style seating, wheelchair locations must provide lines of sight *in the stadium-style seats* within the range of viewing angles as those offered to *most* of the general public in the stadium-style seats, *adjusted for seat tilt*."

The court ruling for the plaintiffs came in spite of the fact that Cinemark Tinseltown had passed plan reviews and inspections of the building for compliance with the Texas Accessibility Standards (TAS) by state-certified building officials.

The court went on to state that the question of how far a court could go in interpreting the ADA standards or TAS was "a difficult one on which reasonable minds could have different opinions."

In an unusual ruling, the judge certified the case, allowing an appeal to the 5th Circuit Court of Appeals before completing remediation.

Cinemark USA and many industry observers are now wondering if there is actually any value in ADA-certified state and local building codes and, consequently, what, if any, compliance assurance such building codes can provide. 

The U.S. Access Board's final guidelines for Over-the-Road Buses went into effect in September 1998.

Universal Design Conference: Part II

Disney and Bell Atlantic: Embracing Universal Design

Editor's note: Part one of this three-part series, which appeared in the October 1998 issue of Universal Design Newsletter, focused on a presentation given by the late Ron Mace at the "Designing for the 21st Century Conference." Held in June 1998 at Hofstra University in Long Island, N.Y., the conference featured educational sessions by renowned experts in the field.

The following article highlights the universal design principles that have been embraced by Disney and Bell Atlantic. Part three, which will appear in the April 1999 issue, will focus on housing innovations that incorporate the needs of the aging and disabled population.

Disney Amusement Parks

By John Scott, AIA

Disneyland was built more than 45 years ago by people from the movie industry, not by architects. Those who built the park were scene designers from the studio, who knew they had to design with families in mind.

Originally, Disneyland didn't have any stairs. It was an accessible environment. When the company started working on Magic Kingdom in Florida, it voluntarily set its own ambitious goals with regard to accessibility. When Disney built EPCOT, it applied even higher accessibility standards—not only in the built environment, but also with regard to amusement ride access. Although unfamiliar with the term, Disney was already practicing elements of "universal design."

In 1990, when the Americans with Disabilities Act (ADA) came into play, the company decided to not only bring the accessibility regulations into the design of its theme parks, but to really push the envelope and go way beyond what the codes actually required.

Disney sees universal design as having four primary components:

1. Usability.
2. Cross utilization. It must benefit the greatest number of people possible.
3. Walking in your guest's shoes. It's important to know how people mechanically do things, how they access things, how they perceive things and how they use things. Designers don't always sufficiently understand how people work. They may understand how the interactive environment works or how the software works, but not how people work.
4. Mainstreaming. This means that you create one operational program and one procedure so that people are not separated out.

Literacy is another important element in environmental design. An environment needs to be visually clear, telling people how they can get from here to there. Things should be self-evident. This is especially important in the entertainment industry. Things must be visually literate for people to be able to use an environment well.

Another important element is group accommodation. So much is written about the individual. However, amusement parks deal with groups—family groups and social groups. Individuals simply do not come to an entertainment experience alone.

Universal design goes beyond building code compliance. It goes beyond pulling out a tape measure to make sure that we have clear answers. It's a process. It's a way of doing business. It's dynamic. It doesn't end at the drafting board or at the construction site. It goes all the way out into the operation of the park.

Bell Atlantic

By Jerry Berrier, with Bell Atlantic's Center for Customers with Disabilities

Bell Atlantic adopted universal design as a process for design, as well as a way of doing business, when it merged with NYNEX more than a year ago. This builds on the experience in Bell Atlantic's Center for Customers with Disabilities in Massachusetts. This equipment program includes service representatives who are specially trained to handle calls from people with disabilities.

Most people are aware of the concept of universal design as it relates to a building. It's a little different in the electronics industry. In the electronics industry, you design a product today, and three months from now, someone else comes up with a new and improved version.

Universally designed products are not just for people with disabilities. They're for everyone. An example of this is the talking caller ID.

The caller ID is a small visual display that enables you to see the phone number of your caller. Based on requests from people who are blind, a talking model with caller ID is now available, as well. It turns out, however, that talking caller ID has utility and interest among a much wider audience than people who are blind. Let's say you're in the middle of doing the dishes or changing the baby, for example. With talking caller ID, you don't have to get up and quit what you're doing when the phone rings. As long as you're in earshot, you can decide whether or not to take the call.

"Universal design goes beyond code compliance. It's a way of doing business."

—John Scott, Disney

Artist Colony Goes Universal

Millay Colony for the Arts Opens Universal Building

By Ann-Ellen Lesser

The Millay Colony for the Arts was established in 1973 at Steepletop, in Austerlitz, N.Y. Former home of the poet Edna St. Vincent Millay, it provides writers, composers and visual artists with a place in which to work.

For many years, the Millay Colony studio and living accommodations were in the old farm buildings of the estate. Although charming and serviceable, they were inaccessible to people with disabilities, difficult to maintain and had other functional drawbacks typical of older buildings.

Recognizing that further adaptations of existing space would not address its concerns, the Millay Colony decided to build a new space that would:

- Be universal in design.
- Replace some of the spaces that were already in use.
- Create additional studio/living space.
- Be functional for the artists' work.
- Be responsive to maintenance and environmental concerns.

The resulting facility provides Millay's resident artists with cooking, dining and socializing areas, a music room and a sitting-darkroom. It features two studio/living areas, one of which has a second bedroom to accommodate an artist with a disability who travels with an assistant. The space is flexible, accommodating and neutral, so that it is the artist, and not the space, who makes a statement.

The Millay main building was designed by a group of architects, designers, contractors and six artists with disabilities. Artist/designer Michael Singer, who formed the design group, described the advantages of using a team approach: "Projects and their creative processes are most successful when boundaries are expanded and new information leads to further questioning."

He added, "The challenges of designing a universal space that also addressed complex program requirements could not have been undertaken without the input and support of members of the artist advisory committee. Their review and sensible suggestions were instrumental in achieving a comfortable, aesthetically pleasing, functional environment for all artists."

After the footprint of the building was established, a meeting was held with the designers, the executive director of the Millay Colony and the artist advisors. A model and tactile drawings of the initial design were used to facilitate the discussion. The group did a walk-through of the building, stop-

ping in each space to review its universality and to discuss how it would work for people with and without disabilities.

A key guideline for the group was to think universally. Their discussion was taped, and a transcript was provided to each member for review. As a result of the meeting, the design team was left with issues that were open to three kinds of responses: a design decision, a program decision and a design choice (i.e., what works for one person might be more difficult for another). For example, carpet absorbs sound, which is good for people with hearing disabilities, but carpet is harder for people who use wheelchairs to traverse. Therefore, designers had to find a carpet that had low pile and was durable.

Throughout the design and building process, the artists with disabilities were called upon to review the project and to contribute their ideas.

The contractors on this project were brought into the design process early on and were key to finding inexpensive ways to solve problems. In some cases, off-the-shelf items were used instead of the more expensive "universally designed" items. (These items are more expensive because you are paying extra for their "universality.") The contractors and artist advisors either found or were already using more economical solutions.

In other cases, when a product did not exist or was not readily available, the Millay Colony formed partnerships with companies to modify some of their products. These included a universal darkroom by PLF Imaging; a source-capture exhaust system designed by Nederman Inc. for an artist's studio; a universal kitchen by Whirlpool, Inc.; and universal tableware by Marusya. All of these universal products are now available through these companies.

Ultimately, according to the design team, the goal is usability. Accessibility is not enough. Alternatives have to be considered until a real solution emerges that makes a space or product universally usable for all.

Ann-Ellen Lesser is the executive director of The Millay Colony. Information about the colony's universal design project is available at the following web address: www.millaycolony.org.



"Projects and their creative processes are most successful when boundaries are expanded and new information leads to further questioning."

—Michael Singer, Artist/Designer



The dining area in the universally designed main building at the Millay Colony for the Arts.

Home Buying in Japan

Housing Parks Promote Universal Design Housing Options

By Paul Grayson

When building or buying a house in Japan, you don't have to reach for the real estate section of a local newspaper, check the yellow pages for a builder or call upon a real estate broker to locate a house. Instead, you visit a Housing Park.

Housing Parks, which are located throughout Japan, are open year round. The concept represents a unique marketing and sales approach that's not unlike attending an auto show, where car manufacturers display different models and products. It permits prospective buyers to inspect house designs in order to make informed decisions.

The first Housing Park built in Japan, according to Yoshiaki Goto, chief researcher at the Sekisui House R&D Institute in Kyoto, was developed in the early 1960s by a housing manufacturer. In the mid-60s, an advertising agency brought together a number of manufacturers and service organizations. Today, developers, product suppliers, media organizations and non-profit groups develop the setting, share the cost of renting the land and provide public amenities. Admission is free.

The exhibit house is set up in a mini-village, with 10 or more models of various sizes, features and costs. Information kiosks provide location maps and literature on manufacturers' model types. Some of the larger parks have a visitor's center, with a display area, gift shop, lecture room, lunch area and even a children's play area.

Rest areas with benches, drinking fountains and toilet facilities are strategically located. Directional sign posts and large-scale site maps are posted to help visitors find their way to the models. At each model, which usually is furnished, visitors can take a walk-through, obtain literature and talk with sales representatives about details, finishes and price options.

One such location near Tokyo resembles an entertainment theme park that is usually filled with families and children enjoying the opportunity to learn about their housing options. At the park, people are able to gather data to make informed decisions about their future housing needs. Two of the models, one developed by Homest and the other by Misawa Homes, are universally designed and totally accessible.

Another Housing Park in Mitaka, a suburb of Tokyo, features a triplex model house by Sekisui House Ltd. that also is universally designed. Called



The meal preparation counter in this apartment is part of the dining table. Wheelchair front access at the sink and stove is made possible with wheeled and relocatable under-counter storage carts.

the Lifetime House, it was designed to support, on the ground floor unit, a family with a disabled parent who is a wheelchair user. The second level contains an apartment and features well-illuminated stairs and an elevator. The lower level contains a studio apartment.

All bathing, sleeping and living areas in the Lifetime House models are accessible. The attached garage is high and wide enough to accommodate a van ramp and wheelchair circulation.

A home automation system can be programmed to control heating, ventilation and air conditioning, lighting and an entertainment center. Users also can use a remote device to operate control windows, doors, draperies and blinds. An automatic shut-off valve helps prevent tub or sink overflows.

A closed-circuit television at the entrance of the Lifetime House announces visitors. In addition, the home automation system can be connected to a hospital's emergency medical response service to monitor the occupant's blood pressure. It also can provide the resident with audio reminders, such as, "It's time to take your heart medicine."

The accessible Lifetime House model subtly alert visitors to the reality of disability and to the benefits of a supportive environment.

Ota Akio, senior manager of building systems research at Sekisui House Ltd., credits Housing Parks for about 30 to 40 percent of house sales in Japan. Sekisui House literature states that "A good house is also easy to live in by the aged and handicapped," and that "all houses must be designed for the future by considering their occupants becoming old."

Paul Grayson is an advisor to architects, service providers and users on universal design. He can be reached at Environments for Living; phone: 781.721.1920. Or at the following e-mail address: PJGrayson@aol.com.



Lifetime House models in Japan subtly alert visitors to the benefits of a supportive living environment.



The living room of this apartment allows convenient access to the seating area and provides a transfer seat at the sofa. The wood floor facilitates wheelchair movement and is easy to maintain.



Design for Ageing Network

The Design for Ageing Network (DAN) of Europe was co-founded in 1994 by the Netherlands Design Institute (NDI) and the Directorate General V of the European Commission.

Members of DAN came together to better understand the needs of Europe's aging population and, in turn, to help design products with those needs in mind. Headquartered in London, DAN member countries include Belgium, Germany, France, the Netherlands, the United Kingdom, the Nordic Countries and Greece. Any interested professional may join. In addition to a member database, the DAN site features award-winning examples of student design work, back issues of its newsletters and various publications. The site also is linked to conferences and other resources in the field of aging design.

NDI recently started a project called the Obstacle Course, which allows individuals to share their stories about barriers. Some of the stories that appear on the site cover transportation, seating, and entrances and exits. "For the moment, NDI is concentrating on one obstacle, which is the inefficient communication between users, producers and designers," said Anne Voshol, coordinator for Design & Age at NDI.

You can explore the network's website at: <http://valley.interact.nl/DAN/home.html>.

Designs for the Visually Impaired

"*Building Sight: A Handbook of Building and Interior Design Solutions to Include the Needs of Visually Impaired People*" was written by three experts at England's Royal National Institute for the Blind—Peter Barker, Jon Barrick and Rod Wilson. Barker is visually impaired and Wilson is blind. Their knowledge and experiences add a unique perspective to this impressive book.

The authors begin by explaining the importance of inclusive design and outlining three crucial design elements: layout, visibility and lighting. A discussion of vision loss, accompanied by photographs showing what happens to a person's vision under certain conditions, is particularly illuminating.

The book points out good and bad interior and exterior designs. Most spaces profiled are public buildings and open areas. When contrasting colors are discussed, home environments are included as examples. The proper design of stairs, including treads and contrasting edges, is discussed at length.

Designers and architects will find the diagrams clear and easy to understand. The 185-page book also contains an easy-to-read font, with wide leading. Measurements are given in the metric system, which may pose difficulties for U.S. professionals.

The principal distributor of this book in the United States is AFB Press of New York City. The clothbound version costs \$59.95; the paperbound, \$42.95. To order, contact AFB Press, American Foundation for the Blind, 11 Penn Plaza, Suite 300, New York, NY 10001; phone: 800.232.3044.

Catalog of Accessible Products

"*Beyond Barriers: A Catalog of Innovative Accessibility Products to Enhance Freedom, Personal Dignity and Independent Living*" covers a wide variety of devices geared toward older adults and in-

dividuals with temporary or permanent disabilities.

Published by Access One, Inc., catalog items include: expandable door hinges; traditional and designer grab bars; sinks, tubs, toilets, showers and shower chairs; ramps; transfer slings; wheelchairs and other types of chairs; exercisers and walkers; and products for an accessible kitchen.

The catalog may be used as a reference tool for designers, architects and home remodelers. Throughout the publication, manufacturers' safety tips are included. A web and CD-ROM version of the catalog is planned. The cost of the catalog is \$5.00, plus \$1.00 for shipping and handling. To order, contact Access One, Inc. at 25679 Gramford Ave., Wyoming, MN 55092; phone: 651.462.3032/800.561.2223; or at the following web address: www.Beyondbarriers.com.

Does Your Home Fit Your Needs?

"*DoAble Renewable Home: Making Your Home Fit Your Needs*" was written to enable older people to stay in their own homes, rather than having to move to a more accessible residence. The 44-page publication is aimed at aging homeowners or Baby Boomers helping their parents adjust their homes to the reality of their aging bodies.

Written by John P.S. Salmen, AIA, the guide includes clear line-drawing diagrams, enabling readers to learn the specifics about doors, stairs and ramps, bathrooms and kitchens, and what would work in particular situations. An index is included, along with a financing option resource list, tips and useful organizations that people can contact.

Individuals may order up to 10 copies free from the American Association of Retired Persons (AARP). Bulk orders of 50 or more start at \$22.50. To order, call 800.424.3410, or write to AARP National Headquarters at 601 E Street, N.W., Washington, D.C. 20049. 

**"DoAble
Renewable
Home" helps
older people stay
in their own
homes, rather
than having to
move to more
accessible
residences.**

Universal Design
Newsletter provides
a one-year free
subscription for any
tip that we publish.

? **Problem:** Table lamps and free-standing room lighting is often operated by small switches on the electrical cord or head of the fixture that require tight grasping or fine finger dexterity.



Tip: Many hardware retailers carry a "touch lamp" adapter that screws into the light bulb socket. With each touch to any metal part of the fixture, the lamp turns on, goes through a gradation of lighting intensities and then turns off.

? **Problem:** Most of the space in above-counter kitchen wall cabinets is out of the reach of many people.



Tip: The National Kitchen and Bath Association's new book by Mary Jo Peterson, "*Universal Design of Kitchens & Bathrooms*," demonstrates a pull-down shelving system, used in the GE Real Life Design kitchen, that places most of the storage within reach. (Watch for the review of this exciting new publication in the next issue of Universal Design Newsletter). 



Design Conference, from page 4

Another example is the vibrating pager. Initially designed for people who are deaf, this product now enjoys widespread appeal.

Why is Bell Atlantic committed to universal design? Because it enables the company to better serve its customers and make money. As Bell Atlantic develops new products, it will do so with an eye towards universal design and accessibility.

Bell Atlantic also is looking at the way it markets its products and will use techniques aimed at people with disabilities. In addition, Bell Atlantic will try to employ these fundamental principles in all of its relationships with stockholders, employees, contractors and customers.

So what has happened since Bell Atlantic committed to universal design? It has discovered some interesting things. For example, while voice mail works great for people who use a phone in the traditional way, there is no network solution that enables a person using TTY to effectively use Bell Atlantic's voice mail service.

Universal design is a long-range concept. It's not something that can be done overnight. Therefore, Bell Atlantic needed to start immediately to take steps towards accessibility. Once the company reaches universal design, accessibility solutions for people with disabilities will rarely be needed. The question is whether we will ever really reach the universal design ideal, but it's certainly a worthy goal at which to aim. 

Send Your TIP To:

Universal Design Newsletter,
6 Grant Avenue, Takoma Park, MD 20912-4324;
fax: 310.270.8199; e-mail: UDandC@erols.com

Upcoming Accessibility Guidelines

Following is a list of U.S. Access Board guidelines that are currently pending.

- 1. Play Area Guidelines.** The Access Board is reviewing public comments prior to publishing its final guidelines.
- 2. ADDAG Review/Federal Facilities/Housing.** In March, the Board decided to combine into one rule the revision of ADAAG, the update of federally funded facilities covered by the Architectural Barriers Act and the proposed Title II housing guidelines. Hoping to finish its work this month on this new three-in-one rule, the Board is scheduled to publish a proposed rule for public comment in April.
- 3. Recreation Facilities.** The Access Board is finishing its work on proposed guidelines for sports facilities, places of amusement, golf, boating and fishing facilities. It will then publish a proposed rule for public comment.
- 4. Outdoor Developed Areas.** Now that negotiations have been completed, the Board has published a proposed rule for public comment. The proposed rule is available by calling the Access Board at 800.872.2253 (voice); 800.993.2822 (tty). 

PRODUCTS

Flexible Safety Covers

Handy Shield™ safety covers are designed to protect wheelchair users from injuries caused by exposed pipes and sharp edges in restrooms and kitchens. The covers feature an exterior vinyl shell over soft, flexible, fire-retardant closed cell foam. A dual fastening system composed of one-inch Velcro™, coupled with strong clips, helps to ensure secure enclosure and theft resistance. The covers are available for P-traps, valve and supply lines, offset tailpieces for elongated sinks, flush valves, kitchen/bar sinks and waste disposals.



Seamless Texturing for Concrete

The Stampcrete® seamless texturing system is composed of integrally colored, cast-in-place concrete stamped with patented platform/texturing tools. For use on floors, paths, walkways and driveways, the system creates a smooth surface that looks like natural stone or brick, but eliminates potential tripping hazards caused by the uneven settling of adjacent surfaces. Designs such as diamonds, circles, checkerboards and borders can be added with concrete saws.



Ramp Rider for Wheelchair Users

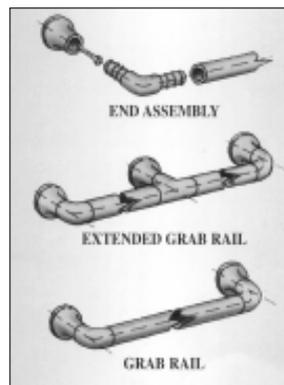
The Marina Ramp Rider provides battery-powered, independent wheelchair access to gangways from floating docks without the user having to leave the wheelchair. Once the wheelchair is on board, the ramp car door can be closed by the rider or will close automatically. As the car leaves the landing, a safety ramp automatically raises and locks, securing the wheelchair in place. A glass door and sides provide unrestricted visibility.



Other safety features include: self-leveling capability regardless of water level; an audible alarm that sounds when the car travels without a rider; mechanical and electrical interlocks on the door; and a key-reset thermal interlock to prevent travel in freezing temperatures.

Modular Grab Rails

The STUDREACH modular grab rails, available for the tub or shower, have been designed to ensure secure anchoring to wall studs. When installation is complete, all of the fittings are concealed, thus creating smooth lines and a uniform appearance.



The grab bars have glass-filled nylon end pieces and connectors, and strong aluminum rails with a slip-resistant powder-coat finish. All fittings are available in almond ivory and white.

Plumberex Specialty Products Inc.

(Handy Shield)
P.O. Box 1684
Palm Springs, CA 92263
Phone: 800.475.8629/
760.343.7363
Fax: 760.343.7366
www.plumberex.com

Stampcrete Intl.

(Textured Concrete)
325 Commerce Blvd.
Liverpool, NY 13088
Phone: 800.233.3298/
315.451.2837
Fax: 315.451.2290

Marina Accessibility Products Inc.

(Ramp Rider)
6263-186A street
Surrey, BC V3S 7N7
Canada
Phone: 604.576.7752
Fax: 604.576.7822
www.marina-access.com

Canterbury Concepts

(Modular Grab Rails)
P.O. Box 224
25 Mailing Road
Canterbury, Victoria
3126 Australia
Phone (from the U.S.):
011.61.3.9830.0255
Fax (from the U.S.):
011.61.3.9830.0355



Volume III Editorial Index Is Now Available!

A compilation of all articles that were published in **Universal Design Newsletter** between Jan. 1997 and Dec. 1998 is now available. *That's a total of eight full issues!*

- ◆ Learn about the extraordinary movers and shakers, new products, and hot topics in the field of universal design.
- ◆ Spiral-bound copies of Volumes I, II & III are available for \$150.00 each.
- ◆ To order, call **301.270.2470** or visit our website at: **www.UniversalDesign.com**.

The New Products Column was provided by the ABLEDATA project, a computerized database of information on assistive equipment that is funded by the National Institute on Disability and Rehabilitation Research and administered by Macro International, Inc., located in Silver Spring, Md.

Smithsonian Exhibit, from page 1

said Langmuir. For example, using demographics and time-motion studies, research has found that people using a traditional kitchen cook spaghetti in 400 steps. A sampling of prototype users, on the other hand, was able to finish the task in 100 steps.

The kitchen provides for a person's natural comfort reach zone of 16 to 18 inches, and has ample turning space. The design puts everything within easy reach, thus omitting extra preparation steps. Counter heights can be adjusted from 28 to 40 inches and no-spill edges can be used as grab rails. Contrasting colors are used for easier reading of controls—red for hot, blue for cold, and so on.

The "maxi" Universal Kitchen design also has an adjustable island for food preparation and unique, smaller dishwashers for easy clean-up while cooking. Multiple-height carts and trays can be used for transporting items, trash removal and recycling. Oven and cabinet doors retract and slide back, and don't interfere with the work space. The counter-level oven lessens the danger of lifting hot dishes to a work surface.

Other Innovative Designs

Numerous other universally designed products are on display at the "Unlimited By Design" exhibit, including the following:

1. Various home office product designs, such as: a curved work table that offers maximum space and comfort; a small roll-around table that provides added flexibility for the user; large keypad telephones and calculators; vibrating doorbells and a thermostat with audible feedback (clicking noises tell the user when the temperature is adjusted).

2. A bathroom from Design Continuum that can adapt to changing life styles. Fully adjustable, it includes a toilet, sink, shower, towel rack, grab bars, accessible faucets with long handles, rings or single knobs, and easy-to-grasp temperature controls.

3. A garden in a glass-enclosed solarium. Trowels, rakes and other tools were designed to improve reach and extend leverage.

4. A transgenerational playground from Playworld Systems. Built on tiered levels, the playground's rubber flooring provides a safe environment for children. Young children can grip the parts easily. Climbing or jumping toys include the Scrambler and U-Bounce, which enables a standing, kneeling or sitting child to bounce. A two-person slide lets children with disabilities slide with a friend.

According to Kevin Owens, director of innovations, "Many playgrounds aren't much fun. Too often, the approach for accessibility is just to build a ramp, which sets people apart."

5. A hallway exhibit that offers the lat-

est in wayfinding technology. The Voyager collection has clear, easy-to-read signage. Clothing with global positioning systems—such as a camera cap, shoes with arrows and a data scarf—assist people in finding their way. The Raynes Rail describes these objects in Braille and audio formats, while a talking BMW dashboard assists navigation.

6. An accessible technologies area, with web browsers, page readers and literacy programs. Included is a sitting-to-reclining adjustable chair with attachments for mounting a computer. Designed at the Center for Rehabilitation Technology at Georgia Tech, it helps those who have back problems continue to use a computer, in a supine position.



Photo Credit: Dave Casteel

Biomorph interactive desk, designed by Stephen Barlow-Lawson.

How the Exhibit Came About

"Access by Design," a book written by Bruce Hannah and George A. Covington, reportedly inspired the universal design show.

Hannah, a professor of interior design at Pratt Institute and a consultant who develops furniture for the Knoll Group, curated the exhibit with Covington. Covington is a legally blind attorney, photographer, former journalism professor and former disability policy adviser to Vice President Dan Quayle.

Hannah noted, "Too many universal design shows focus on people with disabilities. We wanted to show that universal design affects all of us."

The museum has long wanted to feature a universal design exhibit. "But first, we had to make the museum accessible," Pilgrim said.

To that end, Cooper-Hewitt completed a \$20 million renovation in June 1998. It includes a front entrance ramp and passageways connecting the museum and townhouses of the new Design Resource Center.

Prior to the renovation, Pilgrim and other persons who are in wheelchairs had to enter the building through a side entrance with the help of a guard.

"We're really pleased with the result," Pilgrim noted. "We have proven that historic buildings can maintain architectural integrity after a renovation. It just takes a little creative problem-solving." ■

The Cooper-Hewitt National Design Museum's new universal design exhibit has something of interest for all.



Photo Credit: Terry Wild Studio

First Play System, designed by Kevin Owens for Playworld Systems.



Printed on recycled
paper with
vegetable inks.

Events to be placed in the UDN Calendar must be submitted to the editor two months before the publication date.

**Universal Design
Newsletter
6 Grant Avenue
Takoma Park, MD
20912**

*Address Correction
Requested*

Nov. 17, 1998 - March 14, 1999: *"Unlimited by Design,"* in New York City (see article on page 1). The Cooper-Hewitt Museum is hosting the first major exhibition of products, services and environments designed to meet the needs of all people throughout their lifespan. For more information, contact the Cooper-Hewitt at 212.849.8300 or at <http://www.si.edu/ndm/>.

Jan. 15, 1999: Call for Papers deadline for *"Aging in Place: Designing, Adapting and Enhancing the Home Environment."* Suggested topics include: universal design or ADA and the elderly; design principles to promote independent living; lessons from the disability community; and creating environments for specific populations. The targeted audience is occupational and physical therapists, designers, architects, planners, social workers and community organizers. For more information, call 914.528.4341 or via e-mail at: JCarlsonOT@aol.com.

Jan. 28-30, 1999: The *"1999 Restoration & Renovation Expo and Conference."* This event, which will be held in Washington, D.C., will include presentations on accessibility and historic integrity by Bill Lebovitch. It also will include a panel discussion on universal design for historic buildings and grounds. For more information, contact EGI Exhibitions at 800.982.6247, ext. 10, or be sure to check out the following website: www.egiexhib.com.

Jan. 28-29, 1999: *"Home Modifications: Skills, Approaches and Teamwork."* Sponsored by the Rehabilitation Institute of Chicago, this event will present strategies for making homes accessible to people with disabilities. Presenters include staff from the Center for Universal Design. For more information, contact Don Olson at 312.908.6179 or via e-mail at: dolson@rehabchicago.org.

April-May 1999: The National Employment Law Institute will conduct a series of seminars discussing the status of accessibility and employment issues surrounding implementation of the Americans with Disabilities Act. Sites include: San Francisco, April 8-10; Chicago, April 15-17; and Washington, D.C., April 22-24. For more information, contact NELI at 415.924.8844.

July 12-16, 1999: *"Vision '99, International Conference on Low Vision,"* in New York City. Sponsored by The Lighthouse Inc., this event will highlight research and strategies for dealing with low vision in the environment. For more information, contact the Lighthouse at 212.821-9482 or via e-mail at: vision99@lighthouse.org.

June 14-18, 2000: *"Designing for the 21st Century, Second International Conference on Universal Design."* This event, to be held in Providence, R.I., is sponsored by Adaptive Environments Center, the Center for Universal Design and *Universal Design Newsletter*. For more information, visit the website: www.adaptive@adeptenv.org.



