



## The Loss of a “National Treasure” *Design Community Mourns the Loss of Ron Mace*

By June Isaacson Kailes

**R**on Mace, an internationally recognized architect, industrial designer and educator, died unexpectedly at his home in Raleigh, N.C., on June 29.

Mace, a visionary, was best known for developing and passionately promoting the concept of universal design. Over the course of his career, he made numerous and vital contributions to the field of accessibility. As Elaine Ostroff, founding director of the Adaptive Environments Center, explained, “Ron brought a humanity to design work and technical standards. He taught many why the ‘inches’ mattered.”

Leslie Young, one of Mace’s closest colleagues, noted: “He had an incredible standard of excellence. His architectural and product design solutions were simple and graceful. He understood the intimate connection between full and equal use of the built environment and access to life’s richness. He attended to design detail in an unequaled way, because of his deep understanding and appreciation of how people work and use places, spaces and products.”

Co-worker Jan Reagan said, “You see Ron’s work everywhere. The diagrams, the illustrations and the slides are stellar, solid, well thought-out and good design.”

See Ron Mace, page 8



Ron Mace

## The Changing Face of ADAAG

*Preparing for the “Next Generation” of ADAAG Requirements*

By Lawrence G. Perry, AIA

**R**emember the highly touted *Final Report* that the Americans with Disabilities Act Accessibility Guidelines (ADAAG) Review Advisory Committee delivered to the U.S. Access Board in September 1996? Two years later, how has this document affected accessibility requirements at the federal, state and local levels? Not one bit!

However, this report (available from the U.S. Access Board at 800.USA.ABLE) is still an essential resource for anyone involved with accessibility. The report has not been cast aside; rather, it has served as the foundation for developing the “next generation” of accessibility regulations, which will hit the streets in the near future.

Each of the following, discussed in detail below, are being shaped by the ADAAG review recommendations:

- ANSI A117.1.
- The International Building Code.
- The BOCA National Building Code.
- The SBCCI Standard Building Code.
- All federal accessibility guidelines.

See ADAAG, page 10

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## Saying Goodbye to Ron Mace

This *Universal Design Newsletter* issue honors the life and visions of Ron Mace. His untimely death on June 29, 1998 was a terrible loss to all of us. Some readers might remember that Ron was an advisor to *Universal Design Newsletter* during its first year of publication—one of the many projects

that Ron helped to initiate during his illustrious and remarkable career.

Working with Ron on many projects and presentations over the years, I was honored to call him my colleague, and lucky to call him my friend. He changed my life and my career. In fact, Ron helped me get my first accessibility job in Washington, D.C., back in 1980. This comes as no surprise to those who knew him, for Ron was a mentor to many of us in the industry.

Through our frequent contact over the years, Ron showed me a clear idea of designs that work for everyone (see the Earth Berm article on Page 11). His vision of universal design was affirmed on an international scale at his last public appearance, the "Designing for the 21st Century Conference" (see

article on page 4). As two of the co-sponsors of that event, Ron and I were amazed at the response and enthusiasm we received from around the world, and thrilled by the recognition that this event helped to generate for the universal design field.

Ron's death may very well represent the end of the first generation of universal design. The second era is just beginning. Ron was the scout in this new territory for the first 20 years. He led the crusade for barrier free, then accessible and finally universal design. He created the term "universal design," which is fast becoming a household word.

Now, at the beginning of the second era, a groundswell of public demand is rising. You see the term being used in the *New York Times* and in the Home Section of your Sunday newspaper. It's the kind of win-win inclusive concept that can be understood and embraced by everyone.

Ron led us this far. It is now our task to bring his vision into reality.

## NEA Renews Search for Excellence in Universal Design

The Center for Universal Design, School of Design at North Carolina State University, has been awarded a grant from the National Endowment for the Arts (NEA) to develop a CD ROM collection of Universal Design exemplars. Building on the project *Images of Universal Design Excellence*, sponsored by Universal Designers & Consultants, NEA and the National

Building Museum, this project will identify and visually document nearly 50 excellent examples of universal design.

*Images of Universal Design Excellence* was a milestone achievement in presenting the first-ever juried collection of universal design exemplars. The *Images* are currently available as a collection of slides and text, and are often shown as a slide presentation. The new CD ROM will expand and enhance the works in the *Images* collection.

The Center for Universal Design is now soliciting projects to be juried for inclusion in the new CD ROM of Universal Design Exemplars. Designers of all types are encouraged to submit their projects for jury review. For an application, contact The Center for Universal Design, School of Design, Box 8613, Raleigh, NC 27695-8613 or call 800.647.6777, or e-mail at cud@ncsu.edu. 

### Letters to the Editor

*Universal Design Newsletter* welcomes letters to the editor. All letters must be previously unpublished, signed and typewritten on company letterhead, if appropriate. Unsolicited manuscripts and letters become the property of *Universal Design Newsletter* and cannot be returned. The editor reserves the right to edit all letters for length, style, clarity, spelling and punctuation. Send letters to: Editor, *Universal Design Newsletter*, 6 Grant Ave., Takoma Park, MD 20912-4324, Fax 301.270.8199

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## Universal Design Bill Introduced

Sen. Christopher "Kit" Bond (R-Mo.), chairman of the Senate Small Business Committee, has introduced a bill that would provide federally supported incentives in all areas of assistive and universally designed technology. Rep. Constance Morella (R-Md.) has introduced a similar bill in the House. Both bills would amend the Rehabilitation Act of 1973.

Called the "Assistive and Universally Designed Technology Improvement Act for Individuals with Disabilities," the act would provide reform in the following areas:

1. An improved peer-review process at the National Institute on Disability and Rehabilitation Research at the Department of Education to help bring more assistive and universally designed products to the marketplace.
2. An expansion in the authority of the Inter-agency Committee on Disability Research to help better coordinate research and development among federal agencies and public-private partnerships.
3. Micro loan programs that would aid disabled persons in obtaining assistive and universally designed technology.
4. \$10 million in funding for the National Institute on Disability Rehabilitation and Research.
5. Tax incentives for businesses for the development of assistive technology, as well as credits for expenses incurred in the acquisition of new technologies needed to employ disabled individuals.

According to Sen. Bond, "As technology increasingly plays a role in the daily lives of Americans—in business, government, communications, employment and education—it is critically important that the more than 50 million individuals with disabilities not miss out on the full benefit of revolutionary advances that can help them lead better and more productive lives."

## State Prisoners Covered by ADA

The Supreme Court has unanimously ruled that the Americans with Disabilities Act (ADA) covers state prisons. Stemming from a case against the Pennsylvania Department of Corrections, the court ruled that the ADA provides no basis for distinguishing between the programs or activities of a prison from those provided by other public entities. It also ruled that the law's definition of a "qualified individual with a disability" does not exempt state prisoners.

In response to the court's decision, Sens. Jesse Helms (R-N.C.) and Strom Thurman (R-S.C.) have introduced a bill that would amend the ADA and the Rehabilitation Act of 1973 to exempt state and local agencies that are operating prisons from provisions covering public services.

## Rehabilitation Act Amendments Signed into Law

President Clinton has signed into law the Rehabilitation Act Amendments of 1998, which cover access to federally funded programs and services. In particular, the new law requires people to have access to electronic and information technology provided by the federal government.

The U.S. Architectural & Transportation Barriers Compliance Board (the Access Board) will be responsible for developing accessibility standards within 18 months for such technology after consulting first with numerous federal agencies, representatives from the information and technology industry, and organizations representing people with disabilities.

As a result, federal government agencies will have to purchase electronic and information technology that is accessible, unless it would cause an "undue burden."

## Architectural Barriers Act (ABA) Turns 30

The Access Board and U.S. General Services Administration (GSA) marked the 30<sup>th</sup> anniversary of the ABA by sponsoring a day-long conference on Sept. 10, called "Renewing the Commitment to the ABA." Members of federal agencies responsible for facility design, construction, alteration or leasing were among the invited guests.

The conference featured a session on the origination of the ABA, as well as the latest developments and changes to accessibility guidelines.

It also featured case studies of new and innovative design solutions concerning communications access, historic buildings, technology, new construction challenges, outdoor recreation areas and children's elements.

The conference also provided GSA and the Access Board an opportunity to brief federal agencies on their planned upcoming revisions to various accessibility guidelines. 

*"...It is critically important that the more than 50 million individuals with disabilities not miss out on the full benefit of revolutionary advances that can help them lead better and more productive lives."*

—Sen. Kit Bond (R-Mo.)

# Universal Design Conference: Part I

*First-ever universal design conference presents a wide variety of issues*

What is the difference between universal design and barrier-free design? What are some of the unique developments in the field of universal design, and how is the industry evolving as we head into the next century? How have companies like Bell Atlantic and Disney embraced the concept of developing universally designed products and spaces? What are the innovative and elegant housing solutions for America's disabled and aging population?

The answers to these questions and many more were among the highlights of the first-ever "Designing for the 21<sup>st</sup> Century Conference." The conference, which was held from June 17-21 at Hofstra University, on Long Island, N.Y., featured numerous educational seminars and keynote presentations by renowned experts in the field of universal design. Sponsors included *Universal Design Newsletter*, the Adaptive Environments Center, the Center for Universal Design, Eastern Michigan University and Hofstra University.

Part I of this series will focus on the plenary presentation by the late Ron Mace. Subsequent feature articles in *Universal Design Newsletter* will highlight plenary presentations by:

- John Scott, AIA, who discussed universal design being implemented by Disney.

- Cynthia Leibrock, ASID, who described housing innovations for the disabled and older population.

- A panel of experts, who explored the roots of universal design and where it is heading.

- A representative from Bell Atlantic, who explained how the telecommunications industry is incorporating the principles of universal design into product development and service.

## Ron Mace: A Pioneer in Universal Design

*Editor's note: Ron Mace, a nationally recognized architect, product designer and authority on universal design, passed away shortly after the conference (see article on Page 1). The following are highlights from his presentation at the conference.*

What is universal design? Unlike barrier-free design, which is predominantly a disability-focused movement, universal design broadly defines the user. Its focus is not on people with disabilities, but on people in general. Universal design tries to en-

courage attractive, marketable products that can be used by everyone.

When I went through architecture school, there was never a mention of anything other than basic human factors for able-bodied, six-foot adult males. We didn't get any specific education or training about designing for people who didn't fit within this particular category. Now, with the support of the National Institute on Disability and Rehabilitation Research, the Adaptive Environments Center and others, we have started to infuse the concept of universality into design education.

What's the difference between universal design and the ADA [Americans with Disabilities Act]? A hotel I was in not too long ago was in compliance with the ADA. It met with the letter of the law. However, all of the rooms were left-handed. The ADA doesn't say that rooms have to be designed both ways. So the hotel was in compliance, but it wasn't universally usable. I couldn't stay in that hotel because I can't use a left-handed room. It's that kind of subtleness that universal design can address, should address and does address.

I've never seen a building that is universally usable. I don't know if it's possible to create one. It's not that there is a weakness in the term. We use that term because it's the most descriptive of what the goal is—something people can afford and live with.

Sometimes the placement of an item makes the difference. For example, the ADA mandates offset controls for bathtubs, showers and other fixtures. How hard would it be to move them over so they're easier to reach and more universally usable?

Sometimes it's the size of something. My favorite example is the wide, so-called handicapped toilet stall that's mandated under the ADA. To me, it's a nice example of making something larger so that it can be used by more people. I've seen people take their baby carriages in the stall with them. What else can you do with your child when you go into a toilet stall? You certainly don't want to park the child out in the bathroom. Others take their luggage into the big stall. It truly is a more universally usable stall that benefits everybody.

Sometimes it's the way that something is designed. Take the home thermostat. Most people complain about their thermostat. They can't see it. It's in a dark place. It's hard to understand. They don't even use it. We took a typical thermostat and made it look like a big button telephone. It speaks to you, saying, "heat on, cool on." When you press the "up"

**"Universal design tries to encourage attractive, marketable products that can be used by everyone."**

—Ron Mace



The "Designing for the 21<sup>st</sup> Century Conference" attracted universal design experts from around the world.

## Design Conference, from page 4

button, it counts up for you, “72, 73, 74.” When you let go, it repeats where you left it. It has a remote control for those who can’t reach it up on the wall. I think it responds to most of the things with regard to universal design.

We need to have more cross-fertilization of products. Years ago, I bought a listening system for my mother. It was a special assistive technology device for her television enabling her to get wireless signals and adjust her own volume. Fifteen years ago, it was \$700. Today, you can buy one for about \$69. It’s the same product that came out as an assistive

technology device and then moved over and became a consumer product. We need more of that.

Recently, we’ve been making a lot of progress. Universal design is growing and expanding, and we’re all learning from each other in a wonderful way. This conference, for example, has exceeded our expectations.

Some exciting things are happening in the field. The National Association of Home Builders is building, planning and designing a model home for its show next year. It will be a modular, universal, upscale home. I think this is a real step forward in getting universal design out to where it needs to be—in the business world. 

## Students' Projects Honored at 21st Design Conference

“Students can teach the teachers, and users can teach the designers. We are all truly students of universal design,” said 21st Design Conference Chair Elaine Ostroff, founding director of the Adaptive Environments Center.

To that end, four student design projects received top honors as quality examples of universal design in the first-ever Student Design Competition. Sponsored by the American Association of Retired People, the awards were presented to students at the “Designing for the 21st Century Conference.”

An international jury chose from among 27 semifinalists (from a field of 47 entries) that were submitted by students from around the world. Each project represented a proposal for creating a sense of community in the 21st Century in which diverse people could interact with each other through the practice of universal design.

The four winning entries demonstrated: (1) the integration of the principles of universal design; (2) a clear and engaging graphic presentation; and (3) the development of the design concept that has the potential to positively impact a range of people.

Following are the award recipients:

**1. Information Gate.** Designed by Brian Vlier, from Western Michigan University, the purpose of this project was to provide a universal design solution for users of a community gathering place to send/retrieve messages. In essence, an elaborate electronic messaging center would serve as a “virtual meeting place” for the community.

**2. Universal Public Access Machine.** Designed by Donald Buffoni, from North Carolina State University, this project, similar to an ATM machine, would be adaptable to many uses, from banking and purchasing tickets for cultural events, to renewing a driver’s license. Smart card technology would enable users to adjust certain variables, such as con-

sole height, screen brightness/contrast, and audio feedback to suit their preferences and physical needs.

**3. Transit Shelter.** Designed by Craig LaCombe and Vincent Novak, from Western Michigan University, the goal of this project was to evaluate, understand and correct the problems encountered when using public transportation. With the assistance of an information kiosk, users could travel throughout a city regardless of their age, physical abilities or language barriers. They could reach their destinations by retrieving data through voice activation, Braille, keyboard, touch screens and other methods.

**4. Reweaving the Residential Fabric.** This project was designed by Praschant Gaba, Sophie Robitaille, Todd Matthes and Jason Wilkinson, from the University of Oregon. The goal was to create a neighborhood that would provide many local services to all residents, regardless of their ability, gender, income, race, culture or life circumstance.

According to the late Ron Mace, lead juror of the competition, “I think this is an important aspect of any conference on universal design—to be able to see the creativity and commitment of those who will be leading us in the future.” 



Ron Mace (right) and AARP Sponsor Leon Harper (third from right) congratulate some of the student design competition participants.

*“Universal design is growing and expanding, and we’re all learning from each other in a wonderful way.”*

—Ron Mace

# Increase Your Shopping Mobility

*“Shopmobility:” Taking Charge of Your Life*

By Ishi Masaaki Shiraishi

It is said that there are about 80 million people with reduced mobility in the European Union, which has a population of some 370 million. The 21<sup>st</sup> Century will likely see that number increase, as more people become dependent on canes, walkers and wheelchairs to get around. When our mobility is reduced, our daily lives change significantly and our world shrinks. A research study in England found that people who use canes need to rest every 55 yards (50 meters), and that wheelchair users need to rest every 165 yards (150 meters). Yet when it comes to walking around a vast shopping mall, even able-bodied people need to rest from time to time.

If you were to visit England, however, you wouldn't have to worry. That's because England has

a “Shopmobility” program. In the shopping malls/car parks in town centers, shoppers have access to devices such as scooters and power chairs; either free of charge or for a very nominal rental fee. Through the Shopmobility program office, people can rent the equipment that they need, go anywhere

in town, shop to their hearts' content, and return the equipment at the end of the day.

Started in 1979, Shopmobility continues to spread throughout England, with 204 locations at the end of last year.

**Barrier-Free/Universal Design and Increased Business.** A Shopmobility program implemented at a top-notch supermarket chain in Japan has proved that shoppers with greater mobility stay in the store three times longer than other customers. Needless to say, their average number of purchases was higher than others, as well. Although a similar study has not yet been performed in England, businesses believe that Shopmobility users are a promising new market niche. As a result, many store owners are improving their environments voluntarily, to make them more accessible.

**Improved Quality of Life.** A middle-aged woman in a wheelchair says that she used to give her shopping list to her husband and wait in the car in the parking lot while he purchased the items on her list. Now, they can shop together. She can feel, touch, smell, weigh, compare and then decide on her own what to purchase. Shopmobility has given her freedom of choice and independence.

**How Does the Program Work?** Usually, shopping malls provide complimentary office spaces to the Shopmobility staff, and businesses in town make donations, enabling staff to purchase the necessary equipment.

The scooters and power chairs carry the names of the donors. The staff is mostly composed of volunteers, including young students. One or two staff people also are hired, and their salaries are paid by local governments.

**Shopmobility gives people freedom of choice and greater independence.**



A shopmobility user enjoys the retail experience with friends and family.

See Shopping Mobility, page 9

## Universal Design Honors & Awards

Honors and awards were bestowed to the following at the “Designing for the 21<sup>st</sup> Century Conference.”

- The National Endowment for the Arts, for its leadership in promoting universal design with both the federal government and private organizations.
- The National Institute on Disability and Rehabilitation Research, for funding research projects on housing to meet the needs of people with disabilities and for encouraging manufacturers to adopt universal design practices.
- The U.S. Department of Justice, Disability Rights Section, for recognizing the link between universal design and the ADA, and for supporting universal design education as part of its technical assistance programs.
- The NEC Foundation of America, for being the first corporate foundation to support universal design in education and in media technology.
- An Award of Recognition and Appreciation was given to Elaine Ostroff, chair of the “Designing for the 21<sup>st</sup> Century Conference,” honoring her commitment to furthering universal design through educational programs and advocacy.



## Designing for People of All Ages and Abilities

This new, heavily illustrated publication, *The Universal Design File: Designing for People of All Ages and Abilities*, teaches students and professionals that making buildings, homes, products and open spaces usable to everyone is good business, and essential to enhance the well being and quality of life of people, regardless of their disability or their circumstance.

Co-authored by Molly Follette Story, James Mueller and the late Ron Mace and published by the Center for Universal Design, it states that universal design should be natural and barely noticeable to people going about their daily lives. To that end, the authors cite examples of universally designed structures, including wider subway fare gates, large-print signs and campgrounds in national forests that everyone can use.

In a breezy, conversational style, the authors present a history of universal design and an overview of disability rights legislation. The spectrum of human abilities is clearly laid out, showing changes that may occur in cognition, vision, hearing, speech and physical functions.

The seven principles of universal design are explained and illustrated by photographs, as well as case studies. These seven principles are as follows: 1) equitable use; 2) flexibility in use; 3) simple and intuitive use; 4) perceptible information; 5) tolerance for error; 6) low physical effort, and 7) size and space for approach and use. It concludes by providing a list of universal design resources.

It was developed as a result of the center's recent demonstration project, "Studies to Further the Development of Universal Design," which was funded by the National Institute on Disability and Rehabilitation Research. To order a copy, contact the Center for Universal Design at 800.647.6777 (v/tty). Or, you can download a copy by accessing the center's web site, [www.design.ncsu.edu/cud](http://www.design.ncsu.edu/cud), where it is presented in Adobe Acrobat PDF format.

## Proceedings: Designing for the 21st Century Conference

The Center for Universal Design, School of Design has published the proceedings that was distributed at the "Designing for the 21<sup>st</sup> Century International Conference." The conference was held at Hofstra University (Long Island) from June 17-21, 1998.

The proceedings were edited by Jan Reagan and Larry Trachtman and include presenters' papers, with numerous examples of universal design in the

fields of research, education, design practices and business applications. Projects highlighted in this document include the building of an accessible home under tight budget constraints, an accessible garden, universally designed bathrooms, museums and retail spaces, acoustical considerations in universal design, and much more.

This 383-page book looks intimidating, but its scholarly text is printed in 12-point type and double-spaced for easy reading. Photographs, diagrams and charts are included, along with the names and contact information of all of the presenters.

*Universal Design Newsletter* co-sponsored this five-day conference, which brought together universal design professionals from the United States, Europe, Asia and Australia to share universal design research and successes. To order a copy, call 919.515.3082 (v/tty).

## New ADAAG Manual

The Architectural and Transportation Barriers Compliance Board (Access Board) has published a technical manual explaining the intent of the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

The manual uses diagrams and text to give detailed data about various aspects of the ADAAG criteria, including: accessible routes, space allowances and reach ranges, protruding objects, stairs, elevators, entrances, ramps, restrooms, signage, alarms, detectable warnings, telephones, fixed seating and tables, ATM machines and dressing rooms. Restaurants, cafeterias, medical care facilities, businesses, libraries and lodging also are addressed.

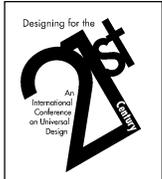
The titles of the ADA and covered facilities are explained, and the phone numbers of the government agencies with oversight responsibility are included. To order, contact the Access Board at 202.272.5434; tty: 202.272.5449. 



**"Universal design should be natural and barely noticeable to people going about their daily lives."**

—The Universal Design File

For more updates on the "Designing for the 21st Century: An International Conference on Universal Design of Information, Products and Environments," look for the January 1999 issue of *Universal Design Newsletter*.





**? Problem:** How does a cash transaction counter hide the equipment and clutter, yet still provide a 36-inch-high writing surface for customers?

**Tip:** The ticket counters at the new Reagan National Airport in Washington, D.C. include hinged writing surfaces that fold into the face of the counter when not in use.

**? Problem:** Pregnant women experience significant limitations in their use of the environment, yet the temporary nature of their pregnancy normally restricts them from qualifying for the use of accessible parking stalls near the entry to stores and other places of business.



**Tip:** The designers of a new suburban retail mall in Oviedo, Fla. have reserved additional parking spaces near the accessible parking spaces to accommodate this significant market segment. 

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## Ron Mace, from page 1

Mace not only changed the way that buildings and products are designed, he changed the way that architects and others think about access and design for people with disabilities.

Ruth Lusher, another friend and colleague, said: "Ron demystified accessible design, helping designers and others see that accessibility is reasonable, rational and not all that difficult to achieve. By his very presence, his great abilities and through his graphic depictions of people in slides, publications and videos, he helped designers and others see people with disabilities—even those with severe disabilities, like Ron himself—as real people who have the same hopes, dreams and ambitions as others."

As Jim Bostrom, who worked with Mace, liked to say, "Ron put a face on accessibility."

Born in Jersey City, N.J., in 1941, Mace contracted polio at the age of nine. He grew up in Winston-Salem, N.C., graduating from the School of Design at North Carolina State University in 1966 with a bachelor's degree in architecture. After four years of practicing architecture, Mace became involved in producing the first access building code for the nation. This code, which became mandatory in North Carolina in 1973, served as a model for other states.

Mace's pioneering work in accessible design contributed important elements to the passage of such national legislation as the Fair Housing Amendments Act of 1988 and the Americans with Disabilities Act of 1990. Both serve as important laws in prohibiting discrimination against people with disabilities.

Mace was president of Barrier Free Environments, Inc. and a research professor in the Architecture Department at the School of Design at North Carolina State University. In 1989, he established the feder-

ally funded Center for Accessible Housing, later renamed the Center for Universal Design, at North Carolina State University. He was a fellow of the American Institute of Architects and received the Distinguished Service Award from the President of the United States in 1992 for promoting the dignity, equality, independence and employment of people with disabilities.

At the June 1998 "Designing for the 21st Century Conference," co-sponsor Mace felt a true sense of progress and accomplishment. As Ostroff observed, "Ron was beaming with pleasure. He was thrilled with the outpouring of energy and commitment, and that people from all over the world were talking about how they were trying to, and often succeeding at, creating universal design. He was so happy."

Those who knew Mace had a great respect for him, considering him to be a gentle, generous friend and mentor. According to friends and colleagues, he was an inspired, driven and spirited advocate of universal design and an experienced practitioner.

The world is a better place because Mace lived in it. He leaves behind a national and international network of people with and without disabilities to carry on his critical work. His greatest wish would probably be for all of us to honor his memory by making his dream of universal design a reality and a common design practice.

Lusher put it very succinctly by stating that when we lost Mace, we lost a "national treasure."

*June Isaacson Kailes is a disability policy consultant. Contributions to further Ron's vision for the future of universal design may be made to the Ronald L. Mace Memorial Fund, c/o The Center for Universal Design, Box 8613, North Carolina State University, Raleigh, NC 27695-8613.* 

**PRODUCTS**

**Slip-Resistant Safety Flooring**

Altro's safety flooring is an impact-absorbing and slip-resistant material designed for use in a wide variety of commercial, institutional, and industrial settings.



The flooring looks smooth, but when compressed under foot, abrasive particles of aluminum oxide, silicon carbide and/or quartz protrude from the surface. Silicon carbide grains on the surface provide initial traction, and the aluminum oxide grains are distributed throughout the thickness of the floor to ensure slip-resistance.

**Visually Accessible Computer Text**

Bitstream's Tiresias Screenfont was designed specifically to make the text displayed on a computer screen more accessible to individuals with visual disabilities. Characters that are easily confused have been redesigned to ensure that the differences between them are evident. For example, the number "1," the lowercase "L" and the lowercase "I" all have characteristics that differentiate one from the other.

Numerous factors were taken into consideration, including character shapes, the relative weight/thickness of character shapes and inter-character spacing and aspect ratios.

**Shopping Mobility, from page 6**

The National Federation of Shopmobility assists its members by making it less expensive to purchase scooters, mobility aids, batteries, insurance and office equipment.

Shopmobility is now in its second phase of expansion. Japan has been conducting a number of trials since 1996, and will implement a permanent "Townmobility" program this year. More countries are expected to follow suit as they prepare for the United Nations International Year of Older Persons in 1999.



Ishi Masaaki Shiraishi

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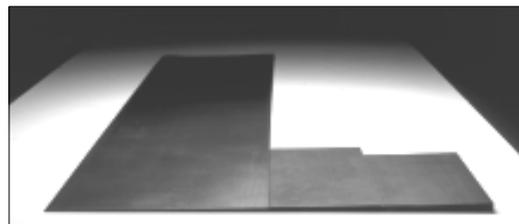
**Non-Slip Floor Coverings**

Grip Rock® and Super G non-slip floor coverings are available from Matrix Engineering for areas where grease and wetness are prevalent.



Available in mats from four to 35 inches long, and three feet wide, these products are manufactured without backing so that they can be glued directly to the existing floor. The mats have construction-grade fiberglass for tear strength and flatness, and a tacky urethane coating on the bottom for easy adhesion. The top is coated with polyurethane embedded with ceramic beads and garnet for slip resistance.

**Subfloor Leveler System**



The Johnsonite® subfloor leveler system is designed for use in areas where floors appear level, but actually transition slightly. The system offers six profiles that can be installed over the subfloor before the flooring is laid.

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

## ADAAG, from page 1

**ANSI A117.1.** The CABO/ANSI A117.1 1998 edition was formally approved by ANSI in February 1998. During technical revision of the standard, the A117 Committee took extensive steps to harmonize the new A117 edition with the ADAAG review recommendations, resulting in documents that contain nearly identical technical requirements.

Publication of the A117.1 standard has been delayed to incorporate new figures developed by the Access Board to complement the pending new ADAAG. The A117.1 standard is available from the International Code Council (ICC). Call ICC at 703.931.4533 for a copy.

**International Building Code (IBC).** The IBC is the new model code being developed by the ICC [an umbrella organization consisting of the Building Officials and Code Administrators (BOCA), the International Conference of Building Officials (ICBO) and the Southern Building Code Congress International (SBCCI)]. The IBC was drafted using the ADAAG review recommendations and the 1998 A117.1 standard as the basis for accessibility provisions. Proposals to revise the final draft of the IBC are due in mid-October, with final hearings scheduled for March 1999. Final voting on the IBC will occur at a joint meeting of BOCA, ICBO and SBCCI in September 1999; the first edition of the IBC should be available by spring of 2000.

**BOCA National Building Code.** An extensive package of code change proposals was submitted to update the BOCA code to be consistent with the technical provisions of the 1998 A117.1 standard and the scoping provisions of the *ADAAG Review Report*. All 35 proposals were approved. Therefore, the 1999 edition, set to be published by spring 1999, will contain new accessibility provisions.

**SBCCI Standard Building Code.** The code changes also were submitted to the SBCCI code change process, where they were accepted in total. Under the typical three-year model code publication schedule, the codes would not be published again until 2000. However, because of the transition to the international codes, and with the IBC scheduled for publication in 2000, SBCCI members will vote to cancel the 1999 code change cycle for the standard codes, and publish a 1999 edition as the last edition of the code. This action, which is expected to pass, would result in an updated Standard Building Code that would be available by spring of 1999.

**Federal Accessibility Guidelines.** The U.S. Access Board has used the ADAAG review recommendations as the basis for a just-completed revision process to update ADAAG. The board has used this as an opportunity to incorporate other federal ac-

cessibility standards into the new ADAAG. In effect, it is creating a "Super ADAAG" that will replace UFAS, for use under Title II of the ADA, and separate rules for children's environments/recreational facilities. Expanding the scope of the revision to incorporate these other federal rules lengthened the revision process.

The Access Board is anticipating the publication of a notice of proposed rulemaking (NPRM) in the *Federal Register* in spring of 1999. There will be a 90-day public comment period once published, and it is likely that there will be public hearings.

The new ADAAG will need to be adopted by the U.S. Department of Justice (DOJ) as the new Standards for Accessible Design under the ADA before they become an official part of the ADA. At this time, the DOJ has not announced any specific schedule for its NPRM.

So why should anyone other than an accessibility junkie care about this now?

The importance of this stems from the fact that the next generation includes many new/revised requirements. Projects in early design stages should be compared to the forthcoming provisions to ensure that no major problems are being built in. The new provisions also provide more flexibility in many areas, such as signage and maneuvering space. In many cases, a new project could incorporate this flexibility, while still complying with current regulations.

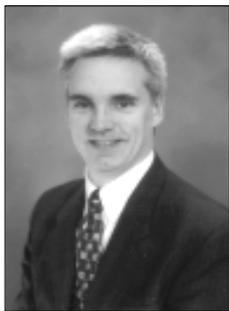
**More Work Remains.** The efforts to incorporate the "next generation" of accessibility into the model codes have remained faithful to the *ADAAG Review Report*. It is likely that the Access Board has changed some ADAAG review recommendations in favor of current ADAAG provisions. It is also likely that the Board has revised some provisions to something other than current ADAAG or ADAAG review recommendations. Additional work will be needed to either revise the model codes further, or to convince the Board to revise its NPRM, so that the harmonization between federal and state/local accessibility regulations can become a reality.

**Get a Running Start.** When the Access Board publishes its NPRM next year, you will have 90 days to review it and submit public comments. So clear off a bookshelf and get ready for the forthcoming next wave! And, if you don't already have it, make sure that the *ADAAG Review Report* is the first thing on your shelf.

*Lawrence G. Perry, AIA, is an architect and codes consultant in Silver Spring, Md. He represents BOMA International at each of the model codes and on the A117 Committee. He also served on the ADAAG Review Committee.* ■

**"When the Access Board publishes its NPRM next year, you will have 90 days to review it and submit public comments."**

—Larry Perry, AIA







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

**Oct. 7-9: Disability & Diversity**, McLean, Va. The National Business & Disability Council will present the 21st Annual National Conference of the former Industry Labor Council. Sessions will discuss strategies for including people with disabilities in the workplace. For more information, call 516.465.2046 (v) or 516.742.5839 (tty) or check out [www.business-disability.com](http://www.business-disability.com).

**Oct. 26-28: Access to Outdoor Developed Areas**, a training course sponsored by the National Center on Accessibility, will be held in Martinsville, Ind. The course will discuss the most current information on the evolving accessibility guidelines as they relate to outdoor developed areas for people with disabilities. For more information, check out the NCA website at [www.Indiana.edu/~nca](http://www.Indiana.edu/~nca) or call 800.424.1877 (v/tty).

**Nov. 17 - March 14, 1999: Unlimited by Design**, New York City. The Cooper Hewitt Museum is producing the first major exhibition of products, services and environments designed to meet the needs of all people throughout their lifespans. For more information, contact the Cooper Hewitt at 212.849.8300, or <http://www.si.edu/ndm/>.

**Nov. 18: Hotel & Motel Accessibility**, Orlando Fla. Sponsored by the Florida Hotel Association and the Florida Department of Community Affairs, the conference will discuss the differences between the ADA

and Florida accessibility requirements for hotels. For more information, contact 850.487-3423, ext. 135.

**Nov. 30-Dec. 4: International Workshop on Universal Design**, to be held in Yokohama, Japan. Sponsored by the Building Research Institute, discussions will cover product/dwelling/building design for transportation and the environment. Socio-political discussions will cover topics such as cultural dependence/independence of universal design. For more information, fax +81.298.64.2989 or send an e-mail to [skose@kenken.go.jp](mailto:skose@kenken.go.jp).

**Dec. 7-11: Universal Design**. A two-track training course geared toward designers and interpretive specialists is being sponsored by the National Center on Accessibility. It will be held in Houston, Texas. General sessions will explore the principles of universal design and separate architectural and interpretive tracks will provide hands on experience and in-depth discussions of pertinent topics for each group. For more information, check out the NCA website at [www.Indiana.edu/~nca](http://www.Indiana.edu/~nca) or call 800.424.1877 (v/tty).

**July 12-16, 1999: The Vision '99 International Conference on Low Vision** will be held in New York City. It is being sponsored by the Lighthouse Inc. The call for papers is due Nov 30, 1998. For more information, contact the Lighthouse Inc. at 212.821.9482 (v) or via e-mail at [vision99@lighthouse.org](mailto:vision99@lighthouse.org).

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