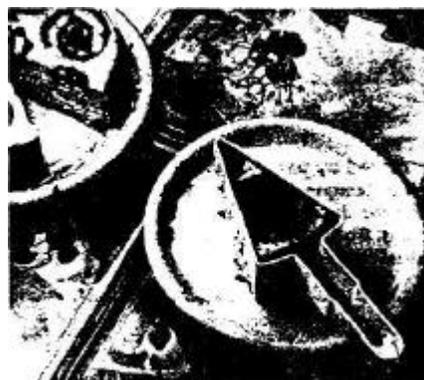


On the
Eve of

UNIVERSAL DESIGN



Homes and products that meet everyone's special needs.



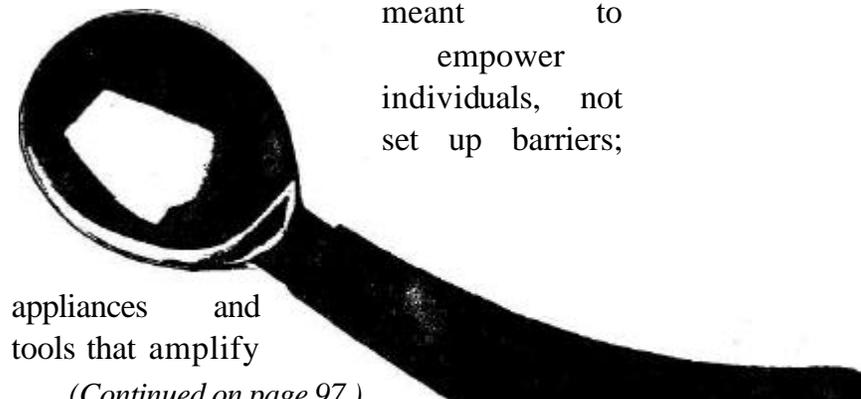
W

hen you were 5 years old, it was a challenge to turn on the hot water without getting scalded—if you could reach the sink at all. At 75, if arthritis doesn't keep you from turning the knob, you're still burned because your sensitivity to temperature has diminished. As

children, we did not fit in a world designed for adults. As aging adults, we do not fit in a world designed for younger people. And if we happen to face additional physical challenges, we are disabled by a world designed only for the fittest. Fortunately, inventive products and home plans are beginning to bridge the gap.

From adjustable-height sinks to faucets that sense your hands underneath and flow at a preset temperature, innovative design is slowly creeping into the marketplace. It comes in

many forms: homes that are meant to empower individuals, not set up barriers;

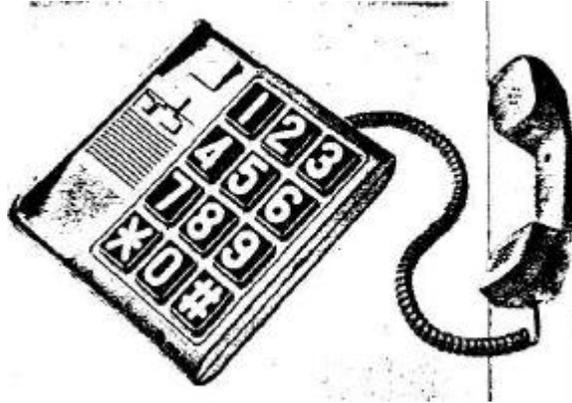


appliances and tools that amplify

(Continued on page 97.)

Upper right: Leaf scoops (see page 100). Above, top: Universal design in a remodeled kitchen (see page 97). Above: Serving with this cake cutter is a piece of cake.

The left-handed Amefa spoon (see page 98).

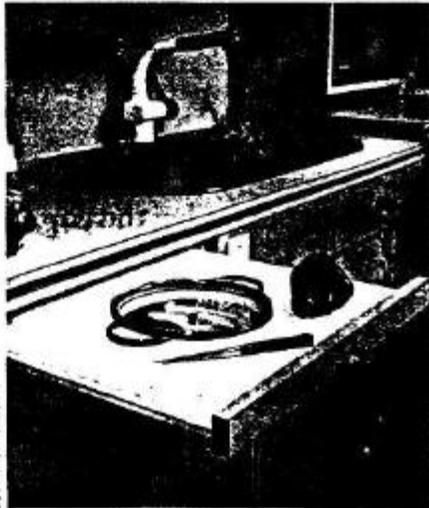


abilities rather than handicapping them. Universal design strives to make every place and product work better for everybody. It brings great ideas home.

On the
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**UNIVERSAL
DESIGN**



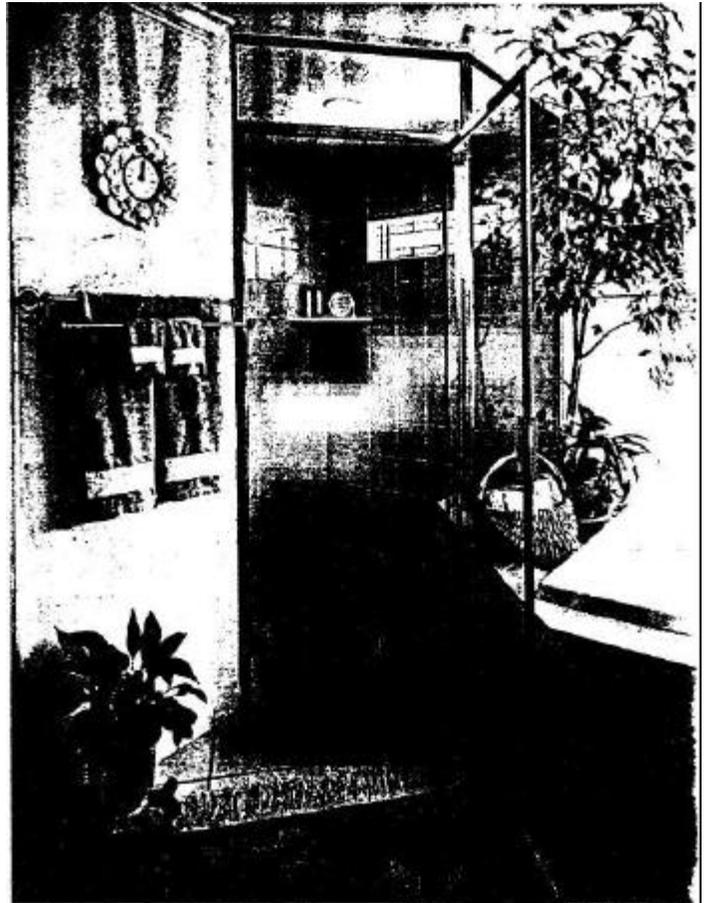
Get a grip on it with a hot design statement for the bathroom. Textured grab bars come in a variety of colors and provide safety stylishly.



JEFF MINAKAWA

A pull-out Corian cutting board features an opening to insert and firmly hold a bowl in Maneuverability's kitchen. The faucet has single-lever temperature and water pressure control.

E. K. WALLER



PAUL WESTER

This oversize shower is shared by parents and their teenaged son, a wheelchair rider. Interior designer Gay Fly had the roll-in shower made with a sloped floor for drainage, eliminating the traditional curb to provide easy access. Both wall-mounted and hand-held fixtures provide for individual showering styles.

WHO NEEDS UNIVERSAL DESIGN?

Hard-working, ergonomically designed spaces and products benefit everyone; however, universal design is more than just a convenience for many Americans. Out of the 243.4 million people in the United States:

- 42.6 million are 11 years old or younger.
- 26 million are 65 or older. More than 40 percent of this older population say they experience problems preparing meals, using the telephone or doing housework.
- Almost 16 million are visually impaired or blind.
- 21 million are hearing impaired or deaf.
- 2.4 million have a speech impediment.
- 3.5 million Americans report that their activities are limited owing to chronic mental or nervous disorders. Of this group, 407,000 suffer from Senility.
- More than 14 percent of the population—32.5 million people—report that chronic health conditions limit their activities.

—Catherine L. Gottlieb

Home is where we have the most control over our physical environment. If we don't like the orange bathroom, we paint it. When we're hot, we turn down the thermostat. If we enjoy making pastries and candies, we put in a marble slab. While we are changing and remodeling homes to fit our needs like never before, most of us still put up with a lot of inconvenience. Our showerheads are mounted too low or too high, kitchen cupboards are unreachable, light switches are inaccessible and there's a narrow door frame or a poorly positioned counter that we constantly sideswipe. We have to work harder because our houses don't work hard enough.

Universal design represents a new approach for home builders and remodelers while challenging inventors, architects and interior designers to rethink the old rules. It calls for

creativity and a sensitivity to individual needs in the search for better answers to ever-present problems.

Many HOME readers are already putting universal design ideas to work. In Tennessee, Walt Buescher designed his own retirement house with a deck, widened doorways and lowered windows to take in dramatic views of the Smoky Mountains while making painting and cleaning easier. Walt, in his 70s, is still active and healthy; but by building in wheelchair-accessible living spaces and an accessory apartment for a possible future caregiver, he staves off moving or remodeling if he or his wife face medical problems as they grow older.

"If you build your dream house at 55, you'd better think about what you want to be doing in it when you're 70," advises designer and gerontologist Pat Moore, who lived as an 85-year-old (for more of her ideas see page 104).

(Continued on page 99.)

CREATIVE KITCHEN REMODEL

For 18 years Ron Branam struggled even to enter his West Des Moines kitchen.

At one end, a narrow doorway blocked his wheelchair; after he had traveled through the living room to the other" end, Ron was thwarted by the kitchen's high cupboards and inappropriate design. Before the kitchen was remodeled, he couldn't pop an ice cube into a cup—both the cabinets and freezer were out of reach. "I would have to remember to put a glass on the counter before I left the house," says his wife Sandy.

The Branams took their remodeling needs to architectural designer Ann Patterson, and the result is comfortable, attractive universal design.

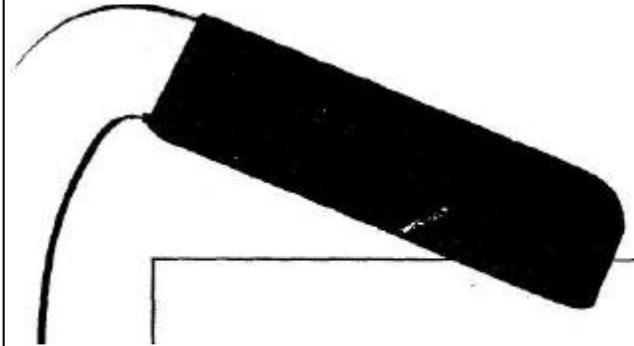
Now Ron can grill at his peninsula work area while Sandy cooks at the higher counter. The KitchenAid refrigerator's narrow doors and bottom freezer let Ron get drinks and ice with ease, while the cabinet above his work area holds dishes within reach. The bar sink features single-lever control for both water pressure and temperature. A microwave is set low—beneath the television and oven—and has a pull-out shelf underneath.



The Branams' kitchen (above) has a microwave (left) set low for wheelchair accessibility. Ron (far left) has knee clearance under the 29-inch-tall peninsula.

During the day, while Ron is on the job at the county courthouse, Sandy uses the peninsula as a desk for her home-based dessert business.

RESOURCES FOR SPECIAL NEEDS



Until universal design erases barriers and truly provides products and spaces for everyone, people with special needs must search for devices that can make the difference between dependent and Independent living.

The National Rehabilitation Information Center (NARIC) offers help. Funded by the National Institute on Disability and Rehabilitation Research, part of the U.S. Department of Education, NARIC has access to a vast library and to computer data bases listing thousands of aids and devices for anyone with a disability.

NARICs Internal data base, REHABDATA, is a computerized listing of more than 13,000 references. In addition, information from ABLEDATA, a data base containing thousands of listings about products and manufacturers, is accessible through the center.

Professionals from NARICs Information team are available by telephone for consultations from 8 a.m. to 8 p.m. Eastern time, Monday through Friday. They charge \$ 10 for the first 100 bibliographic or product citations and \$5 for each additional 100 citations.

For more information about NARIC, contact the National Rehabilitation Information Center at 8455 Colesville Rd., Silver Spring, MD 20910-3319; 1-800-34-NARIC or (301) 588-9284.

—E.S.R.

E. E. WALLER



With thick handles for sturdy gripping, Amefa's Select Special Cutlery is easy to maneuver. Knives cut with a rocking motion, minimizing wrist strain.



No need to touch the Niagara Mix faucet. Electronically controlled sensors turn on the water at a preset temperature when your hands are under the tap.

COURTESY SIMROSS ENTERPRISES, INC.



The convertibility of Torrice's modular furniture allows children to change and rearrange their living space.

DESIGN FOR ALL

"All people, able or disabled, young or old, should have the opportunity to fully express themselves in their personal environment," says interior designer Tony Torrice, whose award-winning interiors for children emphasize

universal design.

Convertibility, in the form of movable furniture and reversible fabrics, is part of his overall scheme. "Convertibility provides children with a chance to change and rearrange their living space as they grow up and out of things," he explains. The movable modular

unit shown above was part of Torrice's design for 10-year-old Scott, who is deaf. The convertible chest's rolltop opens to reveal Scott's computer work area.

Although Torrice began his career by creating universal design for children, his practice has evolved to encompass others with special needs, including the handicapped and elderly. "As people age, they are confronted with frustrating problems that can turn their own homes into prisons," he says. "Fixtures should not be unmanageable for an individual stricken with rheumatoid arthritis. Counter heights should be adjustable. We need designs that account for a person living alone and that provide emotional and physi-

cal stability in one's home.

"By building houses flexible enough to accommodate clients' changing needs, we will be able to adapt their environments so that they can live independently as they grow older."

Universal design, according to Torrice, provides spaces in which people of all abilities can function and feel comfortable. Through his seminars for professionals and classes for budding interior designers, he hopes to enlighten others.

"The end user is too often overlooked by design firms," he believes. "We tend to design only for the fast and the affluent. Innovative universal design can give people much more control over their environment."

Preparing for the future propels the Skirvins as they build their retirement home in Seattle. By designing a house within a house, they make it possible to restrict their living to one accessible floor if their future needs demand it. "It will be a place where we can live with artifacts from our grandparents and drawings from our grandchildren," says Elice.

Universal design also benefits the young. Andrea and Dennis Kahn, of North Brunswick, New Jersey, had toy shelves that look like blocks securely mounted on the wall of their son's room. The blocks have handholds that encourage 5-year-old Justin, who has cerebral palsy, to stand and walk. The Kahns had their home designed to meet the needs of both Justin, who uses a scooterboard to get around, and his 8-year-old sister Danielle.

Juliann Walter wanted a stylish but functional home for

MORE THAN A POOL

An appealing sunlit grotto shelters a spa and pool in Loren Greenhill's redwood solarium. His creative arrangement of rocks and shelves acts as steps, enabling Loren to lower himself into the spa from his wheelchair. Swimming in the pool,

which he reaches from the spa by lifting his legs over a tiled shelf, keeps Loren in shape for whitewater rafting and snow skiing in the local Sierra Nevada range with his two sons. "Every time I'm able to do something like swim on my own it gives me

her teenaged son George, who also has cerebral palsy. He cannot walk very far without support, so architect Herschel Parnes used painted steel pipe creatively throughout the house in Kirkland, Washington. The pipe pops up as everything from the necessary handrails to decorative wall sconces and useful pot racks.

Mark Russell's family built a 1,500-square-foot addition full of universal design ideas onto their 200-year-old Cape Cod-style house in West Harwick, Massachusetts. They also remodeled the original house, paying careful attention to its historical character. Narrow Colonial doorways were notched at the bottom to accommodate Mark's wheelchair. "While the adaptations have been essential for my independence, I was pleased to find that the changes didn't mar the home's beauty—in fact, they often enhanced it," says Mark (see his indispensable home on page 102). *(Continued on page 103.)*

a feeling of freedom," says Loren. "The fewer architectural barriers I encounter, the less I feel different—and the more I feel like I can do anything. I relish good design."

The solarium also acts as a heat sink for the house's solar heating system. Fans circu-

late sun-warmed air under a tile floor in the adjoining living room, while solar panels heat water for the pool.

Sliding doors surround the room, permitting Loren access to redwood decks overlooking the mountains in Cool, California.



Loren Greenhill (left) designed a series of natural-looking rocks to give himself easy access to the spa. The solarium (right) acts as a solar collector for the house.

"If you build your dream house at 55, you'd better think about what you want to be doing in it when you're 70," advises Pat Moora

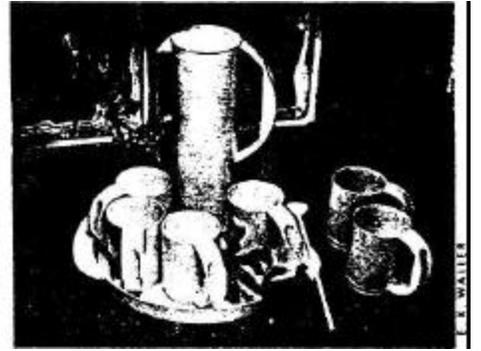




Scooping up and trapping leaves in a breeze is easy with these leaf scoops from Maneuverability; your palms slip under handles on the back.

CULTIVATING UNIVERSALLY

Form and function are one for the designer of Rosti's Formula One set. Sculpted of lightweight plastic for easy handling, the mugs and pitcher look great for entertaining indoors and out.



Planting in containers and raised beds makes any garden easier to maintain. A universally enjoyable garden takes the details a step further:

- Wide paths of cement, wooden decking or similar materials, with a continuous raised edge, help the visually impaired and provide support for wheelchair riders and older people.
- Scented herbs like lavender and bergamot will perfume the air if planted where they will brush against wheels. They can also act as scented markers for the blind.
- Dwarf fruit trees grow to only 4 or 5 feet at maturity, making harvesting fun for gardeners of any age and size. Many dwarf trees grow well in containers.
- Low-maintenance ornamental grasses and succulents fill out areas that are hard to care for.
- A low-hanging trellis of grapes, or of more exotic fruit like kiwis, makes picking easy from a chair.
- Benches around raised beds give a gardener a place to sit while weeding, harvesting —or just reading.

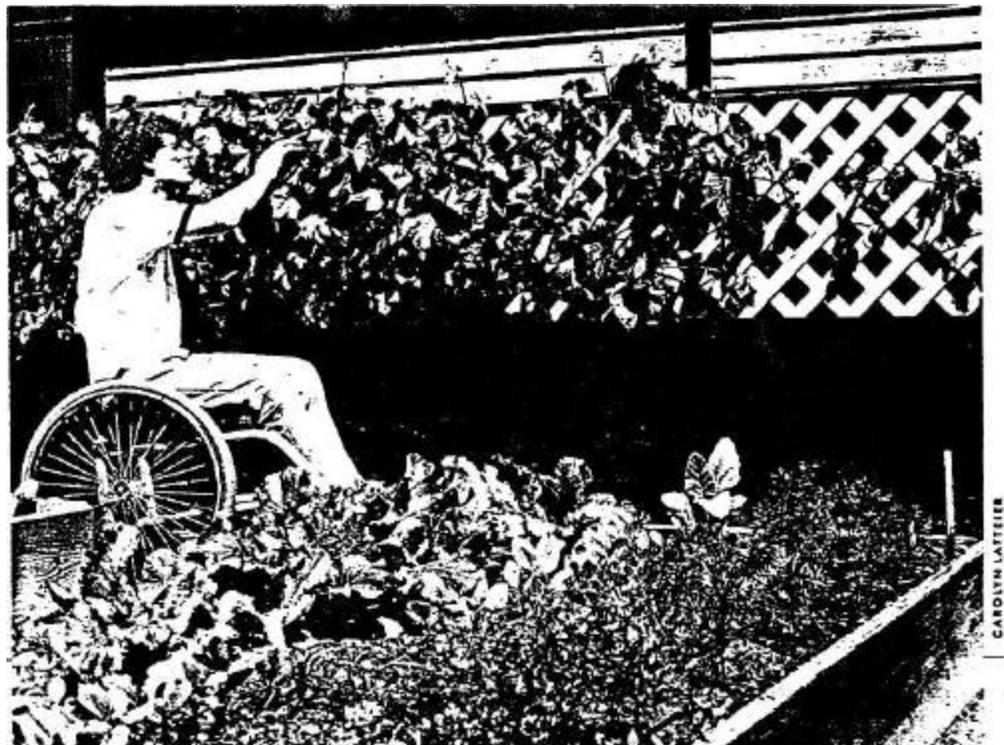
—E. S. R.

ACCESSIBLE GARDENING

Raised beds and espaliered fruit trees make this universally designed garden work for Grant Richardson.

He does the planting, weeding and harvesting in the Seattle-area garden for his friend, garden owner Andy Baker, who is paralyzed below the neck. Cement paths provide sturdy support and have spacious clearance for Andy and Grant's wheelchairs as they travel through the garden.

In this universal garden, Grant Richardson (right) secures a trellis after weeding the raised vegetable bed.

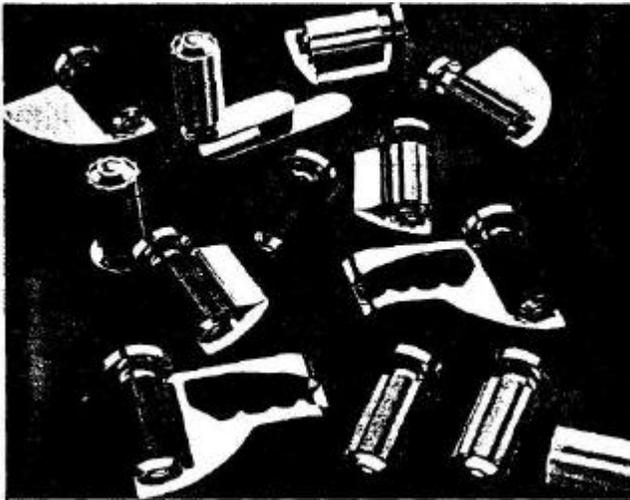




COURTESY OF GEMINI DISTRIBUTORS

Australian-designed, the brass UNIversal All-Directional Shower (above) adjusts 20 inches for a wide range of users.

OPENING DOORS WITH



COURTESY OF VALLI & COLOMBO

STYLE

Universal design does not necessarily provide a single solution for every challenge. The Desipro door handles (above), designed by Attilio Marcolli for Valli & Colombo, use different transformations of the same design to ease door opening for people who face a variety of physical challenges. "It is our view that being disabled should not deprive people of their desires for aesthetically pleasing designs," explains Carlo Valli, president of the company.

After studying various body movements and the abilities needed to open a door, the designer created a set of handles, in a variety of bright colors, that fit any existing door. While each handle is designed for a specific physical challenge, they make opening a door easier for everyone—young or old, short or tall. The various handle grips provide support for arms that lack motor coordination and precision, have impaired strength, are spastic, have only a light grip, or are capable of movement but cannot rotate a handle.

—E.S.R.

Universal design doesn't impose solutions for only the fittest over the needs of the less able. It transcends ability with innovation. It's design that works for everyone.

HIGH TECH OPTIONS

Computers, infrared sensors, voice-recognition programs and talking appliances are all more available and less expensive than ever before—and they are on the cutting edge of universal design.

The common telephone has evolved into a machine that understands your voice, writes notes to you, talks to your friends and goes almost anywhere.

Entrepreneur David Hunt uses the phone to open windows, draw drapes, adjust the heat and turn on lights and appliances at his Southern California home. Smart systems make life easier for everyone, but they are especially important to David, a victim of retinitis pigmentosa who is slowly losing his sight.

Other computer-driven systems like The Home Manager can be programmed to run security checks, control the temperature, manage appliances and turn on lights.

Even at the low end of high tech, universal design abounds. The Big Button Phone (page 95) is easier for everyone to read. AT&T provides it and additional supportive telephone equipment from their Special Needs Center.

Voice-activated, the Freedom Phone from Southwestern Bell (right) stores up to 63 telephone numbers that can be dialed by simple



COURTESY OF SOUTHWESTERN BELL

voice commands: "Call Mary" is as easily done as said. For those unable to physically dial a phone, and for others who cannot remember phone numbers, the Freedom Phone may be a lifesaver.

Computer users have an assortment of both hardware and software to choose from. The IBM National Support Center for Persons with Disabilities arts as a clearinghouse for computer information.

Another source of special programs and equipment is ComputAbility. Their plastic keyboard templates provide support and a resting place for the hands of typists with wayward fingers.

A Personal Emergency Response System (PERS) signals for help from a base station during an emergency. PERS provides independence and quickly summons assistance for victims of heart disease, women with osteoporosis, stroke victims and the frail elderly. A variety of models are now available. See the Buying Guide on page 108 for further information.

—E.S.R.

INDISPENSABLE HOME

At 7 this morning, my alarm taurants neglect. Another went off in an ungodly com-often unnoticed feature is bination of bleeps, buzzes and that the thermostats are clangs. After a series of yawns conveniently placed at my and stretches, I managed to eye level.

clamber from my cozy bed The intricacies of univer- into a hot shower, and sal design and accessibility go eventually found myself facing beyond the usual ramps.

a glass of o.j. and a piece of Consider my bathroom sink. It's shallow and stylishly jellied toast.

No big deal, right? mounted In an overhanging Wrong. Oh, I'm sure my a.m. counter with the drainpipe routine, plus or minus a cup of below angled away from my coffee, is common among incoming knees. Everything millions, but my house is not is within my reach, an Im- Without it, this would all be possibility with most vanities. Seamless vinyl flooring impossible.

Three years ago I found allows free wheeling into my myself In a wheelchair. Since spacious roll-In shower.

that time I have developed a Everyone who has new and higher regard for my searched frantically for a home. While Its special spatula in a friend's kitchen features are hardly noticed by while the eggs burned real- the common eye, to izes why home isn't just the someone on wheels—and t place you park your car at don't mean roller skates—night. In my home I'm Inde- they are obvious.

Take, for example, my structural barriers. In a kitchen table. An antique world of stairs and deep pile trestle, it is extra-high to al- rugs, I know how truly indis- low for chair and leg pensable my home is.

room—a point many res- —Mark Russell



COURTESY OF VILLEROY & BOCH

The "Lift" from Villeroy & Boch adjusts the sink to a range of safe and comfortable heights by simply moving a lever. It is available in 11 colors and works with five models of basins.



From Watercolors, an adjustable showerhead and soap dishes in bright colors suit all sizes of bathers.

Lightweight plastic bowls from Maneuverability pivot on their ring bases to serve the cook.



E. K. WALLER



COURTESY OF FROGG

Well balanced, lightweight and shaped to fit the hand, this prototype iron (left) was created for the elderly by frogdesign.

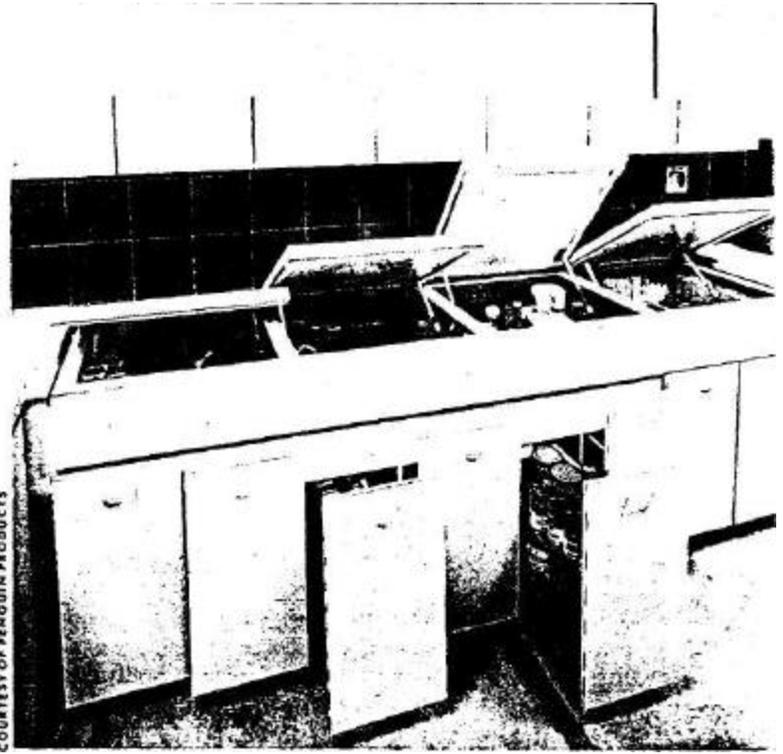
Professionals are also awakening to the power of universal design. The American Society of Interior Designers (ASID) and the National Kitchen and Bath Association (NKBA) both offer seminars and classes full of universal design ideas. "I have quite a few clients who can't see themselves clearly unless they're close to the mirror," says interior designer Gay Fly, a teacher for the NKBA program. "In my bathroom designs, I scoop out the counter in front of the mirror so the client can stand closer. And for better task lighting, I put in another 100 watts for every five years over age 40."

The National Association of Home Builders (NAHB) presented universal design ideas in an adaptable house that was open to the public last summer. Constructed as part of the 1988 Portland, Oregon, "Street of Dreams" project, it was designed with removable base cabinets in the kitchen and bath, lowered light switches, a roll-in shower and a raised whirlpool. While the NAHB adaptable house looks like any other, it works much harder (see Home Plans section).

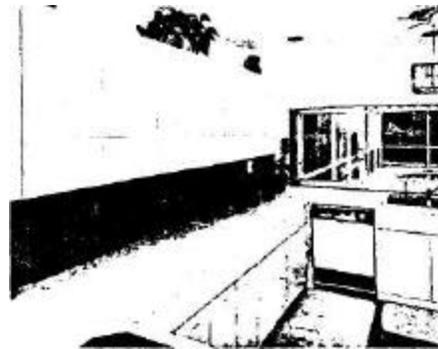
Members of the American Institute of Architects are beginning to strategize an approach to the future with their "Vision 2000" survey. The study identifies a major demographic shift in our aging society, and universal design will become part of the Institute's plan for addressing it.

Working with rehabilitation therapists, architects and other professionals, The Northern Trust Company in Chicago uses universal design ideas to make homes work for clients who are in guardianships administered by the company.

(Continued on page 104.)



COURTESY OF PENGUIN PRODUCTS



Providing extra counter space and ready accessibility, this shallow horizontal refrigerator (shown open above and closed at left) can be installed without the slide-out pantry drawers to allow for wheelchair clearance.



MICHAEL GARLAND

ADJUSTABLE COUNTERS

Accommodating a changing variety of short, tall, sitting, standing, grownup and juvenile cooks is a problem in kitchens with fixed-height counters. The Scandinavian-designed Granberg Interior Mobile kitchen adjusts to the cook. Cupboards and countertops are fastened to a backplate that moves up and down electrically. The counters hold either an electric cooktop or a shallow sink. Cabinets move under the counter on casters, and overhead shelves are fitted with counterweighted, vertically sliding doors for easy access.

More than 14 percent of the U.S. population—32.5 million people—report that chronic health conditions limit their activities.

On the
Eye of
**UNIVERSAL
DESIGN**

Universal design is coming. It may creep into your life as a tiltable mixing bowl or scream at you from the monitor of the newest computer-driven model "smart" house, but it will appear in your own home. While it addresses the special needs of the elderly, physically challenged and young, it provides a new approach to design that goes beyond the accessibility and barrier-free schemes of the past.

Universal design doesn't impose solutions for only the fittest over the needs of the less able. It transcends ability with innovation. It's design that works for everyone.

Produced and written by Elizabeth Schmidt Ringwald



Sliding into this tub is easy when one side is up and out of the way. It glides back down and seals watertight for a comfortable sitting shower, hydromassage or draft-free bath.

mal aging, the youthful Moore lived as an 85-year-old woman periodically for three years. After struggling in a world without universal design, she offers some suggestions for adapting your home to meet age-related changes.

UNIVERSAL DESIGN FOR THE AGING

More than 10 million older Americans have difficulty with daily tasks at home.

Designer and gerontologist Patricia Moore knows this firsthand. Using various



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Patricia Moore (right) discovered the importance of universal design when she periodically "became" an older woman (above): Bandages stiffened her walk, taped fingers simulated arthritis, her ears were blocked and her vision was blurred.

- Vision can become cloudy. Try edging counter and vanity tops with contrasting colors to provide a clearly defined surface.
- Borders and paths on the floor are also useful—ask anyone who has awakened blurry-eyed and slightly confused for a nocturnal trip to the bathroom. Moore suggests laying an attractive contrasting path from bedroom to bath in carpet squares, which can be replaced as they show wear.
- Louvered shutters fight

Making changes today
will improve
tomorrow's quality
of life.



glare problems for sensitive eyes, Moore advises. She also strongly suggests installing effective task lighting.

- "The two biggest problems in American homes are the kitchen and bath," states the designer. Kitchen cabinets should be positioned no higher than the shoulder and no lower than the knee. Non-perishable food can also be stored in decorative containers right on the counter.

- A large pantry and freezer are important when food preparation and grocery shopping become more difficult. "Single-serving frozen dinners may be more cost-effective for older people living alone if they can't finish all the fresh ingredients they'd have to buy to prepare that same meal," Moore explains.

- In the bathroom, textured grab bars are a must. She also suggests using indoor/outdoor carpeting to reduce the chance of slipping and to cushion any falls.

"It is important for us to realize that we are looking into the mirror of the future," Moore concludes. "Making changes today will improve tomorrow's quality of life." —E.S.R.

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- For further information, see *Buying Guide* on page 108.

Buying Guide

Mentioned in Text: American Society of Interior Designers (ASID), 1430 Broadway, New York, NY 10018.

National Kitchen & Bath Association (NKBA), 124 Main St., Hackettstown, NJ 07840. **Gay Fly ASID, Gay Fly Interior Designs,** 4200 Westheimer, Ste. 120, Houston, TX 77027.

For information about the "Street of Dreams" adaptable house, contact the National Association of Home Builders (NAHB), National Housing Center, 15th and M Streets, N.W., Washington, DC 20005.

American Institute of Architects (AIA), Vision 2000 Report, 1735 New York Avenue, N.W., Washington, DC 20006.

The Northern Trust Company, Fifty South La-Salle Street, Chicago, IL 60675.)

(PAGE 104)

Sitting Bath by The Skilcraft Corporation, 528 Hughes Dr., Traverse City, MI 49684.

Patricia A. Moore, Moore & Associates, 280 Chestnut Ridge Road, Montvale, NJ 07645.

Additional resources on universal design or adaptable products include:

Accent on Living Magazine's "Books for Living" are available at Accent Special Publications, P.O. Box 700, Bloomington, IL 61702.

Building Design Requirements For The Physically Handicapped is a helpful booklet by the Eastern Paralyzed Veterans Association, 432 Park Ave. S., New York, NY 10018.

Caring for the Caregivers newsletter is \$10 annually (12 issues) from editor/publisher Barbara Koss, P.O. Box 892, Glenview, IL 60025.

Design For Independent Living: The Environment and Physically Disabled People by Raymond Litcher and Barbara Winslow, University of California Press, 2120 Berkeley Way, Berkeley, CA 94720; 1982.

Housing Interiors for the Disabled and Elderly by Bettyann Raschko, Van Nostrand Reinhold Co., 115 Fifth Ave., New York, NY 10003; 1982.

The U.S. Department of Housing and Urban Development offers information on adaptable housing, assessing housing needs for people with special needs and related issues. **Housing Special Populations: A Resource Guide**, is available from HUD, P.O. Box 280, Germantown, MD 20874.

How To Create Interiors For The Disabled by Jane Randolph Cary, Pantheon Books, div. of Random House, 201 E. 50th St., New York, NY 10022; 1978.

The System by Ronald L. Mace, AIA, Information Development Corporation, 360 St. Alban Court, Winston-Salem, N.C. 27104. Mace, one of the originators of the term "universal design," developed this looseleaf compendium of information on specs and products that are available for disabled people.

The Spinal Network Bookstore publishes **The Total Resource for the Wheelchair Community** and carries a variety of related titles. Spinal Network, P.O. Box 4162, Boulder, CO 80306; (800) 338-5412.

The Adaptive Environments Center is a reference library and design, consulting, advocating and educational agency. Contact the center at 621 Huntington Ave., Boston, MA 02155.

For Canadians, The Barrier-Free Design Centre, 150 Eglinton Ave. E., Ste. 400, Toronto, M4P 1E8, offers literature, consultations and education about accessible and universal design.

Moss Rehabilitation Hospital in Philadelphia offers occupational therapy services and home assessments through the Adaptive Designs for Living service. Moss Rehabilitation Hospital, 12th St. and Tabor Rd., Philadelphia, PA 19141.

Whirlpool Corporation provides free Braille overlays, informational booklets and product instructions

in Braille, large-type and cassette formats. For information contact Whirlpool, Appliance Information Service, 2000 M-63 North, Benton Harbor, MI 49022.

The American Council of the Blind, 1010 Vermont Ave. N.W., Ste. 1100, Washington, DC 20005, (202) 393-3666.

The American Society On Aging, 833 Market St., Ste. 516, San Francisco, CA 94103.

"The Faces of Swedish Design" exhibition features universally designed products from Ergonomi Design Gruppen, an internationally recognized leader in the field. The exhibit is at the IBM Gallery in New York through November 26; from December 13 through January 25, 1989, it is at the Minneapolis College of Art and Design. Contact the Swedish Consulate General, 825 Third Ave., New York, NY 10022.

● UNIVERSAL DESIGN

(PAGE 95)

Leaf Scoops, Amefa Select Special Cutlery and Cake Slicer from Maneuverability Inc., 4015 Ave. U, Brooklyn, NY 11234, (800) 522-1213.

Big Button Phone from AT&T Phone Center Stores, for the location nearest you call (800) 222-3111.

Brenam Kitchen Design by Ann Patterson, City Design, 208 Fourth St., West Des Moines, IA 50265; see the Buying Guide on page 97 for details.

(PAGE 96)

Textured Grab Bar by Normbau Inc., 1040 Westgate Dr., Addison, IL 60101. **Corian Cutting Board and Bowl, Grobe Faucet and Sink** all from Maneuverability Inc., 4015 Ave. U, Brooklyn, NY 11234.

Bathroom Remodel and Shower designed and custom-built by Gay Fly, ASID, Gay Fly Interior Designs, 4200 Westheimer, Ste. 120, Houston, TX 77027.

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Kitchen Design by Ann Patterson, City Design, 208 Fourth St., West Des Moines, IA 50265. **"Newport" Cabinets** by Wood-Mode Cabinetry, 2 Saucer St., Kraemer, PA 17833. **Peninsula Work Area** by Ann Patterson, **Refrigerator and Convection Oven** by KitchenAid Inc., 701 Main St., St. Joseph, MI 49085. **Microwave** by Panasonic Co., One Panasonic Way, Secaucus, NJ 07094. **Dishwasher** by In-Sink-Erator, div. of Emerson Electric Co., 4700 21st St., Racine, WI 53406. **Kitchen Sink Fixtures** by Franke Inc., Kitchen Systems Div., P.O. Box 428, Hatfield, PA 19440. **Bar Sink Fixtures** by Luwa Corp., Bulder Products Div., P.O. Box 16348, Charlotte, NC 28297. **Grill** by Jenn-Air Co., 3035 N. Shadeland Ave., Indianapolis, IN 46226. **Cooktop** by Thermador/Waste King, a Masco Co., 5119 District Blvd., Los Angeles, CA 90040. **Ceiling Fan** from Beverly Hills Fan Co., 12612 Rayner St., North Holly-

wood, CA 91605. **Coffeemaker** by Braun Inc., 66 Broadway, Rt. #1, Lynnfield, MA 01940. **Television** by Sony Corp. of America, Sony Dr., Park Ridge, NJ 07656. **Flower Box** from Spiegel, P.O. Box 6340, Chicago, IL 60680-6340.

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Cutlery by Amefa, from Maneuverability Inc., 4015 Ave. U, Brooklyn, NY 11234. **Niagara Mix Faucet** from Simross Enterprise Inc., 1161 Paterson Plank Rd., Secaucus, NJ 07094. **Modular Furniture and Room Design** by Antonio F. Tomco, ASID, Living & Learning Environments, 1240 California #1, San Francisco, CA 941109. **Solarium Design and Architecture** by Bolander Design Associates, P.O. Box 5545, Auburn, CA 95604.

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Pitcher and Mugs by Rosti (USA) Inc., 18 Sidney Circle, Kenilworth, NJ 07033. **Leaf Scoops** from Maneuverability Inc., 4015 Ave. U, Brooklyn, NY 11234.

For further information about Andy Baker's garden, see Carolyn Lattimer's article "With A Little Help From My Friends" in the December 1987 issue of *National Gardening*, published by the National Gardening Association, 180 Flynn Ave., Burlington, VT 05401.

Universal All-Directional Shower from Gemini Distributors, 3710 E. 43rd Pl., Ste. 101, Tucson, AZ 85713.

Desipro Door Handles by Attilio Macoli from Valli & Colombo (USA) Inc., 1540 Highland Ave., Duane, CA 91010-0245.

Freedom Phone by Southwestern Bell, 1000 Des Peres Rd., St. Louis, MO 63131.

Mentioned in Text: For more information about David Hunt's company, AFA Smart Systems, please write 9349 Melvin Ave., Unit 4, Northridge, CA 91324.

Big Button Phone from AT&T Phone Center Stores. For the location near you, call (800) 222-3111. AT&T provides additional supportive telephone equipment from their Special Needs Center, open by phone from 8:30 a.m. to 7 p.m. Eastern time, (800) 233-1222; TDD Users, (800) 833-3232.

The IBM National Support Center for Persons with Disabilities, 2500 Windy Ridge Pkwy., Marietta, GA 30067, (800) IBM-2133 (voice/TDD).

ComputAbility Corporation, (800) 345-4076.

Radio Shack provides a "Special Needs Catalog," which features their telephone, computer and other electronic aids. The free catalogue is available by writing Radio Shack, a div. of Tandy Corporation, 300 One Tandy Center, Fort Worth, TX 76102.

The Home Manager is a computer system providing security, climate control and lighting and appliance management. Contact Home Manager, Unity Systems Inc., 2606 Spring St., Redwood City, CA 94063.

PERS: A recent study by the American Association of Retired Persons (AARP) rating 12 of the most widely used PERS devices is available at no charge by sending a request on a postcard to "Meeting The Need For Security and Independence With PERS," AARP Fulfillment, P.O. Box 2240, Long Beach, CA 90801.

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Adjustable Lift and Sink by Villeroy & Boch (USA) Inc., Interstate 80 at New Maple Ave., Pinebrook, NJ 07068.

Adjustable shower by Watercolors Inc., Gamson on Hudson, NY 10524.

Titelable Mixing Bowls available from Maneuverability Inc., 4015 Ave. U, Brooklyn, NY 11234.

Iron Prototype designed for the Helen Hamlyn Foundation for the Elderly People by Frogdesign, Harmut Esslinger Inc., 34 S. Second St., Campbell, CA 94008.

Horizontal Refrigerator from Penguin Products, 47 N.E. 11th Way, Deerfield Beach, FL 33441.

Granberg Interior Mobile Kitchen available from Bibow Enterprises, Inc., 25 E. Mason St., Santa Barbara, CA 93101.