

## **Universal Design**

Ronald L. Mace, architect, is credited with coining the term "universal design" (also referred to as inclusive design). Mace used the term to describe the concept of "designing all products, and the built environment, to be aesthetic and usable to the greatest extent possible, by everyone, regardless of their age, ability, or status in life." While Mace is credited with coining the term, the true pioneer of universal design was Selwyn Goldsmith, author of the book Designing for the Disabled (1963), who truly brought the concept to everyday use. Mr. Goldsmith's most significant, and widely utilized idea, was the design of the dropped curb which remains a fixture in the built environment still today.

Emerging from the barrier-free concepts, the accessibility movement, and adaptive / assistive technology, universal design seeks to blend aesthetics into current and future design considerations. Rises in modern medicine allow for increases in the survival rate of serious injuries, significant illness, and birth defects. Similarly, advances in medicine have provided longer life expectancy. As such, universal design has become a growing trend in the design, build, and remodel industry.

For many, curb cuts or sidewalk ramps, essential for people in wheelchairs but also used by people pushing strollers, are a common example. Color-contrast dishware with steep sides that assists those with visual or dexterity problems are another. In today's market of kitchen redesign, there are also cabinets with pull-out shelves, and kitchen counters at several heights to accommodate different tasks and postures. When one leaves the home, another good example is found amidst many of the world's public transit systems, where low-floor buses that "kneel" (bring their front end to ground level to eliminate gap) or are equipped with ramps rather than on-board lifts, are making transportation services more accessible and accommodating.

While there are many industries in which universal design is having strong market penetration, there are many others in which it has not yet been adopted to any great extent. No matter the industry, universal design is a term that should be included in conversations at the local, state, and national level. The Center for Universal Design at North Carolina State University has identified the following as the core principles of universal design:

Equitable use, flexibility in use, simple and intuitive, perceptible information, tolerance for error, low physical effort, size and space for approach and use.

Each principle above is succinctly defined and can be applied to the design processes in any realm: physical or digital and the principles are broader in scope than those of accessible design or barrier-free design. Now, imagine a world that considers these core principles.