EDITORIAL:

Welcome to the February 2022 Vol-17 No-2 issue of Design for All. I am grateful and honored to be asked to serve as Guest Editor for this edition of the online journal.

I have been working to promote the use and benefits of Universal Design for 40 years, since I met Ron Mace in Washington D.D. in 1982 and we became friends. As an architect who grew up as a person with polio, Ron was thoughtful and intentional about how design affected his life and the life of other people with disabilities. He talked about the "built environment" as being hostile to people with disabilities. He informed me that design comes about absent the lived experience of people with disabilities who have to try to navigate homes, public buildings, public spaces, public transportation systems and airplanes, personal vehicles, schools, museums, stores, etc. He pointed out that we could, and should, educate designers, builders and developers how to create buildings and spaces in ways that include people with disabilities, rather than exclude us. Ron Mace also said that the ideas for what would constitute a more universal way of designing needed to be initiated by people with disabilities and promoted by people with disabilities to the design/build community. And he called it "Universal Design".

Those of us who were immersing ourselves into the promotion of Independent Living and the rights of disabled persons to live independently, were advocating that people with disabilities should have the right to live independent productive lives in our communities, rather than being relegated to nursing homes. However, to do that would require massive changes to how public transportation systems, public spaces, housing, airplanes, public

rights of way and more were created, because without better access to all these places our goal of integrating people with disabilities into mainstream society would simply not work. We needed access!

People who are not disabled don't think about access—until something changes in their lives that makes them wish our society was more open and welcoming to people with disability. A broken leg, broken hip, stroke, loss of hearing, loss of vision, giving birth to a child with a disability, changes that occur as a result of cancer or other serious illness or injury, can happen to anyone at any time. Any one of us can become disabled at any time. Any one of us can have a family member or friend who becomes disabled at any time. So, all of us have a vested interest in caring about how Universal Design can benefit ALL people.

For this month's issue of Design for All, I am including presentations from key presenters and practitioners of Universal Design for your information, curiosity, enjoyment, interest and help so that we can work together, share our ideas, and all promote the use and benefits of Universal Design for all people. These presentations are from Universal Design Summit 7, which convened virtually via Zoom, September 29-October 1, 2021, and was organized by the Starkloff Disability Institute in St. Louis, Missouri, USA. I hope I have chosen a good variety of presentations that cover different topics and leave the reader with new thoughts, and the possibility of connecting with any of the presenters to continue to share ideas and best practices to help the field of Universal Design grow even stronger.

Universal Design can impact the built environment, technology, manufacturers of furniture, appliances, faucets and fixtures,

kitchen and bathroom products, buildings, single and multifamily residences, resorts, transportation systems, air travel, cruise ships, museums, communication, the internet, computers, cell phones, televisions and so much of what we use and need in our daily lives. And Universal Design – done well – can be very attractive to those who need it now and those who may need it at some point in their lives. Universal Design – done well – benefits all of us!

If you are interested in being on the email list of notifications about future Universal Design Summits, please let me know. We always welcome new attendees and new perspectives on the use and benefits of Universal Design.

Be well and please check out these articles!

Warm regards,

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Universal Design Kitchen – A Dream Come True!

Colleen Kelly Starkloff, Founder

Starkloff Disability Institute

I grew up in St. Louis, Missouri, the oldest of 12 children in a home that had to keep expanding as the babies kept arriving. I went to the local grade school, usually with siblings in tow, to a local private high school and local private university. While I was in grade school the Principal would ask me to sometimes help one of the students, who had Muscular Dystrophy, to walk up and down a steep flight of steps so we could all go play on the playground. I was happy to help.

That was one of my first experiences with someone with a disability.

There was also a boy who lived up the street from me. Every day the big yellow school bus would come up the street to pick him up. The bus driver would carry him into the bus and then walk up the steps to his house, fold his wheelchair up and carry that into the bus. He didn't go to our school. He was sent off to a "special school", because he had Cerebral Palsy. When we went to his house to play we had to sit on the front porch and just talk to him. There were steps from that porch and he couldn't get down to come play with us.

That was my other early experience with someone with a disability.

In my Physical Therapy classes at St. Louis University,we learned a lot about rehabilitating someone with a disability, but we knew nothing of what the environment would be like for that person once they went home. When I graduated I had a job waiting for me as the Chief Physical Therapist in a nursing home. The second day on the job was the first day of the rest of my life. On that day, October 2, 1973, I met Max Starkloff!

Max was living in the nursing home because he was quadriplegic, due to a spinal cord injury, and needed Personal Assistance to get bathed, dressed and out of bed every day. In those days, the idea of having someone to do that, other than family, was only for those who could afford private duty nurses. I fell in love with Max right then. Yes! Love at first sight! I was fascinated by this handsome man who was living in a nursing home, wanting to find a way out, to be married, have a job and live in his own home with a wife and kids. What a dream for him, and one that became my own! We dated for 2 years and were married in 1975.

What happened while we were dating was that I was beginning to see disability through Max's lens. It was not a view of hospitals and nursing homes, and people incapable of working and living in the community. His was a view of a very different world, where one could wheel down streets and cross them with curb cuts; ride buses, fly in planes, have accessible homes, have access to Personal Assistants to help with daily living tasks and really live like everyone else, but with the right changes to allow that to happen. None of that existed back in 1973. It was all a pipedream, just waiting for us to get involved and make it a reality. There was some action among disabled people around the nation, who were all thinking in much the same way and we

got connected with these like-minded people and began to all work together to create the national Disability Rights Movement.

You meet a lot of interesting people when you engage in a Movement and one of the earlier ones we had the privilege to meet was an architect by the name of Ron Mace. He had contracted polio as a child and grew up to be an architect to try to eliminate a lot of the physical barriers that existed, preventing him from moving about freely in what he referred to as "the built environment". As a person with a disability, Ron created the first really comprehensive building code for the state of North Carolina that included accessibility features and requirements for people with disabilities. This became a model building code and was adopted by many other states as well. However, because Ron was disabled and part of the Disability Rights Movement in the U.S., and because the major focus of the Disability Rights Movement has always been full integration of all people with disabilities into our society, Ron began thinking of how to better integrate people with disabilities through design.

Ron started talking about a new concept which he called Universal Design (UD). Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.The concept has begun to take off since those early 80's and designers, product manufacturers, technology advances, public rights of way, transportation systems, computers and so much more have become available to make UD an important part of how we live today.

Since meeting Ron Mace, I have been devoted to advancing UD. So much so that I gutted my outdated kitchen and created a universally designed kitchen in my turn-of-the-century home in St. Louis. 20 years ago my late husband, Max Starkloff, and I added a 900 square foot family room to the back of our house. It adjoined our kitchen. So with a gut rehab of this kitchen I was able to extend my small, older kitchen a bit into the family room and create an island work space, which I have never had and didn't know what I was missing!

So,following are pictures, features and considerations that were part of my thinking as I worked with my architect, Greg Zipfel and then a contractor/interior design team in St. Louis, Missouri who operate as Compass/Design Build. Peter and Jennifer Uetrecht,proprietors,helped create and build this kitchen for me.

I wanted a truly Universal Design approach. I did not want a straight accessibility approach, (for persons with disabilities), because that caters only to people with disabilities. I set out to prove that Ron's idea of a universal kitchen, i.e., one that would work for a seated cook,someone who has vision loss, someone with a temporary disability, children and people with no disability was actually possible. You be the judge as you check out my photos!

I installed:

Front mounted controls on an induction cooktop, and for the 2 garbage disposals;

Two pop up electrical receptacles embedded into the counter top in the kitchen and island areas;

Single lever faucets located near the front of the countertops for easy reach and use;

- ***The faucets for each sink have pull down sprayer hoses easily reached by a seated cook***

Kitchen sinks (3):

- ***one is installed in the main kitchen area; (5 inches deep and 30 inches wide);***
- ***one is installed in the island;***
- ***a deeper sink with a garbage disposal is located adjacent to the kitchen sink;***

Garbage disposals:

- ***one in the island sink, located to the far-right rear corner of that sink allowing for a seated userto pull underneath and not hit the garbage disposal with their knees;***
- ***one in the deeper sink adjacent to the kitchen sink, that does not have a garbage disposal in it;***

Touch controls and remote controls are part of the appliances;

- ***Both wall ovens and the exhaust hood over the induction cooktop are able to be remote controlled;***
- ***Under cabinet lighting is remote controlled;***

Counter depth refrigerator and separate counter depth freezer;

Pot filler is installed in the counter at the side of the induction cooktop;

Dishwasher (2)s:

- ***one is installed 10 inches above the finished floor next to the kitchen sink (raised dishwasher);***

The other is a standard installation, located next to the island sink.

Ovens (2):

- ***one is installed so that the door drops open to 30 inches above the finished floor;***
- ***underneath this oven is a drawer microwave that opens to a height that is comfortable for a***

seated cook in this kitchen to easily remove food cooked in this **lowered microwave drawer.**

- ***The other oven is installed under the buffet counter top, but is located right next to a pull under work surface which is electrically adjustable in height.***

Ceiling height base cabinets; (36" above the finished floor)

Standard height wall cabinets;

- ***The doors to the base cabinets underneath both sinks and the induction cooktop are easily removed.***
- ***The cabinet floor and toe kick are also easily removed.***
  - ***Therefore, a seated user of this kitchen could pull under either sink, the induction cooktop or the flexible workspace and prepare food, cook food and clean up from a wheelchair;***
  - ***The adaptations from a universal kitchen to an accessible kitchen do not require a carpenter to come in to make these changes. It can be adapted in minutes quickly by the homeowner for a guest in a wheelchair who wants to come over and help cook dinner, or for a home owner who suddenly sustains a temporary or permanent mobility disability and needs to be able to sit while using this kitchen.***

It is important to note that this kitchen was developed specifically to take advantage of the fact that power wheelchairs can now be purchased with an elevator on them so the seated

cook can pull under the workspaces, sink, or cooktop and raise their wheelchair to a comfortable level to work on food preparation. For the homeowner who doesn't need the access accommodations, the 36 counter height is attractive and functional for them. Best of both worlds!

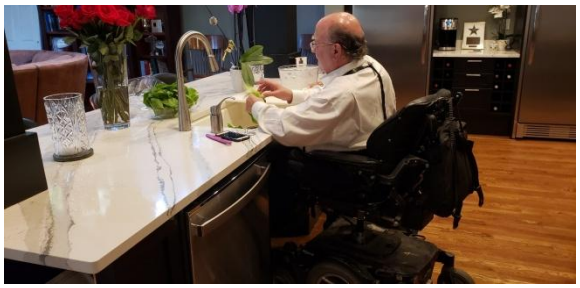
View of Buffet center: The buffet center is designed for easy entertaining, dinner parties, and additional work space when many cooks join in making dinner. Its UD features include: flexible work space. An office desk type mount was obtained that moves up and down at the push of a button, and can be preset for certain heights. My grandchildren love this because we can lower the surface to their height and they get to pour waffle batter into the waffle iron "all by themselves" because it is within their reach range! The oven was located here so that a seated user can sit next to it and bring a hot item up onto the work surface for serving. There is a beverage center under the other side of the flexible work space, also within a comfortable reach range for a seated user.

View of flexible work space in higher position.

View of Island sink: this is a 5” deep x 30 wide Kohler porcelain sink with right rear corner drain. Installed under the countertop, the total depth of this sink is 7” deep. A wider sink with a corner

drain was specifically sought to keep the garbage disposal out of the way of knee space of a seated user of this sink. The base cabinet doors, floor and toe kick are easily removed from underneath this sink. The garbage disposal button is located near the front of the counter, along with the single lever water mixing valve. The faucet has an easily pulled down water/sprayer combo that reaches fully around this sink for food prep and cleaning the sink. To the right is a pop up electrical socket that was embedded into the counter top and located near the front of the counter for easy reach by a seated cook.

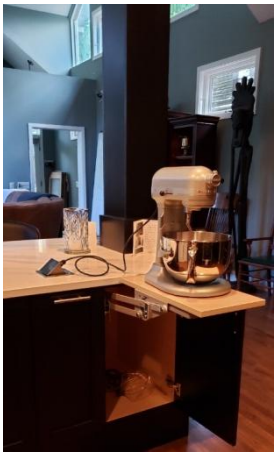
My friend, David, who uses a power wheelchair with an elevator on it and is a great cook!



View of induction cook top: Pot fillers havebecome very popular in homes these days, but they are all embedded in the rear wall above a stove or cooktop, and a standing or seated cook has to reach to a back wall, sometimes over a hot surface. This unique pot filler was sought specifically so that it could be free standing and embedded into the counter near the front of the induction cook top and moved over the top of pots that need water. Not only is it functional, it's also very attractive! Visitors are captivated by it! The doors, floor and toe kick underneath the induction cooktop are easily removed in minutes for pull-under access by a seated cook. The exhaust hood has a remote control for ease of use by either standing, or seated, cooks.

Counter depth Frigidaire refrigerator and freezer installed with a space in between to place items removed from either. Counter

depth makes it easier for a seated cook to reach whatever they wish from either appliance, without having to reach into a deeper fridge/freezer. The space in the middle allows for a coffee center and has wine racks built into both sides of the 3-drawer base cabinet, within the reach range of a seated user.



View of KitchenAid mixer in the raised position. A KitchenAid mixer is embedded in a base cabinet that stores and raises this heavy mixer to a height that a seated baker can work with it and also easily store it below when finished. The mechanism that raises it handles all of its very heavy weight. The electrical socket to the left is embedded into the counter top and is a pop-up type.

View of Island sink: book cases are embedded at either end of the island within easy reach of a seated or standing cook. The doors, floor, and toe kick underneath this island sink are easily

removable for a seated cook. The dishwasher to the left is a standard install, at floor level, which is easily used by a seated or standing cook. There is a small charging station for cell phones, tablets embedded into the top shelf of the bookcase.

View of wall oven in the open position. This oven was installed such that when the oven door is opened it will open to 30" above the finished floor. This is a good height for a cook using a power wheelchair to pull under, slide the lower oven rack, which is on easy pull rollers, out over the door, place the hot item onto the door and then move it to their lap on some heat proof surface. Seated cooks also have the option to use the other, lower oven at the buffet center. The oven controls are in the reach range of a cook using a power chair with an elevator on it. The oven controls are also remote controlled via an app on a cell phone.

View of microwave drawer installed below in-wall oven. This microwave drawer has touch controls that are easily reached by a

standing or seated cook. The drawer rolls out automatically into the reach space.

View of wall oven and microwave drawer in closed position.
View of kitchen: The wall cabinets are ceiling height. The lower shelves of each can be reached by a seated cook who uses a power wheelchair with an elevator on it.

There is also a pantry near the island that will accommodate items that need to be stored in the reach range of a seated cook, as an adaptation for lower storage space. The pantry has adjustable shelving installed for this use, should it become necessary.

View of pop up electrical socket embedded into a counter top near the front of the counter within easy reach range of a seated cook.

View of pop up electrical socket, ready for use.

View of easy release base cabinet hardware that allows for quick removal of base cabinet doors underneath both sinks and induction cooktop.

View of main kitchen sink, raised dishwasher and induction cooktop in line with each other for practical

View of main kitchen sink. Items underneath this sink are neatly stored in baskets so that if this space needs to be opened up for a seated cook they are easily removed. Raised dishwasher is to the left. A raised dishwasher is easily used by a seated cook, but incredibly convenient for a standing cook! It was designed to be

installed below a wall cabinet and removing dishes to store them in the cabinet above after washing is a dream come true!

View of raised dishwasher in open position.

Hidden pot rack that stores in a base cabinet near the induction cooktop. Works well for standing or seated cook but is located within easy reach of seated cook.

View of kitchen sink adjacent to deeper work sink. Work sink has a garbage disposal.