

## Design Students Consider Space Solutions for Adults with Autism

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For over a decade, Virginia Commonwealth University has been actively seeking and engaging in a healthy community partnership process. In our strategic plan as a school in the university's Quest for distinction document we have focused on becoming a national model for community engagement. The commitment is such that we have a council for community engagement with the following mission stated on the VCU website: "...mobilizing university-community partnerships that generate innovative solutions to societal challenges and preparing the engaged citizens of tomorrow." The vision declares that we are "...a community of engaged citizens working together to change lives." In this process we see ourselves as individuals that seek collaborative partnerships within our community where knowledge and expertise can be shared, diversity of thoughts and ideas can be pursued and valued, new knowledge can be disseminated, and best practices can be established.

Lori Gardiner in her book on Service Learning through community engagement writes: "Community engagement is not a political act; when faculty, students, or institutions collaborate with local community organizations and residents, there is an implicit or explicit declaration that we can do better as a society."

As part of the School of the Arts all of us in the department of Interior Design believe and support this vision and mission. Many faculty and students consistently participate and contribute to opportunities in serving and learning from our community.

Two years ago, researchers and faculty from the Rehabilitation Research and Training Center, and the Gerontology Department at Virginia Commonwealth University, approached the Department of Interior Design with an interesting proposal to engage in a partnership between our programs and a community entity. The two university units had been discussing the quality of life of aging adults with disabilities. Our community partner, A Grace Place (AGP), is a local adult day care facility for adults with any and all disabilities. The goal of the team was to improve and enhance the everyday lives of adults with disabilities with a focus on adults with autism spectrum disorder (ASD). Autism is a lifelong neurodevelopmental disorder; however, the developmental trajectory as adults with autism age is not well understood. With the rise in recognition of the disorder, adult outcomes have become an increasing priority for this population. A 2008 study by Easter Seals found that more than 80 percent of adults with autism between the ages of 19 and 30 are still living at home. Without tools and opportunities to develop life skills, acquire training for work prospects, and generally engage within our societal structure meaningfully and without discrimination, parents of children with ASD have much to worry as their children age into adulthood.

As the discussion evolved the group looked at areas of concern and areas for improvement. The discussion revolved around programs offered in the center, staff training opportunities, and spatial

accommodations necessary to promote stress reduction, better processes for interactions and deeper engagement in daily activities. The group considered our university resources and they contacted our department offering the prospect for us to get involved in the research by engaging in their process. Our conversations started with the intent to involve faculty in investigating design solutions for AGP that could enhance daily activities of the specified population and potentially be used as practices for other centers.

Getting further into the discussion we considered the benefits of involving our students in the development of this project. This could bring to students, faculty, the university, the local community, and the broader community of adults with disabilities potential for discovery, and success. A Grace Place would serve as our host where we would be able to explore solutions and investigate design ideas. The connection we had to a group of researchers would introduce our students to a better understanding of adults with disabilities and more specifically to adults aging with ASD.

This would prove to be a great chance for our students to not only get exposed to a real design problem with programmatic requirements, real clients, universal design solutions, human factors as they relate to design solutions, but to also understand and reach out to our community and consider their role as an active participant in enhancing the quality of life of others. Students would have the chance to hear from researchers about ASD, and about aging adult needs. This would be a great chance for all of them to experience the power of designing for all. As Linda Nussbaumer states in her book, *Human Factors in the Built Environment*: "...criteria to engage in when designing and considering inclusive design include the following design principles: Responsive, Adaptable, Accessible and Secure."

During the early stages of our meetings, the community partner was also considering the potential of the construction of a new building. A plan was in place for the center to, either relocate to a facility with a more suitable layout and amenities, or to build a facility based on their needs and programmatic requirements. As we considered the possibilities of our team approach we could only see positive experiences as the outcome to this prospect of collaboration. There was the existing collaboration of our group and the potential for our students to be exposed to the collection of programmatic requirements and data and participate in the design process from the ground up, as a potential Design and Architecture firm would be collaborating with us at that point.

Proceeding as a team, our next step was to secure funding that would allow us to test ideas, hire graduate teaching assistants, produce training manuals, and build prototypes that would further the daily involvement of the ASD clients. Through this process we were able to secure our first community engagement grant through our university. Our grant titled: "Designing a Place to Be: A University-Community Partnership for Addressing the Needs of Adults with Autism" was awarded over \$9,600 of University support.

Our team was ready to take this on and move forward for the 2016-2017 academic year. As all four parties came together we formed our transdisciplinary partnership and we branded our group as the Partnership for Aging with Autism Research Core (PAARC). Our team set up goals, a mission and a vision. Our mission: PAARC will conduct quality research to develop appropriate, innovative, and flexible best practices and support services for people aging with autism. Our vision: PAARC will become a transdisciplinary core of person-centered support services for adults aging with autism and

their caregivers. Our research focus will promote dignity, independence and respect and will demystify fears to foster accepting of all diversity. Our focused goal: To create an environment, which maximizes the capacity to achieve the best quality of life possible for the clients in the center and beyond.

We quickly reached out to our group of Interior Design graduate students to gauge interest for the project. Two second year MFA students, were key members of our team as they were able to physically and digitally document the existing space, research information on design ideas and developments for adults with ASD, and compile information for a project we were later able to share with participating student groups. Our graduate assistants visited the AGP space, attended all group meetings, and contributed ideas as we established guidelines for the process. They were able to complete as built drawings of the existing space that we then shared with our two studio groups that worked on the student project. At this point it was clear to us all that the new building proposal was placed on hold and our focus was to be placed on the existing structure. As we formulated our ideas for the project and we realized the potential of sharing this with a broader group of students, we shared project information with all full time faculty in the department and solicited their interest in taking this on as a project in their respective studios. While there was interest by almost all faculty, the project was most suitable for two of our studios. Professor Smith was interested in bringing it into the first professional graduate studio and Professor Fell was interested in participating with a group of sophomores. Our graduate assistants were ready to share the information they had gathered and the research they conducted over the period of seven months. They produced some guidelines they proposed to the faculty and students involved. The guidelines were vetted and discussed by everyone in the PAARC group. The summary below is the sample statement shared with all parties involved:

#### Problem Statement:

How do we design spaces to support adults with Autism and their unique needs while not compromising the space of other residents at AGP, including those with visual impairments, physical impairments and/or dementia?

#### A Grace Place Mission Statement:

AGP provides individualized day support services for adults with disabilities and age-related conditions to support community based living and prevent isolation.

#### A Grace Place Vision Statement:

AGP will be the premier provider of person-centered support services for adults with disabilities and other age-related conditions and their caregivers. We will promote dignity and respect, and we will demystify fears to promote one community that is accepting of all diversity.

#### Users:

Adults with Autism, ranging from 18 to 85 years of age. These clients may also have other disabilities including dementia.

Caregivers who assist and work with the clients of AGP.

### Project Goals:

To create an environment which maximizes the capacity to achieve the best quality of life possible for the clients of AGP.

To design a multi-purpose space that supports the best-practice programming developed by the PAARC committee. These supports address independence, stress reduction, communication, special engagement and leisure skills.

Activities should include art, cooking, gardening, and music

To provide spaces of community and spaces of privacy within the overall multipurpose space.

To design ancillary spaces for AGP staff that are: both efficient (for task-related duties), and restorative (for short breaks and personal business).

To evaluate existing practices.

To develop a set of goals for a sustainable space.

To increase awareness of the needs of this specific population.

### Considerations:

Individuals with Autism often display strong behaviors when over- or under-stimulated. Due to this, material selection will be an important consideration when designing these spaces.

Examples include:

- Easy to Scrub surfaces

- Low VOC materials

- Muted color selections

- Minimal patterns (or intentional patterns for way finding)

Flexibility over the space is another important consideration that gives both user and support staff control when necessary. Examples include:

- Adjustable fixtures

- Blackout shades or adjustable window treatments

- Quick access to support spaces such as bathrooms, quiet spaces...

### Site Information:

A Grace Place is located in the west end of Richmond, Virginia, and occupies the majority of the U-shaped, one story complex. A landscaped area and a parking lot separate the building's footprint from Staples Mill a busy six-lane road, providing a level of visual and acoustic privacy from it. This setback also provides plentiful space for the drop-off and pick-up of clients, a very

important logistical issue. There are currently six different entrances into the building, and all are utilized for specific purposes. In addition to the interior, there is a limited amount of outdoor programmable space. It is important to note that this building was originally built as an office complex that was then renovated to include the needs of AGP.

These parameters were shared with the faculty involved. As the two of them considered the project for each studio, they worked on another collaborative opportunity that allowed for both groups of students to come together and share research and design ideas. Both faculty and student had a chance to visit A Grace Place, engage with the clients, and experience a day in their life. Students were split into groups and had the opportunity to meet and interact with the clients – our end users.

The faculty reviewed the ambitious scope of the project and decided to focus the student project to address the multipurpose room design at AGP. Students were put in mixed teams of graduates and undergraduates. In their groups they were asked to share their experiences within the parameters of the project and react to prompts given to them by the faculty. Our PAARC team met with them to explain our ideas and process, our research project, and to share their research on adults with ASD, as well as aging. Students produced a number of drawings, and models as they produced individual design solutions for the space. They all presented their design solutions to the PAARC team at the end of the semester. The creativity and enthusiasm on both sides was remarkable. The students were excited to share their journey toward their design solutions and the team was ready to embark on seeking funding to incorporate some of the ideas they were seeing.

It is noteworthy to share some of the comments that we solicited from the students after they completed their work, as they relate to the AGP visit, their interaction with the clients and the project include the following:

*“Not to sound cliché but it was very life changing and eye opening. It was our first time meeting both a client and end users, so it made the project feel more real, not just an assignment for studio class.” Sophomore student.*

*“Visiting a Grace Place was one of my favorite parts about the project as a whole. Seeing the people we were ‘building’ for was a delight and I loved being able to interact and spend time in the space. Personally, I reconsidered how much space I gave to circulation after visiting.” Sophomore student.*

*“The visit was the most important part of the project. I do wish it happened sooner than when we went for it but yes, the design did change after the visit. A first hand interaction with the people, staff and coordinators gave me a newer perspective of what their needs and wants from such a project would be.” Graduate student.*

*“Visiting definitely changed the way I approached the project. I have worked with children with autism, but realizing that we were designing for adults made me reconsider certain elements. I wanted to respect the autonomy they had and support it, which meant trying to make the space feel more refined than what I was initially envisioning.” Graduate student.*

One of our Graduate assistants shared the following about the project:

*"One of the most rewarding aspects of working on the A Grace Place Project was the opportunity to work with such an incredible team, comprised of various trades within the VCU community. Each team member was equally critical in the collaborative effort to share our knowledge and research - to teach others and ourselves in the community about autism and the individuals at a Grace Place. Although we were presented with many challenges, ultimately knowing there is no right answer to our design, we learned how to innovatively address the sensitivities and special qualities of the clients."*

Our team is moving forward with our research. We were awarded another grant from the VCU Council for Community Engagement on "Building Interactive Environments for Older Adults with Autism that Promote Stress Management and Engagement." This grant was for the academic year of 2017-2018 and we were given over \$19,600 for our project. During our interview there were many committee members interested to hear not only of our project idea but also of the student engagement in this process. In the book *Engaging in Social Partnerships*, Keith poses this as a question: "...how do we cultivate a new kind of professional who can facilitate, lead, and learn through these partnerships, not as an expert but as a citizen – a civic professional who can work democratically across social divisions creating and using both local and expert knowledge." We believe this is the beginning of this process. Our hope is to plant the seeds within the student experience to understand the value of community, engagement, diversity, citizenship, and involvement. Providing real life experiences for students to understand the significance of Universal Design as a set of guidelines promoting access for all people regardless of age and ability; to value the federal civil law of Americans with Disabilities Act, to end discrimination against people with disabilities; to understand client-centered design as a focus placed on designing for an individual while addressing their individual needs; and last to instill in them the importance of seeking thoughtful design solutions for spaces that are inclusive and meet and exceed the needs of people of all abilities and age.

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