

SENSORY HAUS

IN BRIEF



TALLstudio + CPLA, a team focused on architecture, landscape architecture, urban planning, and graphic design, is striving to add ease and accessibility to the process of moving out of the family home and into a space of one's own. Through simple, smart design and tried and true techniques the team has defined a system that can be implemented expediently and in varied environments and situations. The overarching goal of Sensory Haus is an easily customizable space that allows the inhabitant, through a series of simple tests, to program their space to suit individual needs and wants. The program will include a modular testing facility that will aid in determining the preferences of the user, and through a series of data finding exercises, a comprehensive plan will be plotted. The plan can then move into production. Via research, questionnaires with both the user and the family, and behavioral studies, the site and location of the housing will be determined based on individual preferences, need for outdoor accessibility, and future goals/plans. Sensory Haus will be inexpensive to build, can morph overtime, can grow with the user, and most importantly will provide a sense of ownership, pride, and companionship. The program will be the missing link between adults on the spectrum and society at large, aiming to encourage society to see the benefit of a different way of thinking from adults who are empowered by their living situations and thus empowered to achieve greatness. Sensory Haus is not a building, instead it is a system of thinking and a plan for implementation.

THE TEAM



Mark Talley, AIA, NCARB is co-owner of TALLstudio. Mark is a licensed architect in the state of Mississippi. He has an architecture degree from Mississippi State University and has worked in a multitude of award winning architecture firms around the nation. His strengths reside in the relationship between the big idea and the highly detail oriented final phases of a project. Mark can clap with one hand.



Madison Talley is co-owner of TALLstudio. She has an architecture degree from Mississippi State University. Upon graduation, she knew she wanted to be more of a hands-on designer and subsequently went to work designing and building large scale art installations, where she was able to experiment with a multitude of materials & techniques. Madison is a weaver of architecture, cloth, and stories.

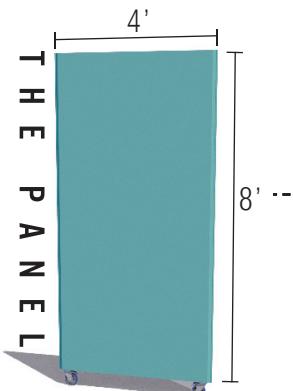


Oliver Preus, PLA, ASLA is a landscape architect with Christian Preus Landscape Architecture. Oliver has a degree in Landscape Architecture from Mississippi State University and a Master of Community Planning from Auburn University. Oliver is passionate about creating place within the community and bringing great design to the people via landscape and urban environments.

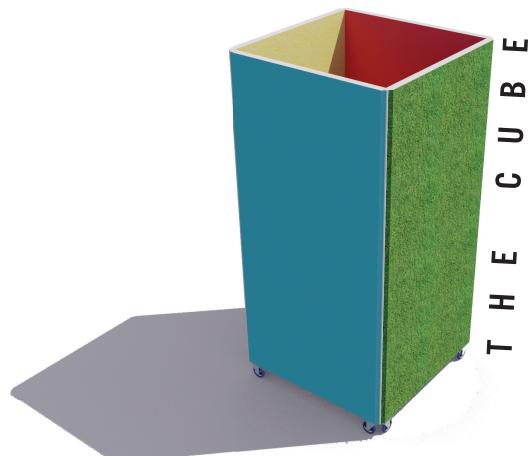
SENSORY TESTING CENTER

WHAT IS IT?

The Sensory Testing Center is a modular system that can be transported, flat packed, and shipped efficiently around the country and eventually worldwide. The Sensory Testing Center is a series of 4'x8' panels that, when erected, form a series of transformable cubes. The cubes are simple to assemble, and when grouped in a variety of formations, assist in testing responsiveness to materiality, enclosure, light, and sound. Each cube will represent eight different materials; one material on each side of the cube both interior and exterior. The cubes can be grouped to mimic a room in a home, via size and shape, and the materials on each surface can be tested by turning the cubes one at a time to reveal either a uniform material palette for the room or a material change at 4' intervals. The studies conducted within The Sensory Testing Center will consist of allowing the individual being tested to explore the space for a given amount of time (the time would vary based on the attention span and patience of the individual), a heart rate monitor recording and charting beats per minute (BPM), an eye examination while in the space recording pupil dilation, and an verbal/written exam recording the feelings of the individual about the particular material and space which they are exposed to.



- Casters for easy transformation
- 360° hinges for adjusting enclosure & materials
- Packs flat
- Stackable
- Modular (based on a 4'x8' sheet of plywood)
- Easy to apply color/textures



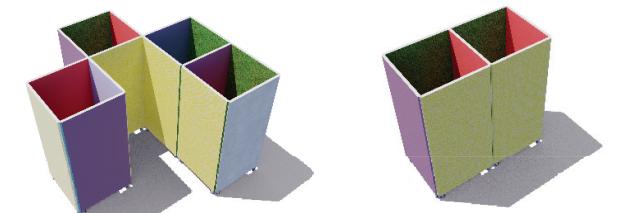
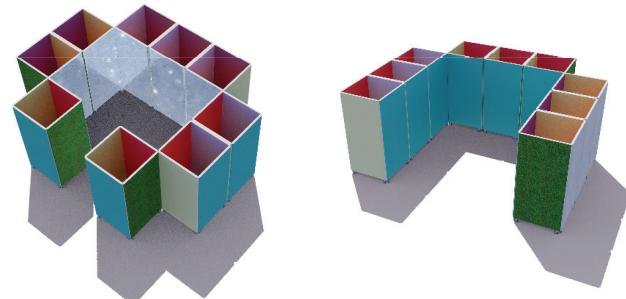
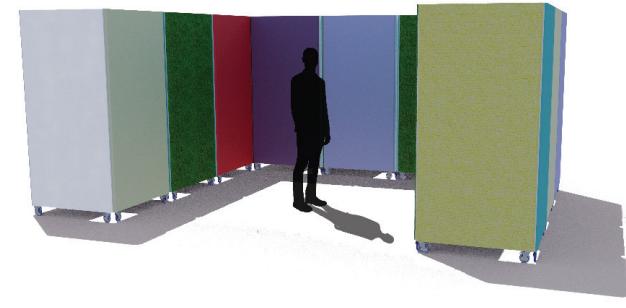
SENSORY TESTING CENTER

HOW DOES IT WORK?

The Sensory Testing Center will be shipped to a testing facility, be it an already existing school or ABA center, and erected in a room/space that would be fit for quiet testing and observation. The testing facility can choose how many cubes would appropriately fit in the space, 4, 8, 12, etc., and can order the cubes with a variety of materials, textures and patterns...surfaces which they feel individuals will be the most receptive to. The cubes will be erected in the space and an adult on the spectrum will come in one at a time to be tested. The cubes forming the Sensory Testing Center will be altered in increments varying from individual to individual, transitioning from one solid color/textured, multiple colors/textures, and tight spaces vs. open spaces. The individual being tested would have their behavior, both verbal and physical, recorded and the data would then be analyzed and sent to a facility where the Sensory Haus would be prepared for construction.

When analyzing the data, higher BMP (beats per minute) and larger pupil size would indicate excitement, lower BMP and smaller pupil size would indicate a sense of calm, and the individual will have a chance to verbally explain their feelings towards the particular material and space. The materials that generate higher BMP/larger pupil size will be used in the more public areas of Sensory Haus- kitchen, living room, and porch. The lower BMP/smaller pupil size will be applied in private areas, where a sense of calm would be preferable, including the bedroom, bathroom, and closet.

The materials being tested will be a mixture of soft/hard, smooth/textured, reflective/static, and natural/artificial. Based on the individual being tested, there will be a variety of materials that will excite, stimulate, and soothe.



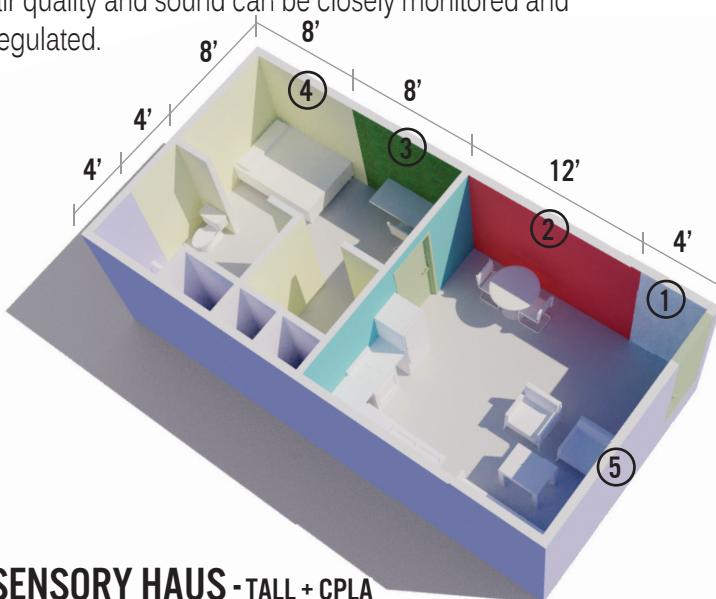
THE MODULE

WHAT IS A "SIP"?

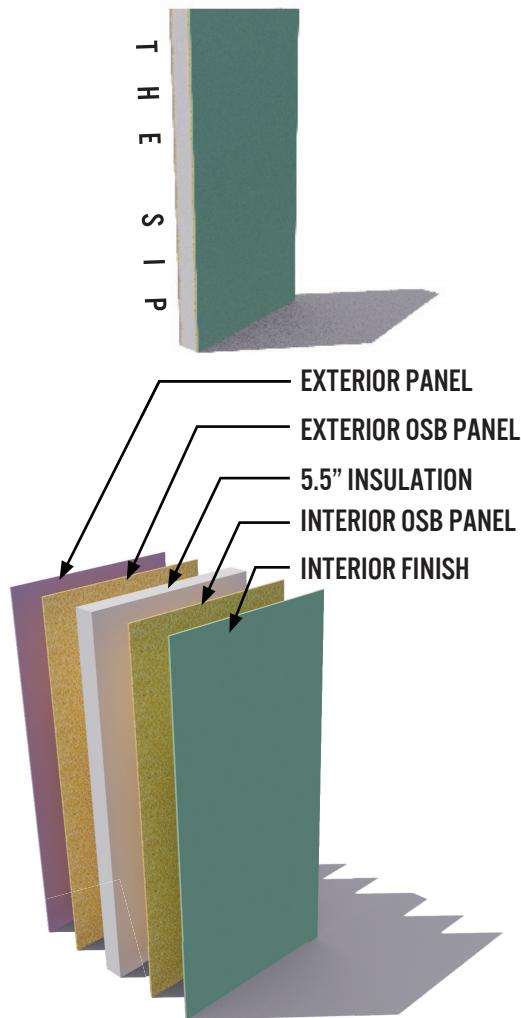
Sensory Haus will be constructed of SIPs (Structurally Insulated Panels), which offer many benefits in the construction field; however, are currently being underutilized. SIPs allow for faster construction time, higher efficiency, and are more financially feasible, with a SIP building being 30% less expensive than a traditionally built structure.

SIPs are constructed in 4'x8' units that are composed of three layers- an interior layer of OSB (Oriented Strand Board), a 5.5" layer of insulation, and an exterior layer of OSB. The panels can be constructed off site and once in the field can be customized with an interior and an exterior finish. For Sensory Haus, the interior finishes chosen based upon the individual's results from the Sensory Testing Center would be produced in 4'x8' sheets, allowing for ease of installation and transportation.

We believe the SIP to be the best means of construction for Sensory Haus because it is ecologically friendly, energy efficient, and releases no VOCs (Volatile Organic Compounds) that can damage or disrupt sensitivities to environmental factors. Furthermore, structures built with SIPs are incredibly air-tight, meaning that indoor air quality and sound can be closely monitored and regulated.



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EXAMPLE OF FINISH SELECTION:

- ① ENTRY - MIRROR FINISH - SPATIAL & SELF RECOGNITION
- ② DINING - WARM RED FINISH - CONTROLLED EXCITEMENT
- ③ DESK - TEXTURED NATURAL GREEN - AWARENESS & ENERGY
- ④ BEDROOM - SOFT CREAM - SOOTHING WITH LITTLE DISTRACTION
- ⑤ EXTERIOR - LILAC - ALLOWS OWNERSHIP & WAY-FINDING

A RURAL ENVIRONMENT



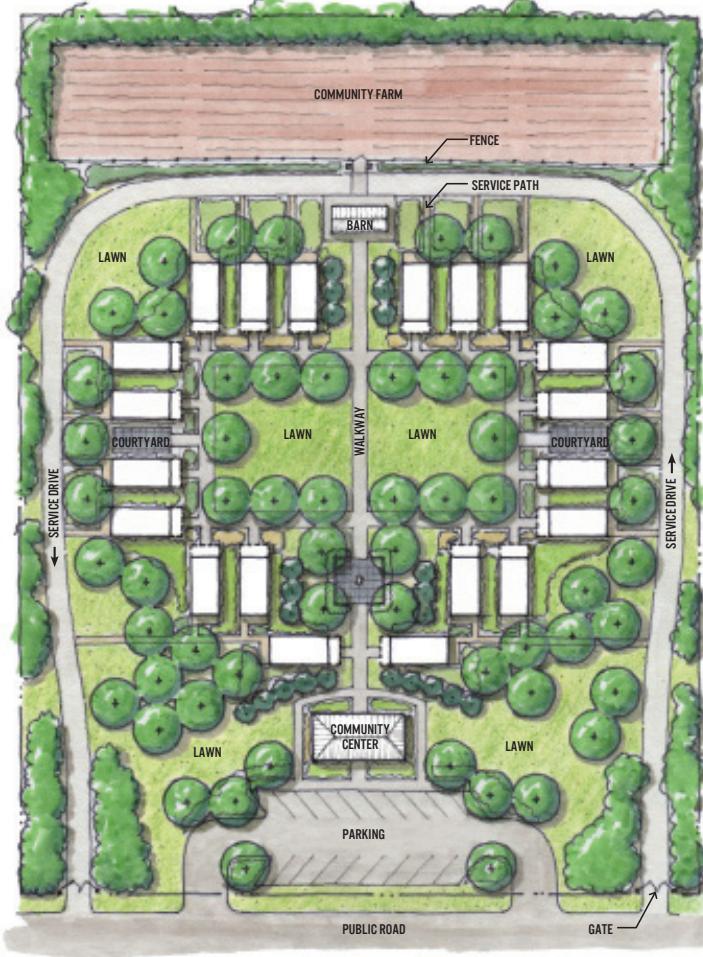
A UNIFIED COMMUNITY

In the rural environment Sensory Haus is able to transform into a self-sustaining community. Each individual will have his/her own dwelling unit that opens out onto a common plaza which functions as a communal and gathering space. The rural Sensory Haus will be set on at least 3.5 acres with a minimum of 20 units and consideration for the possibility of future expansion.

A large garden/farm will be shared amongst the members, as will the workload, to keep the garden/farm up and running. The rural living scenario for individuals on the spectrum is not a new concept, however, how Sensory Haus comes in-to-play is revolutionary. If a new individual is interested in joining the community, it will be easy and unobtrusive to build a new dwelling unit and customize as necessary. Sensory Haus will allow the rural environment to expand in a comfortable manner amongst the land and the community members. In addition to new residents, caregivers can be easily accommodated with the addition of their own Sensory Haus. The caregivers could be temporary or permanent and would be able to seamlessly enter the community and assist where needed, while maintaining a sense of privacy, ownership, and independence.

A RURAL ENVIRONMENT

COMMUNITY GROWTH



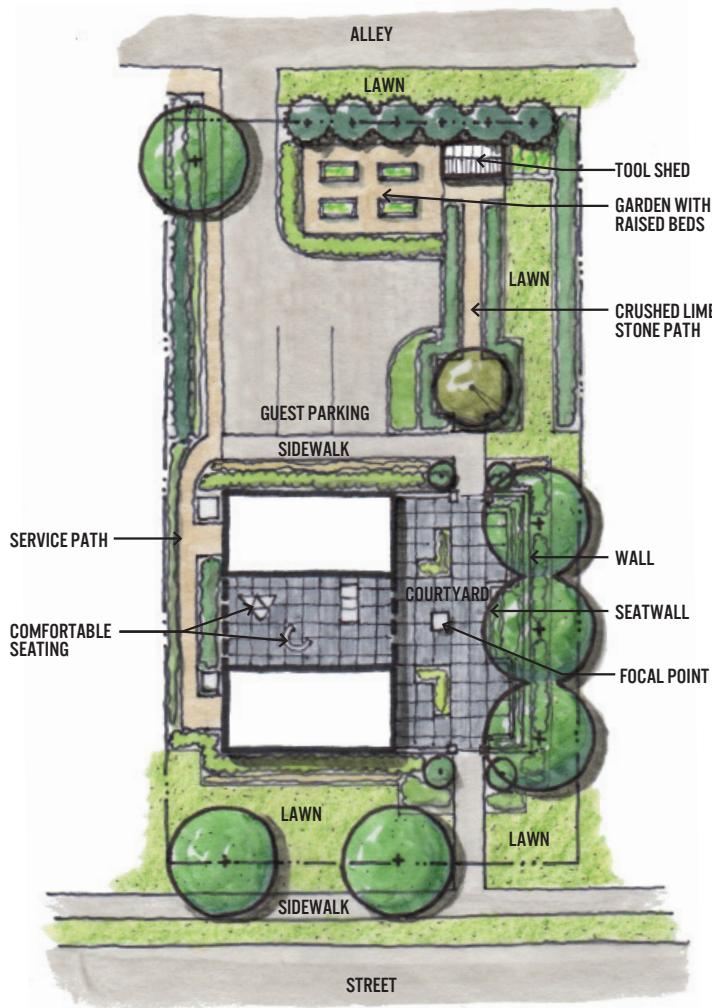
With the rural environment acting as a sheltered community, individuals will be able to take pride in their land, have a sense of ownership, and maintain personal space while still having help close at hand if need be.

The site plan for a rural Sensory Haus would vary based on location: microclimate, macroclimate, solar orientation, etc, and would leave room for interpretation from the individual residents and the community as a whole. However, a few things for a rural site plan would be key, including shared lawn space, or a shared "front yard", with all units having porches facing inward creating companionship at a distance and the opportunity to interact when warranted. There would also be a community gathering center located on site for activities for the residents and potential caretakers. Once again, the rural environment is not a new idea in the realm of Autism housing, however, how Sensory Haus comes in to play will change the game and the playing field.



A SUBURBAN ENVIRONMENT

INDEPENDENCE & SECURITY



Sensory Haus is able to sneak quietly into a pre-existing neighborhood and become a part of the social and environmental fabric. With two dwelling units placed on one site, allowing for companionship and solace without a live-in roommate, a small empty lot in an already established, comfortable and safe neighborhood is filled. This situation will allow for the possibility of close proximity to family members or an occasional caregiver, and will also encourage the individuals to interact within their community and enlarge their social and cultural sphere.

The units will have a shared courtyard in between each Haus to allow for easy interaction and bonding, while still having a safe place to retreat.



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AN URBAN ENVIRONMENT



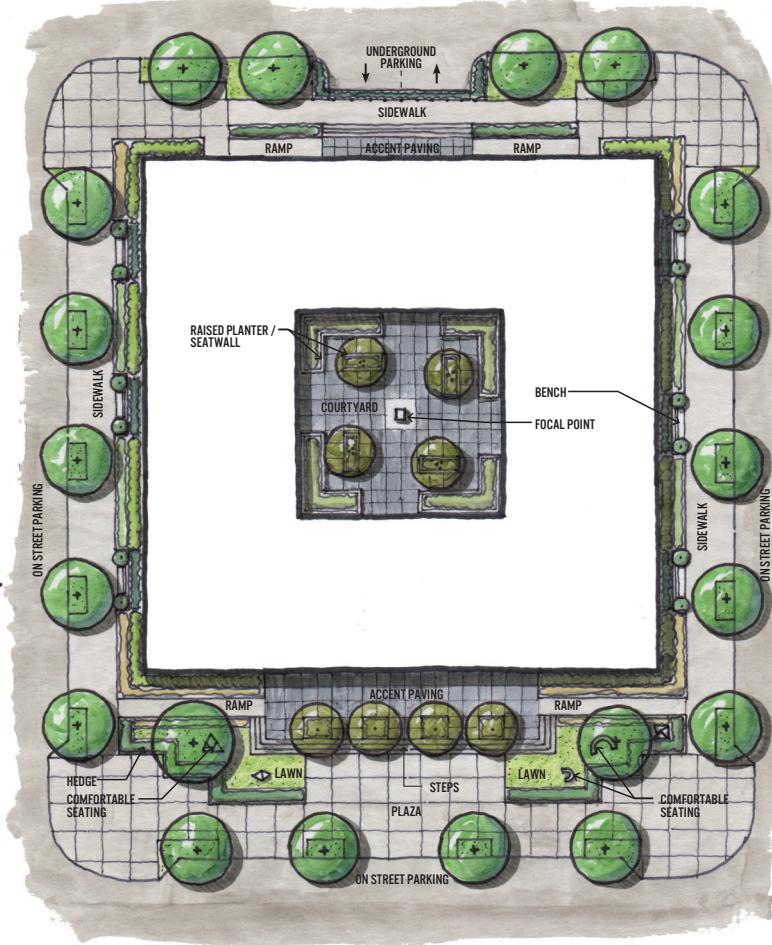
OPPORTUNITIES ABOUND

With an abundance of opportunities and a deep connection to culture and resources, we sought to find a solution for high functioning adults on the spectrum for urban living. Sensory Haus will be contained within a large city block in an urban environment and will have multiple layers of interaction for the residents and occasional caregivers. An urban Sensory Haus will be comprised of a concrete structure with open bays measuring 16'x32'. The bays will fill in overtime, as demand for housing escalates, with select bays being left open for community green space. By utilizing SIP construction, the bays will fill in quickly with little interruption to neighboring units and can be customized off site with the data gleaned from the Sensory Testing Center.

With a need to allow light into the units, the windows are kept high and compact, allowing for maximum privacy. The windows on the exterior of the building will be screened with a mesh panel allowing the incoming light to be dappled, while still retaining a sense of the outdoors.



AN URBAN ENVIRONMENT



GATHER HERE

An urban Sensory Haus implements way-finding via pops of color, with the exterior of the individual units being kept a crisp white, allowing for soft reflections of color and light. The colors of the gathering spaces signify excitement and public space while the white units bring to mind serenity and privacy.

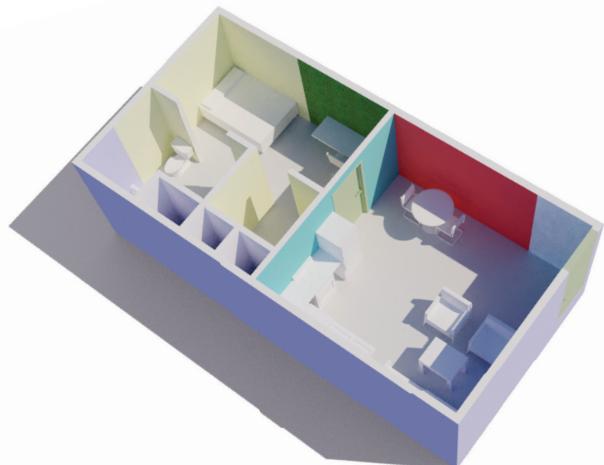
The gathering spaces for an urban Sensory Haus will be varied and will allow for interaction among a large group, intimate interaction, or alone time in the fresh air. Residents will be able to use the spaces as they see fit and can customize the areas closest to their living units in order to instill a sense of ownership and responsibility. The common spaces in an urban Sensory Haus will help to better prepare the individuals for interactions they shall encounter outside the walls of their living unit and on the city streets.

WHY THIS SOLUTION?



LET US TELL YOU

Sensory Haus aims to create a plan that can be implemented wherever and whenever a need arises. This idea allows an individual on the spectrum, family, friends, and educators to learn from sensory studies and gather knowledge about spatial interaction and spatial needs varying from person to person. Sensory Haus will not direct a mode of operation, it will merely be a guide to derive the ideal location and dwelling scenario for an individual. The aim for this plan is to create a methodology that allows for speed and efficiency when building a dwelling unit that is also customizable and addresses issues that are unique to individuals on the spectrum. Each scenario: rural, suburban, and urban, allows for a sense of independence while still having a close network for security, both physically and mentally. Home ownership is a dream, and the ability to have a place to call one's own is a sign that equality has been reached and value has been realized. A different way of thinking deserves a different way of living, a way that allows one to shine, be seen, be heard, and be an asset to the community.



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