Sense With Body: Art Therapy Center For Autistic Children

SP21_INT402-05_Thesis Book Qianrong Fu

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Project Overview





My project addresses the multisensory integration design of ASD children and makes them feel comfortable when they are being exposed to an unfamiliar environment. It's hard for Autistic children to interact and communicate with each other, and they have difficulties with integrating their senses. Autistic children's sensory experiences are different from normal people. In order to resolve the issue of the sensory design and its relationship to autisitc behavior, the program will be an art therapy center, which art therapy is considered as the therapy that can improve with imaging, groupworking, and stimulate motor skills. Although there is no certain cure for them, a proper therapy environment can help Autistic children interact with others and get into the society easier when they grow up.

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User Information and Research



User Introduction

Autism Spectrum Disorder is a disorder that has many aspects to it. It is a developmental disability caused by differences in the brain. Scientists do not know the exact cause of the ASD, and there is no exact method to cure it. However, uncontrolled sensory stimulation in the built environment can lead to overload of senses and cause significant discomfort to people with autism.

Executive Function

Information Processing

Repetitive Behavior

Sensory Processing

Autism Spectrum Disorder

Social Awareness

Verbal & Nonverbal Communication

Motor Skills

Perseverative Thinking

User Category

Hyposensitive

Mild (Common)

Hypotactility: The sense of touch deminished

Hypovision: Vision being affected and can only see the outline of objects

Hypohearing: Seeking out of the sound

Hypotaste: Always trying to put everything in mouth, may suffer drooling

Hypoolfactory: The sense of smell deminished

Need the sameness for the environment Good at finding patterns and shapes. Tend to repeat things they are doing Have certain activity routine. Sensitive to color contrast and saturation

Like the organized and modular environment

Might be very talented in other ways

Easily Distracted

unsafe

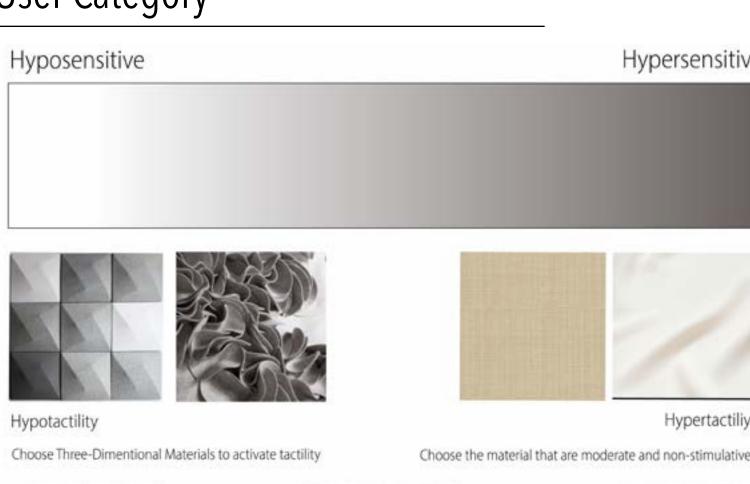
Some of them could be merged in the society when the emotion under control.

User Category

Hypersensitive

Hypertactility: Highly sensitive with texture

Tend to be tantrum or aggressive when feeling





Translucency & Transparency Allow to control the natural light in the building



Acoustic Material Interraction with the materials in the space and create sound.







Sound Absorbing Mateiral Absorb the sound and mute the space.

Hypersensitive



Hypertactiliy



The symptoms of autism become most notable between the ages of 2 and 3, if it can be diagnosed as early as 18 months and get proper therapy, the autism children will have less barriers when communicating with people and get into the society easily when they grow up.

For children who are diagnosed as hyposensitive, they might have problems with perceiving the sense of touching, hearing, tasting, smelling, and seeing. Their sensories are diminished and it's hard to get their attention. For people who are diagnosed with hypersensitive autism, they have opposite symptoms than hyposensitive. They are highly sensitive to texture, sound, or certain scenes. They will be easily distracted, and tend to be tantrum and aggressive when they feel unsafe



Program Introduciton

Art therapy has been used as tools of communication, self-expression, group interaction and diagnosis. It allows people to express feelings on any subject through creative work rather than speech. It is believed that it will be helpful for people who feel out of touch with emotions or feelings. By designing an art therapy center, I would like to help ASD people to develop the social behavior, the sense of self and the world, the emotion regulation and object relations.



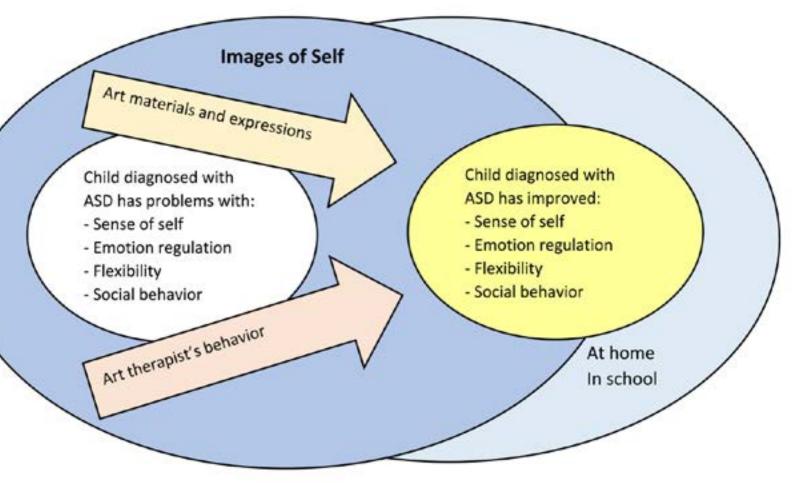


Fig. 1. Hypothetical influence from art therapy on the behavior of the child with autism.

Social	Sense of Self	Emotion	Object	Sence of the
ehavior		Regulation	relations	World

Visual and Body Movement Coordination Training









The StrechColor project is designed by Sean Ahlquist, it is a 2D surface with black and white drawing projected. By pressing to different parts of the surface, children can be able to digitally color it, just like color it with a mouse.

Saori Weaving Patience Training







Saori is an art therapy form by weaving. The process of seeing that the fabric grows through looping the loom can help with strengthen hands and fingers, develop eye-hand coordination, promote bilateral hand use, etc.

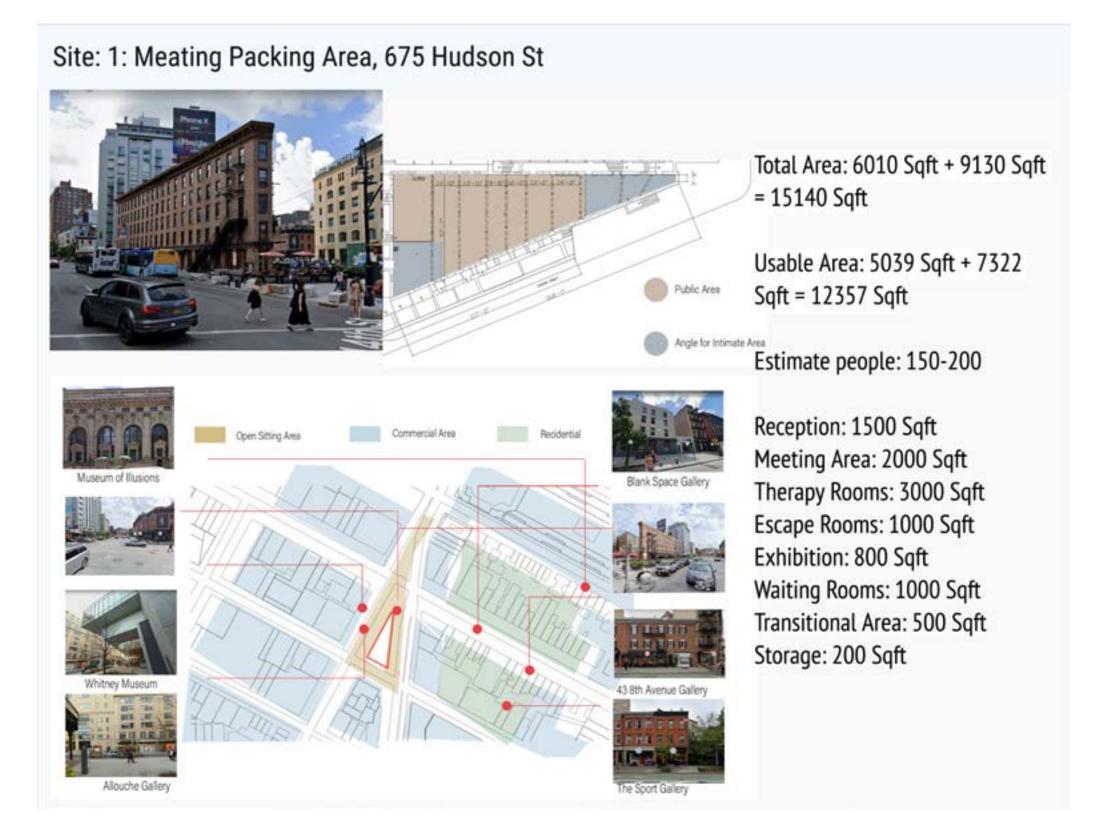
Music Therapy is the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship.It is a wellestablished allied health profession that uses music therapeutically to address behavioral, social, psychological, communicative, physical, sensorymotor, and/or cognitive functioning.

Interactive Environmental Acoustical Installation for Music Therapy



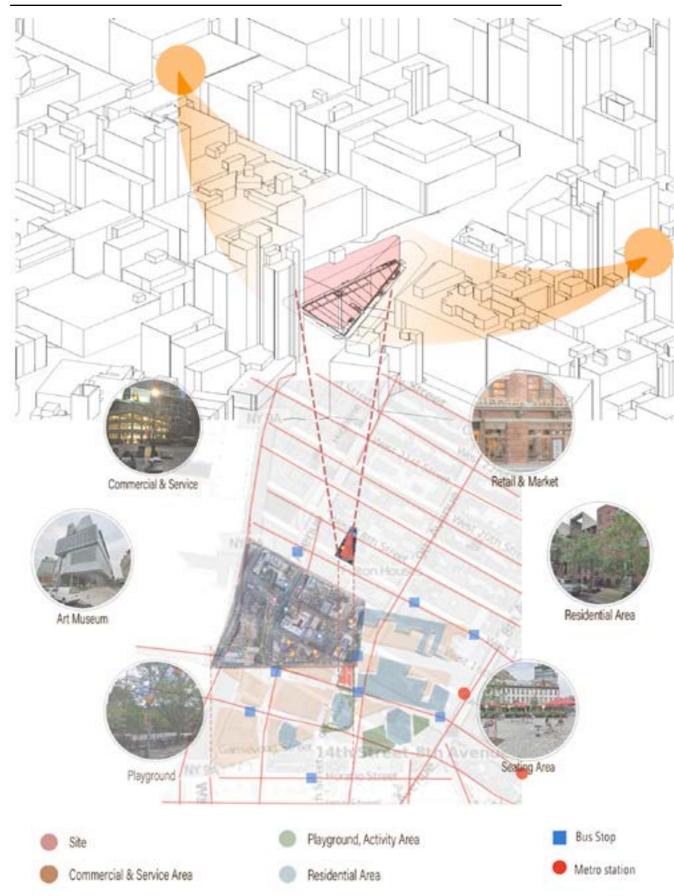
Site Documentation

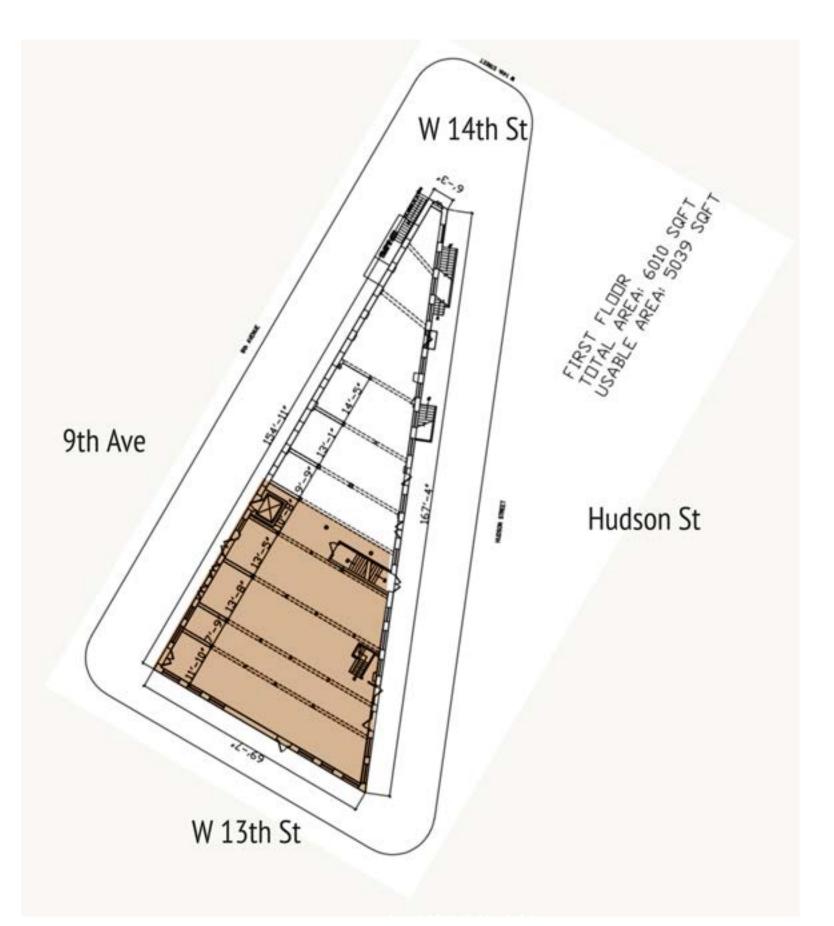
Site Location



Site Analysis

The site is located at 675 Hudson Street, meatpacking area. It is not attached to other street blocks, therefore it's easy for people to find it.. It is closed to art museums, and there are various services around, such as the commercial area, restaurant, playground. Also, there is an exterior open seating area. The transportation is convenient, I took half part of this building, and the design will occupy two floors.





Dangerous Supplement



Photos



The dangerous supplement is the project that helped to develop the program ideas. This is an art therapy box. By interacting with different parts of the box, children will get trained with different sensory coordination.

Eye-Hand Coordination

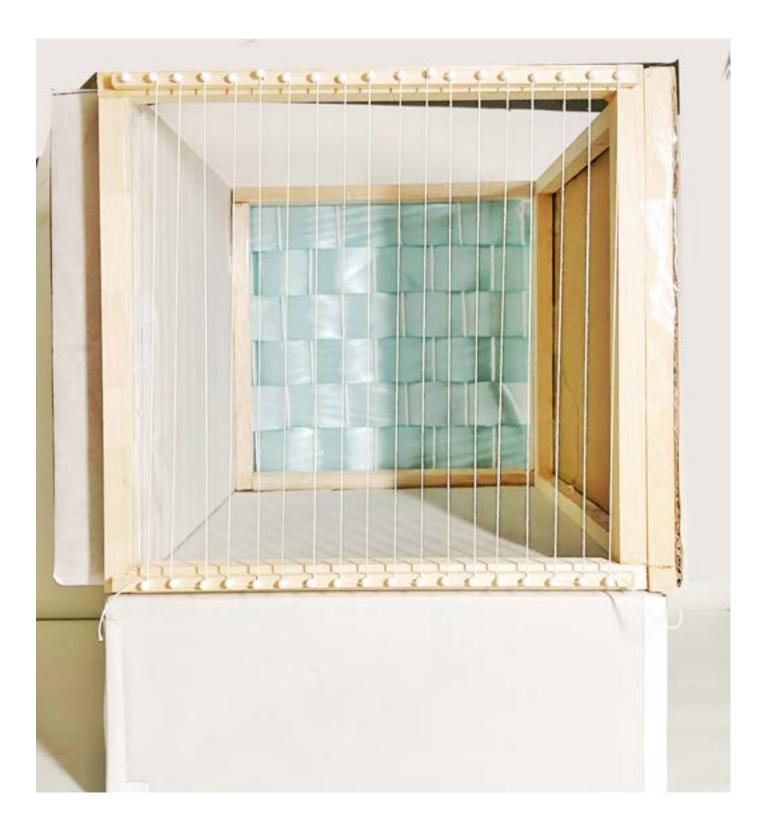




When touching the touch sensitive lighting patterns, they can create the patterns without making their hands dirty.

Ear-Hand Coordination

When children pluck the string, there will be sound played,



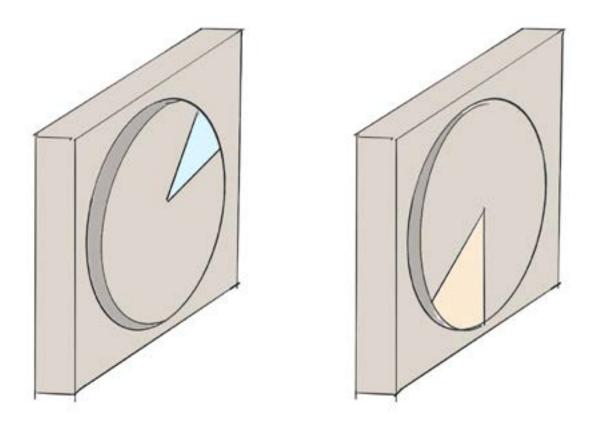
Saori Weaving & Patience Training





This part is a vertical loom with all the weft setup. Children can choose what types of fabric they wanted to weave in. There will be a storage drawer underneath the weaving loom

Reward Box



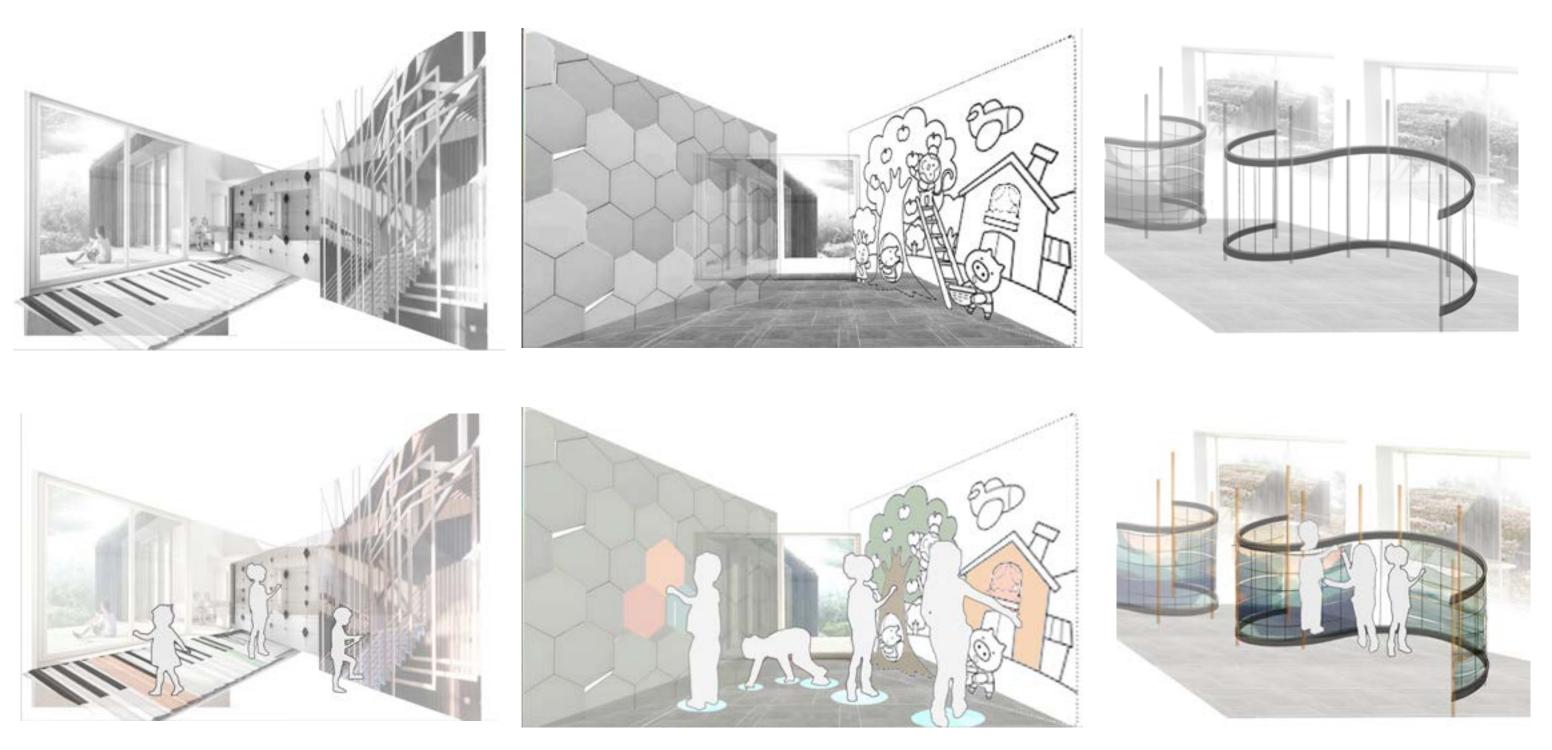
By rotating the wheel on the reward box, there will be different types of gifts come out.



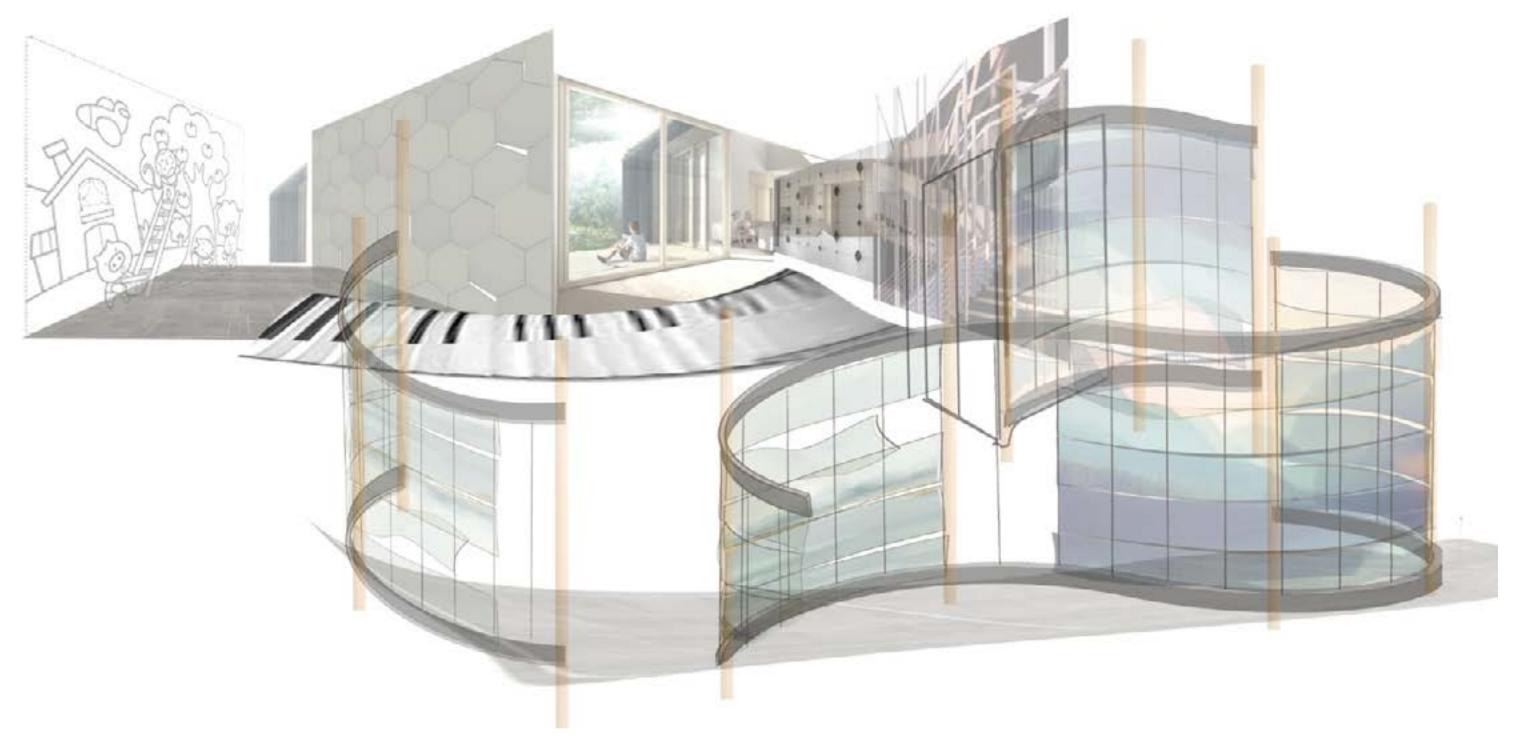
Diptych & Program



Diptych



The diptych helped with conceptualize the vibe of the interior space of different art therapy programs. With the children's activities, the space is activated and interactive.



Program Types



Reception

Signup Information



Evaluation Room Evaluate & Orient

Conference with Guardian for Further Therapy



Interior Loggia

Provided Intimate and Generous Space For Children Interacting with Each Other



Group Therapy Room

Get Children Involved in Group



Post Therapy Meeting Room



Rest Area

For Parents who are waiting for children to rest



Individual Therapy Room

For Autistic Children don't want to work with others



Allow children to calm down when feel overwelmed

Spatial Design



Art Therapy Program Types

In the common space which is shared by both hypersensitive and hyposensitive, there will be body balance training toys.

different sizes for Saori weaving looms, children can choose what size they want to work with.

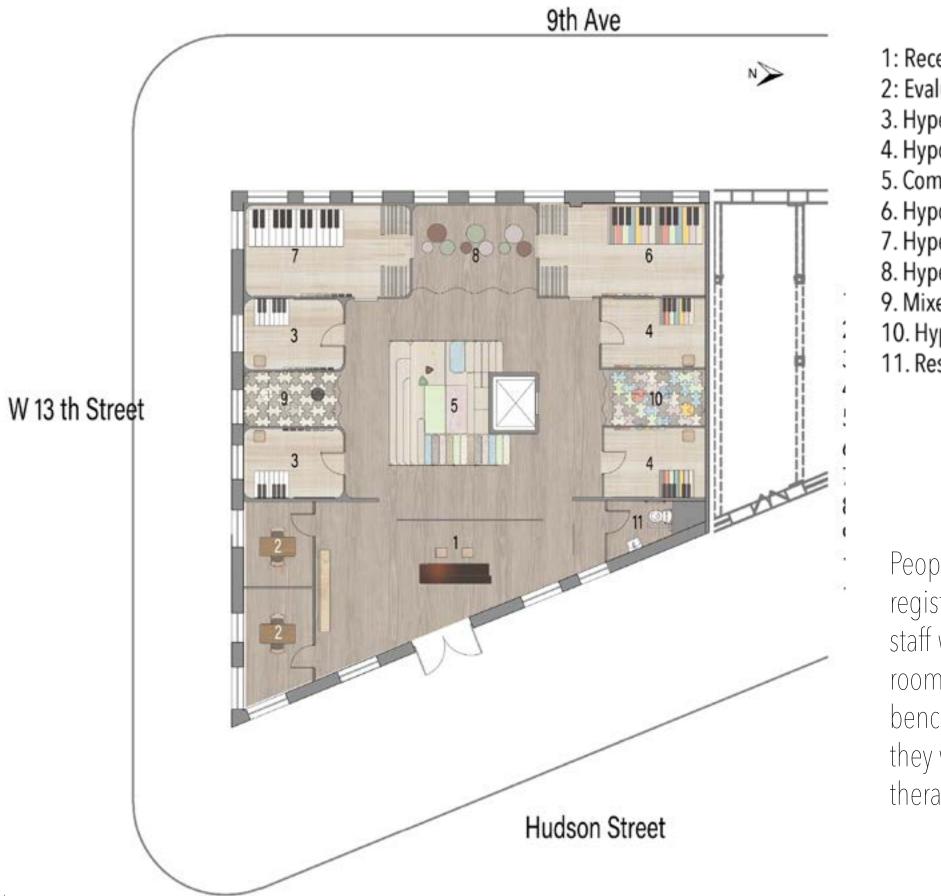
Saori Weaving & Patience Train

^{valance} Training

ory, Visuality & Bc

System of the acoustical installations, there will be light and sound played with their body movement.

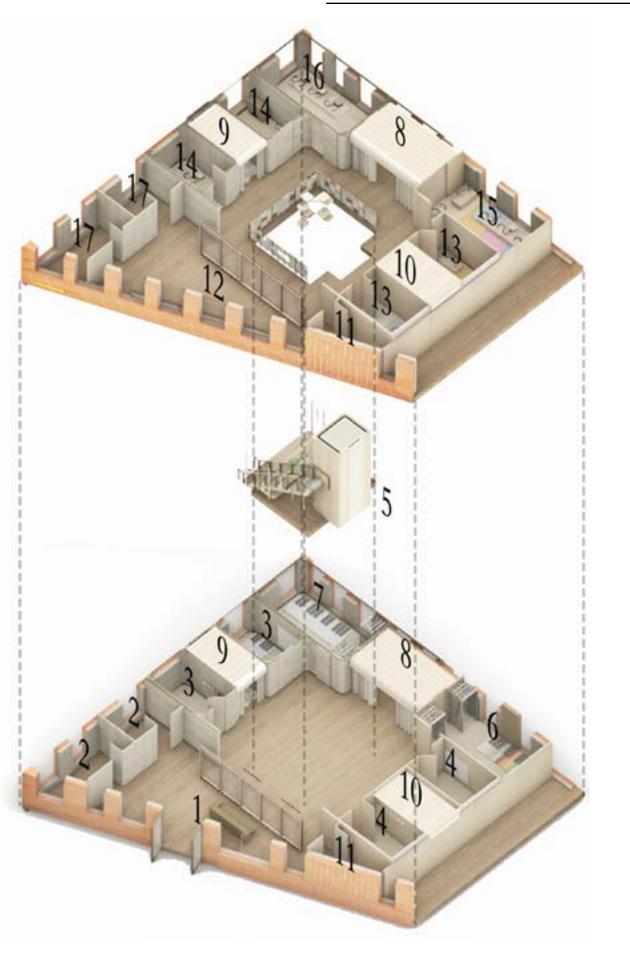
First Floor: Auditory, Visuality and Body Movement Cooperation



- 1: Reception
- 2: Evaluation Room
- 3. Hypersensitive Individual Therapy Room
- 4. Hyposenstitive Individual Therapy Room
- 5. Common Area
- 6. Hyposensitive Group Therapy Room
- 7. Hypersensitive Individual Therapy Room
- 8. Hypersensitive Neutral Zone
- 9. Mixed Neutral Zone
- 10. Hyposensitive Neutral Zone 11. Restroom

People enter from the gate, and they wil register in the reception area. Then the staff will lead them into the evaluation room on the left side. There is also a bench for waiting. After the evaluation, they will be guided to the different art therapy rooms

Second Floor: Auditory, Visuality and Body Movement Cooperation



- 1: Reception
- 2: Evaluation Room
- 3. Hypersensitive Individual Therapy Room
- 4. Hyposenstitive Individual Therapy Room
- 5. Common Area
- 6. Hyposensitive Group Therapy Room
- 7. Hypersensitive Individual Therapy Room
- 8. Hypersensitive Neutral Zone
- 9. Mixed Neutral Zone
- 10. Hyposensitive Neutral Zone
- 11. Restroom

The left side is designed for hypersensitive autistic children who need less stimulation, in which the color and material will be muted and moderate. The right side is designed for hyposensitive children who need stimulative environment, in which the color and material will be a bit more saturated and have more variation.

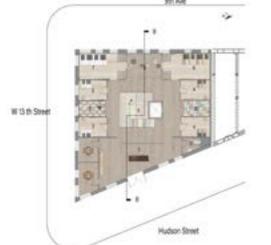




Building Section B



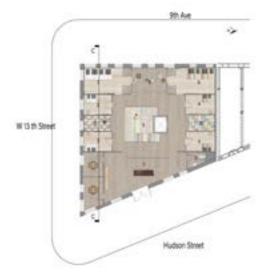




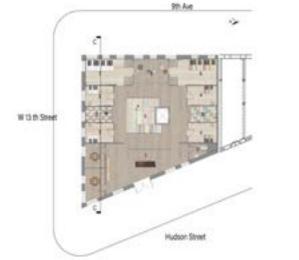
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Building Section D







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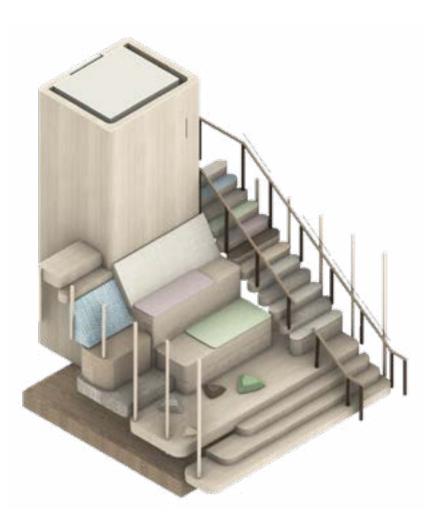
Interior Images

100 P 100 P 1

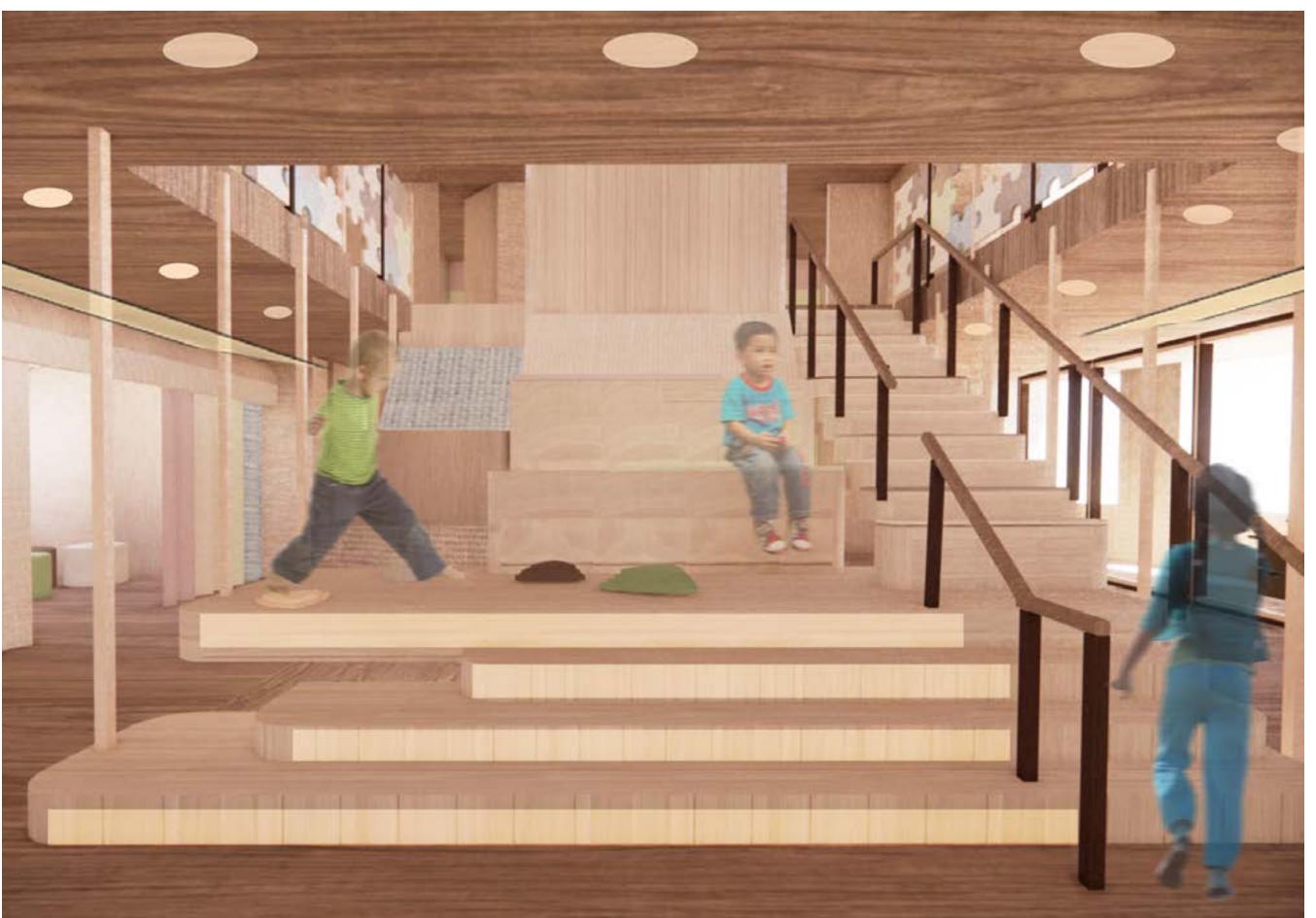








the interior loggia that was designed for mixing different groups of autisitc children together. There are different sizes of the stairs, and they sit together. There will also be artworks that were created by the children on the wall. The guardrail on the upper level will be the same pattern of the mat of the neutral zone

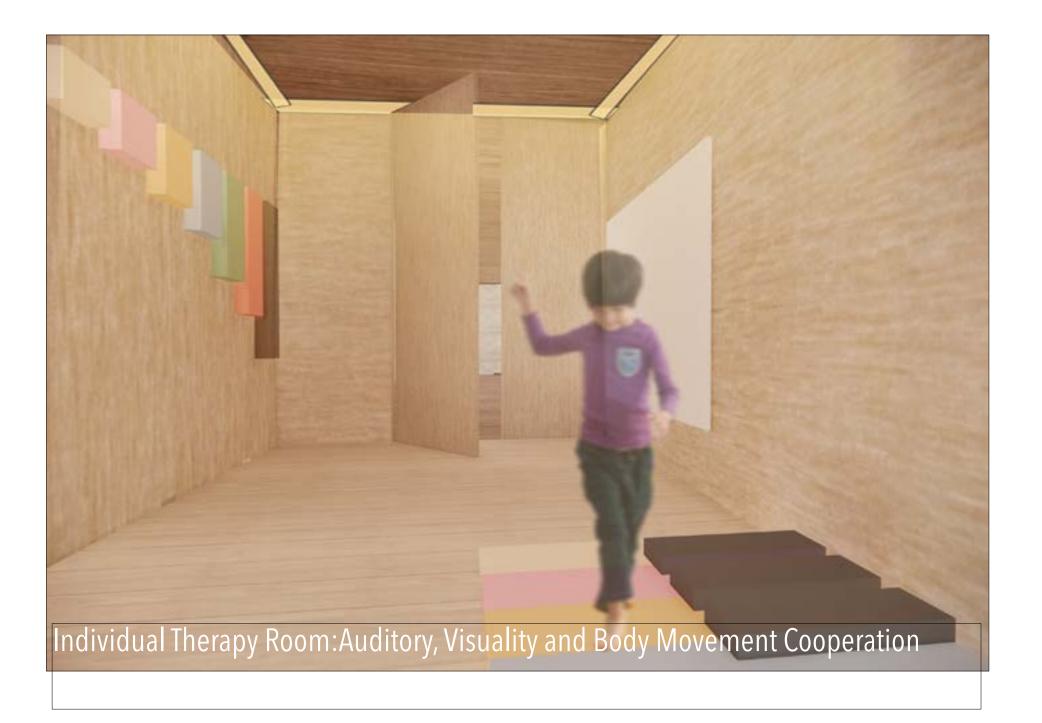


36 0 0 Hyposensitive Group Therapy Room: Saori Weaving & Patience Training





3/ Hyposensitive Group Therapy Room: Auditory, Visuality and Body Movement Cooperation







Hypersensitive Group Therapy Room: Saori Weaving & Patience Training

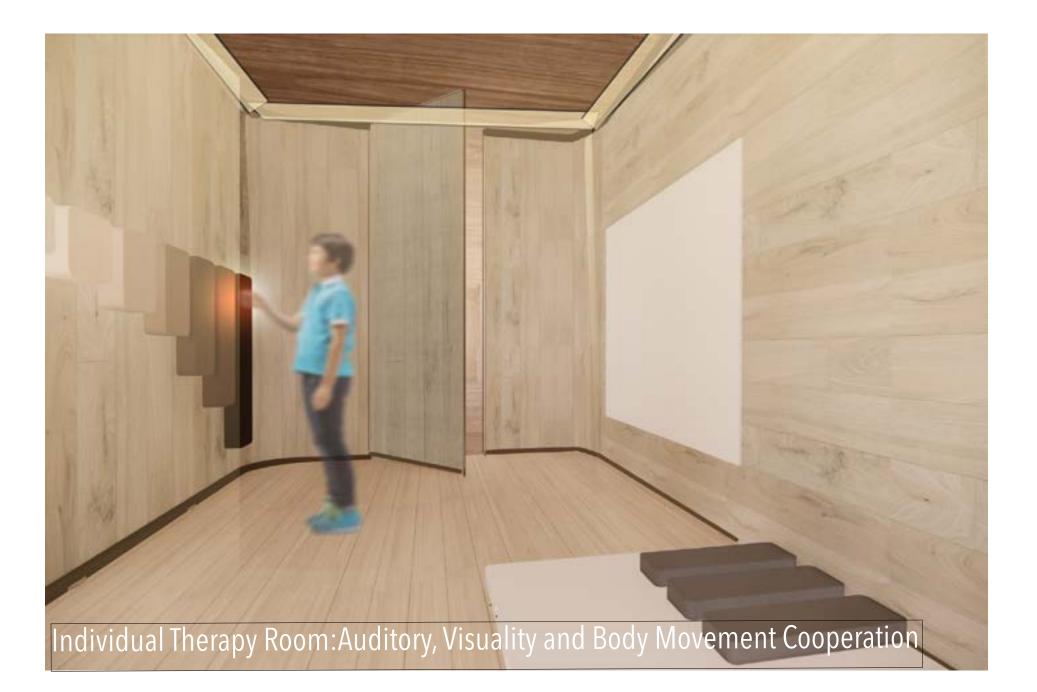
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e Group Therapy Room: Auditory, Visuality and Body Movement Cooperation









Project Summary

In recent years, the fast growing of Autism Spectrum Disorder has brought the attention for designers to think about how interior spaces are affecting autistic children. Autism Spectrum Disorder is a disorder that has many aspects to it. It is a developmental disability caused by differences in the brain. Scientists do not know the exact cause of the ASD, and there is no exact method to cure it. However, uncontrolled sensory stimulation in the built environment can lead to overload of senses and cause significant discomfort to people with autistic groups. Since art therapy is a effective way has been proved that can help with intervening the development of autistic behavior, and there is no art therapy center designed specifically aimed to autistic children, I would like to propose design strategies which multisensory integration into the spatial design to help autistic children to get along with themselves and others. In order to understand their needs, I have researched different articles, and did many precedent studies to try to make the space more intimate and interactive. The design of different programs from the "Dangerous Supplement" has helped me with developing the spatial program, and those therapy programs are being approved that can train austic children's motor ability and sensory integration. I want to bring peoples' attention to this special group of people that needs special treatment, and help austic children get involved in society when they grow up.



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