

SPATIALIZING EMPATHY

A K-8 LEARNING VILLAGE IN GEORGETOWN, SEATTLE

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Abstract

Spatializing Empathy: A K-8 Learning Village in Georgetown, Seattle

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The pressure of standardized testing in education has led to biased learning experiences and biased learning spaces. Tests and curriculum heavily favor two of the nine intelligence types and only the neuro-typical senses and physical abilities. This others and devalues students with diverse intelligences and those with special education needs. The forced-focus classrooms make for harsh learning environments for all students but especially for those with special sensory needs. Education space must be inclusive; promoting the agency and empowerment of all young learners. If learning space supported mental and physical growth of all inhabitants, students may have the emotional space to create empathetic bonds to themselves, their peers, and their community. Design for the minority, equalize the majority.



SPATIALIZING EMPATHY

A K-8 LEARNING VILLAGE IN GEORGETOWN, SEATTLE

Madison Carosso Brachvogel

Dedicated to my biological and architectural family
and my sweet Samuel John.

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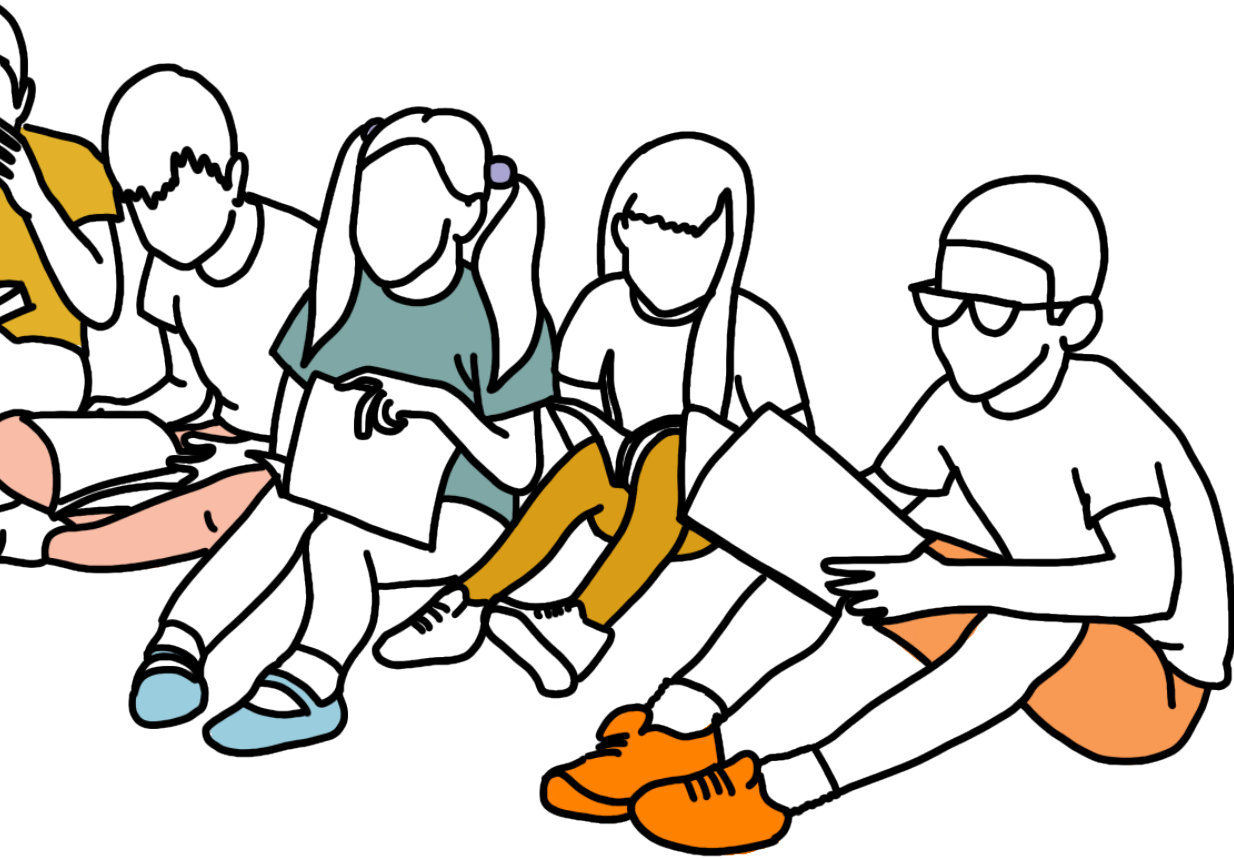


**PART I:
MIND V.
BODY**



CHAPTER 1 :

INTRODUCTION



In 1983 Harvard scholar Howard Gardner, published *Frames of Mind: The Theory of Multiple Intelligences* identifying different “intelligences” used to define the range of cognitive predispositions of human beings. It goes beyond identifying learning proclivities because these mental tendencies actually determine much more than that. They indicate how people work, relate and communicate throughout their life, not just in school. The intelligences are: spatial-visual, naturalistic, musical, intrapersonal, linguistic-auditory, bodily-kinesthetic, interpersonal, existential, and logical-mathematical. Gardner claims everyone has a combination of these nine intelligences within them with unique proclivity toward a mix of two or three of these intelligences. These natural cognitive inclinations drive how individuals understand, interact, and move through the world around them.

The issue this thesis addresses is antiquated classroom design that is the product of restrictive American education standardized curriculum. The argument is that alternative ways of thinking and feeling are not represented in either American curriculum standards or traditional school buildings. This one-size-fits-all standardization of curriculum is inherently biased and leads to spatial design that reflects that bias. Curriculum standardization unfairly favors linguistic and logical intelligences almost exclusively. The conventional reading, lecture, and testing hamster wheel of education does not allow those with other intelligences to feel seen or heard; prevents these students from the opportunity to thrive; and Undermines self-esteem. For many, this bias has caused frustration and self-doubt; with the student eventually falling behind in class and requiring more attention from educators, tutors and aids to make up that difference, which is not always available. Howard Gardner puts it best in his 2006 book *Multiple Intelligences | New Horizons*:

“Most schools throughout history have been uniform schools: students

are taught the same things in the same way and are assessed in equally similar manner. This approach is seen as fair—after all, everyone is being treated equal. Yet... this approach is fundamentally unfair. It privileges those who have strong linguistic and logical-mathematical intelligences, whereas it makes school difficult for the many among us who exhibit somewhat different intellectual profiles.”¹

Expanding upon Gardner’s seminal theory, this thesis argues that there are actually many more intelligences, in the form of sensories. This specifically relates to autism and the amplified sensories those on the spectrum experience daily. The aim is to design a school where curriculum and space work together to provide a safe and special place for all alternative intelligences and sensories. Arguing that space is the third teacher, this proposal of a carefully designed school will lift the pressure off over-worked instructors and encourage students to feel empowered in their education. This stronger sense of self and empowerment hopes to make mental and emotional space for students to foster empathy for themselves and others.

The vehicle of exploration in this thesis is a K-8 learning center designed around supporting student’s natural intelligences and sensories in efforts to foster sentimental and empathetic bonds among students. This design investigation will be based upon research into alternative curriculum, lessons and psychological theories, thereby determining the overall organization of space and distribution of program about the school. Through investigating the sensory needs of those with Autism Spectrum Disorder (ASD) and Sensory Processing Disorder (SPD), this research will take a closer look at materiality of learning spaces. Together the two lines of inquiry link the project just as the senses and the mind link the body. To reimagine education spaces through the lenses of empathetic and sensory design theory shines a light on alternative intelligences and sensories and hopefully leads to the development of an inclusive and diverse type of education community.

¹ Gardner, Howard. 2006. *Multiple Intelligences: New Horizons*. Basic Books. p. 56

This thesis argues that the physical space in which students learn influences their individual disposition and personal development. The goal is to design a K-8 education space that supports alternative intelligences and sensories to foster inter and intrapersonal empathy in students, meaning empathy for oneself and for others. The intention is to employ curriculum-integrated spatial design to optimize students' growth academically and personally. The development of a design framework based on the theory of multiple intelligences to be used in conjunction with existing Autism Sensory Design framework is the first step in the creation of the K-8 design proposal. The combination of the two frameworks creates a school that inclusively responds to intelligence and sensory needs.





PART II :
MIND



CHAPTER 2 :

ISSUE

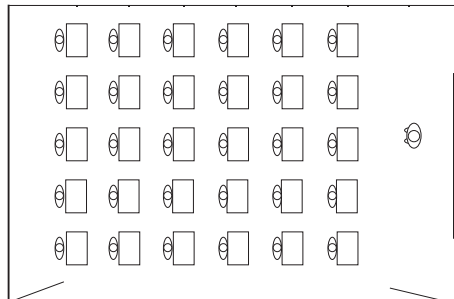


BIASED
CURRICULUM:

Linguistic /
Mathematical > Other
Intelects



BIASED
SPACE:



BIASED
MESSAGES:

Able - Body > Sensitive
Body

Neuro-typical
Senses > Sensitive
Senses

Fig. 3 - Diagram of Classroom Bias

The issue with the current state of schools is that many do not do enough to nurture the growth of all students in an equal way. Current learning spaces reflect the pressure of assessment through the use of efficient, boxy classrooms with separated workstations to force student's focus on the instructor and away from their peers. Here, pupils are a stripped of their intellectual individuality and their interests, strengths and passions go unfed. Students are not nurtured toward broader education goals, but rather, curriculum is forced upon them. Many of the physical issues about schools that this thesis addresses comes from budgetary restraints that are beyond the control of educators and school district¹. The harsh classroom are a symptom of a larger, rigid system but their atmospheres exacerbate underlying issues in learning bias and inequality. There are biases of the mind and body that provide an inequitable learning experience for all students. The favoring of neuro-typical and able-bodied students leads to barriers between students and thwarts their potential connections despite their differences. Magda Mostafa writes "If one were to look more responsibly and critically at these delineations of 'normal', which are almost invariably based on quantitative cut-off points of IQ and physical ability, would find a continuum of abilities and skills."² This thesis attempts to bring awareness to the diversity of students every school hosts, exposing who is behind the data points. This chapter frames the issue this thesis is addressing through the mental and physical bias students have experienced in their education and its social repercussions.

2.1 – MIND BIAS

Historically society has perpetuated a harsh bias toward a singular idea of smartness by favoring Linguistic and Mathematical types of intelligence.³ This bias of the mind has minimized the value of the other forms of knowing both in a school setting and professional adulthood. Elevating the linguistic and mathematical intelligence types has

1 Sheridan, C. 2019. Phone interview

2 Mostafa, M. 2014. "Expanding Normal: Towards a More Inclusive Approach to Designing the Built Environment"

3 Gardner, H. 2006.

caused an educational push for efficiency and standardization in curriculum. The pressure of testing performance has resulted in curriculum that moves quickly and rarely forgives falling behind.⁴ To cover all the content required for assessment educators have had to streamline their lesson plans and cut diverse learning activities that might take a little extra time.⁵ For students the result is a mainly lecture-based education that discourages peer interaction and demands quick comprehension.

Not every student's mental health is the same. There are many young learners in the US that struggle with serious issues and trauma. Bullying, abuse, homelessness, hereditary psychological challenges are all common.⁶ These issues have always been common but they have been ignored or hidden. Classroom spaces should be places where students feel safe and accepted. If they do not have access to that kind of support outside of school, the education space should provide it. There are many personal stresses outside of school that can be brought to the surface in times of educational frustration, adding to the issues of mental health. Los Angeles 6th grade teacher says "I try to make my classroom as Zen as possible, because who knows what kids are going through."⁷ The space in which students learn is incredibly important to their mental health and thus their focus. If they are distracted or frustrated by their space but do not have the tools to verbalize their frustration it comes out in behavioral issues that are punished, not treated with empathy, historically. Many students who are among the general population classes are actually moving through the education system with learning disabilities like ADHD and Dyslexia.⁸ These students are in higher numbers than we think but not always given accommodations depending on severity and medical resources.

4 Pauls, A., 2019. Phone Interview

5 Pauls, K. Phone Interview

6 Steckel, M. 2019. Phone Interview

7 Stoeckel, M. 2019. Phone Interview

8 CDC. 2019. <https://www.cdc.gov/ncbddd/adhd/data.html>

2.2 – BODY BIAS

Just as there are many issues that have arisen from the mental bias in schools, there are many more in the physical realm as well. The high-efficiency classrooms are not habitable for every learner in a mental capacity as well as physical. Learning disabilities are popular just as physical challenges but they are just not as visible. These spaces are designed to accommodate the masses. Meaning, able-bodied, neurotypical students born without unique sensory or physical challenges. Yet even in a system where 14% of all US public school students receive Independent Education Plans (IEPs)⁹, 1 out of every 59 children are born with Autism Spectrum Disorder (ASD) and roughly 10% of school-aged students struggle with Sensory Processing Disorder (SPD)¹⁰ students are often forced to into Gen Ed classes.¹¹

The act of placing students with Special Education Needs (SEN) into general population courses and classes is called “mainstreaming”.¹² There are proponents for the approach as it can be good for sensory students to build social skills and prepare for the real world outside of the school.¹³ Just as special education needs are vast and diverse, so are the solutions. Mainstreaming might inhibit one child’s ability to learn just as it might enhance another’s. Generally though, inclusion model proponents agree mainstreaming students is productive for these students socially and unproductive academically. This thesis aims to find a compromise so that all the different students, in their varying severity of special needs, can be accommodated. There should be a balance between mainstreaming and self-contained teaching because there are benefits to both. Having the space that accommodates for both ends of the spectrum of this issue and accommodate for the flexibility in between.

For sensory students who are forced to mainstream, the high levels of visual and auditory stimulation in typical classroom conditions can make it doubly hard for them to

9 CDC. 2019. <https://www.cdc.gov/ncbddd/adhd/data.html>

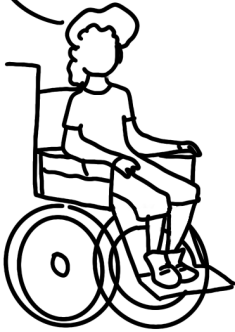
10 CDC. 2020. <https://www.cdc.gov/ncbddd/autism/data.html>

11 Sheridan, C. 2019. Phone Interview

12 Sheridan, C. 2019. Phone Interview

13 Henry, C. 2011. *Designing for Autism: The Neuro Typical Approach*

Wonder where the elevator is...?



If I don't get it, am I dumb?



Math is cool, but that was boring.



What are you doing this weekend?



now I can focus



Math is so much better in music form

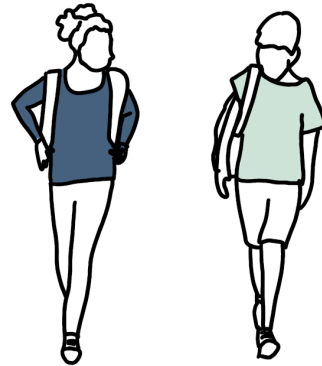


Fig. 4- Diagram of the effects of mental and physical bias

learn and may cause an increased frequency and severity of behavioral issues begin.¹⁴ Each educator has their own way of approaching these subjects and that comes with its own layer of bias. SEN students are all so unique and their needs vary from child to child.¹⁵ The perfect education plan of one student will be different for another but budget constraints trend toward mainstreaming. This issue is sensitive and tricky but often time inclusion in a classroom means that the challenge grows exponentially for the teacher as the class sizes also enlarge.¹⁶ The bias toward designing for the general population students excludes so many other types of students and all the individualities in between.

2.3 – BARRIERS OF BIAS

The barriers, both physical and psychological, of curriculum bias creates barriers between students of diverse mental and physical backgrounds. Designing for the perceived mind and body majority excludes certain members of the student population that already feel different than their peers and creates an environment where students are not encouraged to ask for help with their mental health and abilities. The bias toward able bodied, neuro-typical students excludes more students than originally thought and puts physical and virtual walls between students who could otherwise create a relationship. Physically, when space does not accommodate and treat all inhabitants equally it limits the natural social interactions that can occur spontaneously. These unstructured moments during passing period or before and after school are vitally an important part of student's social growth.¹⁷ If students are excluded from moving through the space together, it is at the cost of these special moments of interpersonal growth. This thesis envisions a school community that breaks down those barriers, physical and immaterial.

14 Pauls, A. 2019, Phone Interview

15 Mostafa, M. 2014. Architecture for Autism: Autism ASPECTSS in School Design. p 146

16 Saheebi, N. 2019, Phone Interview

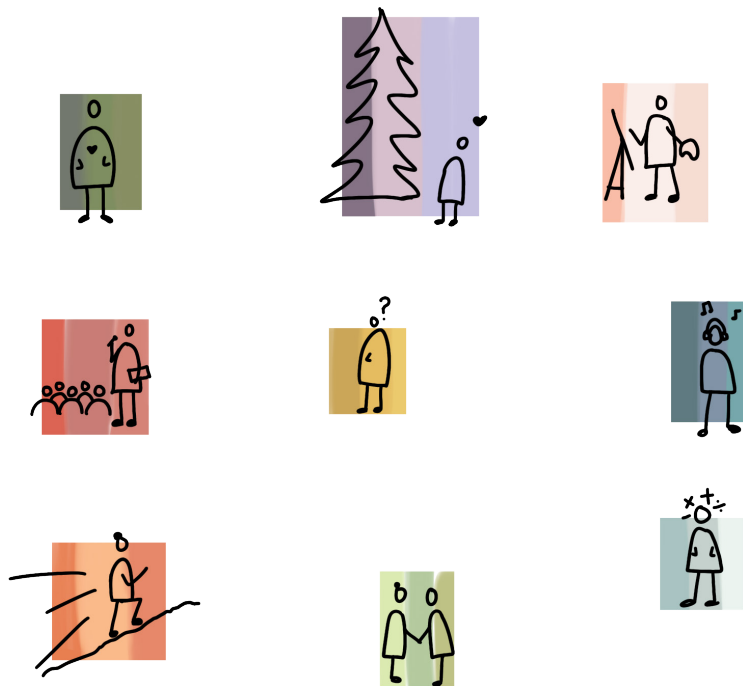
17 Perkins, B. Building Type Basics for Elementary and Secondary Schools. p. 13



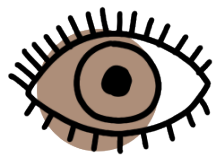
CHAPTER 3 :

ARGUMENT + RESEARCH





Mind



Body

Fig. 6- Icons developed for the multiple intelligences and bodily senses

3.1 – DESIGN FOR THE MINORITY, EQUALIZE THE MAJORITY.

Since there is neurophysiological evidence supports the claim that empathy is developed in childhood educators and designers should seek to build learning communities that are fully inclusive places where all students feel seen, heard and supported in their academics and personhood. Through inclusive design strategies all students will have the same ability to navigate and interact with the built environment. Through inclusion, students should feel seen and empowered in their physical environment, giving them independence and agency in their educational environment and their mental growth. A school that includes every student highlights the diversity of experiences in a positive way. Inclusive educational space allows students to see and understand their peer's differences and challenges familiarizing them with one another so they can learn from each other. Students form a community the moment they arrive on campus, "often times students know of each other throughout their entire education as they begin together."¹ a school designed around empathetic bonds could allow this community to grow and flourish even more. The goal is that students, regardless of mental and physical challenges, feel they are an equal member of the school community and can access all its parts as easily as neurotypical students. Curriculum and space should work together to achieve broad education goals by supporting the mind and body of all learners. If students feel seen, heard, safe and supported in their education, maybe they will have the room to form strong empathetic bonds for themselves and their peers.

3.2 – CURRICULUM + THEORETICAL FRAMEWORK

The argument for inclusive educational space is framed through the investigation of curriculum for both general education students and sensory-specific SEN students. Viewing space as the third teacher, the research into MI curriculum serves to inform design so academic lessons and space work together to create a holistic learning environment for the mind and body of every student. Research broken into the two camps of mind and body

¹ Stoekel, M.2019. Phone Interview.

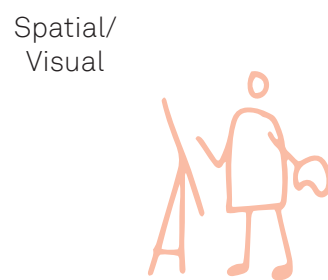
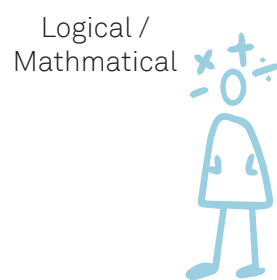
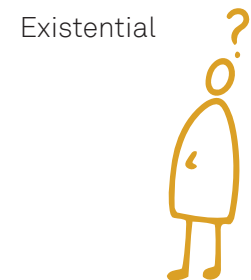
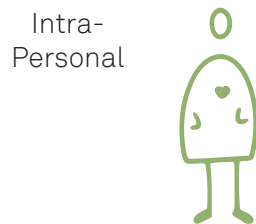
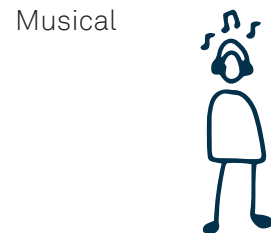


Fig. 7- Icons developed for the multiple intelligences, explained.

this chapter, like the previous, will frame the argument through those lenses. The sources and precedents indicate the tricky truth of education design: that although complicated, it is highly impactful on learning.² There is a battle between specificity, flexibility, and generalization that will be particularly difficult in this thesis because the needs of students vary so widely, even within the individual research categories. The goal is relating them to one another create space for empathy among students from all stages, intelligences, abilities and sensories through spatial design. Some of the research relates directly to spatial implications, such as the ASPECTSS™ of Magda Mostafa, while other sources are completely disconnected from the field of built environments and are actually educational theorists and professionals. The essential of the theoretical investigation is seeing where the two camps of mind-learners and body-learners can interrelate and come together. Linking the curriculum of both groups and physical space to create empathetic atmosphere through spatial design is the main goal of this proposal.

3.2.A - MIND

Multiple Intelligences (MI) is a term derived from the research of Howard Gardner, Professor of Education Psychology at Harvard. His 1983 book of *Frames of Mind* was the first iteration and publication of his multiple intelligences theory. Throughout this thesis they will be called “intelligences” or MI. His first MI work and subsequent research on his theory of multiple intelligences will be a crucial component of the literature review and form the basis for a spatial MI-inspired interventions throughout the whole school design. Howard Gardner’s Theory of Multiple Intelligences defines a spectrum of 9 intelligence types that every person possesses but individuals combine and use them in highly personal ways.³ Gardner’s first MI book, *Frames of Mind*, was published in 1983 and subsequent evolutions of his MI theories were published in 1999 with *Intelligence Re framed: Multiple Intelligences for the 21st Century*, and a third in 2006 with *Multiple Intelligences: New Horizons*. The later versions honed the details of his theory to respond to global technological changes. The scope was also broadened, recognizing a previously

² Stoeckel, M. 2019. Phone Interview

³ Campbell L. Teaching and Learning through the Multiple Intelligences. (2004). p. xi

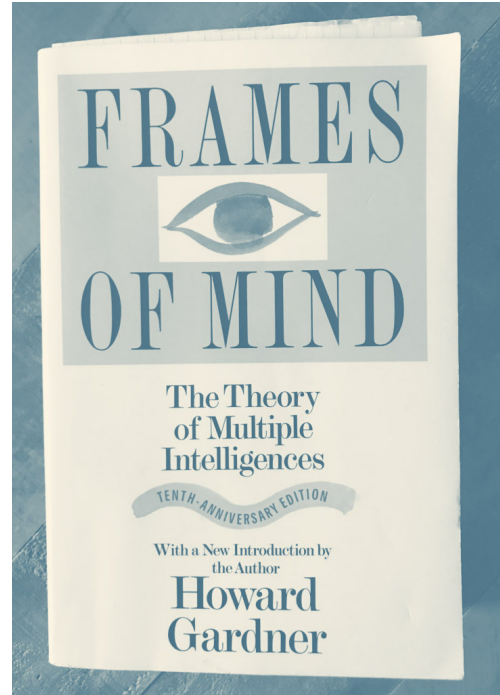


Fig. 8 & 9 - Howard Gardner and the cover of Frames of Mind



Fig. 10- Library at the New City School in St. Louis, Mo.

undefined intelligence, Existential. Although Gardner did not initially set out to publish his work as an educational theory, but a psychological one.⁴ It was never his intent for teachers to incorporate MI theory into the classroom and curriculum, but it quickly gained popularity in educational spheres around the world after its release and led to a more education-specific offshoot of his previous works: *The Unschooled Mind: How Children Think and How Schools Should Teach* in 1991. Educators responded to Gardner's work because, though unintentional, it echoed the work of early alternative educational pioneers like J. Dewey and M. Montessori and the like who were highly influential. However, the MI theory was more modern and had tangible nomenclature for educators to implement systematically.⁵ Gardner and his predecessors have many consistent elements to their alternative educational theories. The core ideas are (1) the traditional, narrow scope of passive learning methods and discipline management in classrooms is ineffectual and detrimental, (2) curriculum should be intimately connected to real life and nature, (3) instruction and learning should be process-oriented, not assessment-driven, (4) learning should be individualized and inquiry-based to activate curiosity and build critical thinking skills, and lastly but vitally, (5) teaching ought to be through multi-modal lessons that teach students self-awareness, independence and draw out student's interests and potentials.⁶

The ways of integrating MI theory into teaching are endless and range on a vast scale.⁷ However, there are numerous schools based on the ideas of Schools that emerged after his first publication offered a wide range of interpretations; such as, schools that grouped students based on intelligences; schools that focused on just one intelligence; schools that developed new types of assessment for intelligence curriculum; and schools who believed that the best education was a mixture of students with different cognitive profiles.⁸ The educational implementation of MI theory to which Gardner devotes the most support is multiple representations of key concepts. He states; "Understanding is far more likely to be achieved if the student encounters the material in a variety of guises and contexts. And the best way to bring this about is to draw on all of the intelligences that are relevant

4 Gardner, H. 2006 p.49

5 Gardner, H. 2006. Multiple Intelligences: New Horizons. p. 50

6 Achkovska Leshkovska, E & Miovska Spaseva, S. (2016). p. 65.

7 Campbell L. Teaching and Learning through the Multiple intelligences. (2004). p. 332.

8 Gardner, H 2006. Multiple Intelligences: New Horizons p. 53

to that [topic].”⁹ Which means to say, students do not have to be forced into their different MI boxes, physically separating them like some schools had done, but rather curriculum should decide on a few main components and teach those in a multitude of ways. Spatially, this means that each classroom and the school at large absolutely must be able to respond to all the different intelligences and the lessons associated with those learning modes. The reasons he gives for preferring this application is as follows:

“First, approaching topics in numerous legitimate ways ensures that [the topic] will reach more students. Some students will learn from linguistic entry points, others from artistic or personal or logical entry points; indeed, some will learn one subject best via one entry point, another subject via another entry point. Second, these multiple approaches to a topic convey to students what it is like to be a disciplinary expert... Finally, through these multiple approaches, one activates different clusters of neural networks. To the extent that numerous neural networks are activated, and eventually connected, one obtains a solid and enduring mental representation of the topic in question.”¹⁰

The MI theory and the subsequent works and institutions inspired by it—such as, The New City School in St. Louis, Missouri and the curriculum, lesson plans written by Thomas Armstrong and Brian A. Haggerty served as the base for the development of program elements in this thesis and the selection of the proposal’s site. These alternative types of schools and the many iterations similar to them were also inspiration for the program breakdown and the spatial relationship between main elements. The spaces between main program elements are usually where bodily bias is the most visible within a school environment so incorporating theory surround ASD education is another essential component of this theoretical framework.

3.2.B - BODY

In the education of SEN and specifically ASD students there is so much variance in methodology due to the vast range of needs each individual has. Despite the starkly contrasting two main arguments of self-contained versus inclusion, there seems to be one common and life-long goal; the empowerment of SEN and ASD students toward independence and as much self-sufficiency as possible.¹¹ The dichotomy of individualization versus generalization in curriculum can also be reflected in physical design. It becomes the dichotomy of shared learning space versus separated.

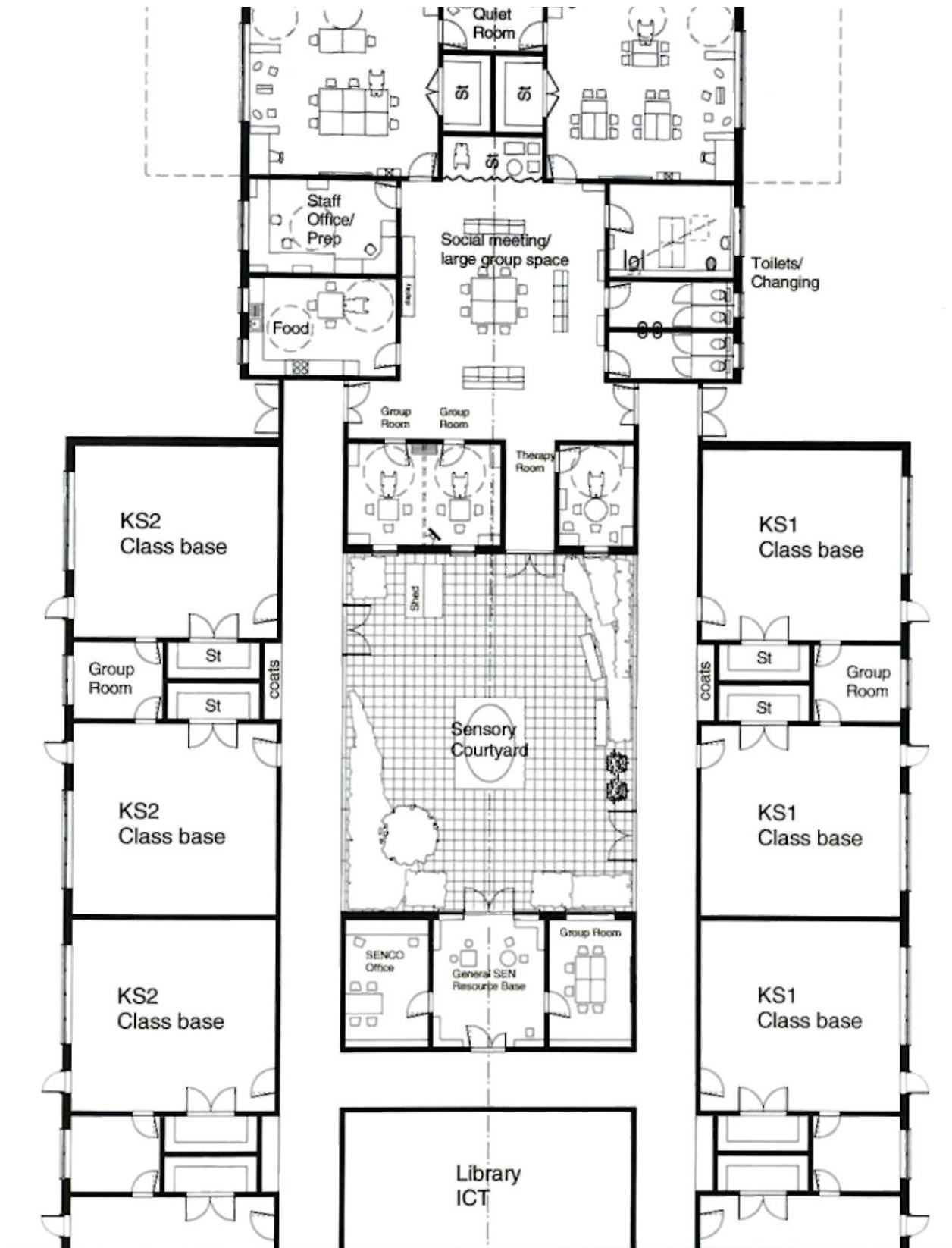


Fig. 11 - An example plan of a SEN classroom adjacent to gen ed classrooms

Sensory Zoning and Circulation Schemes

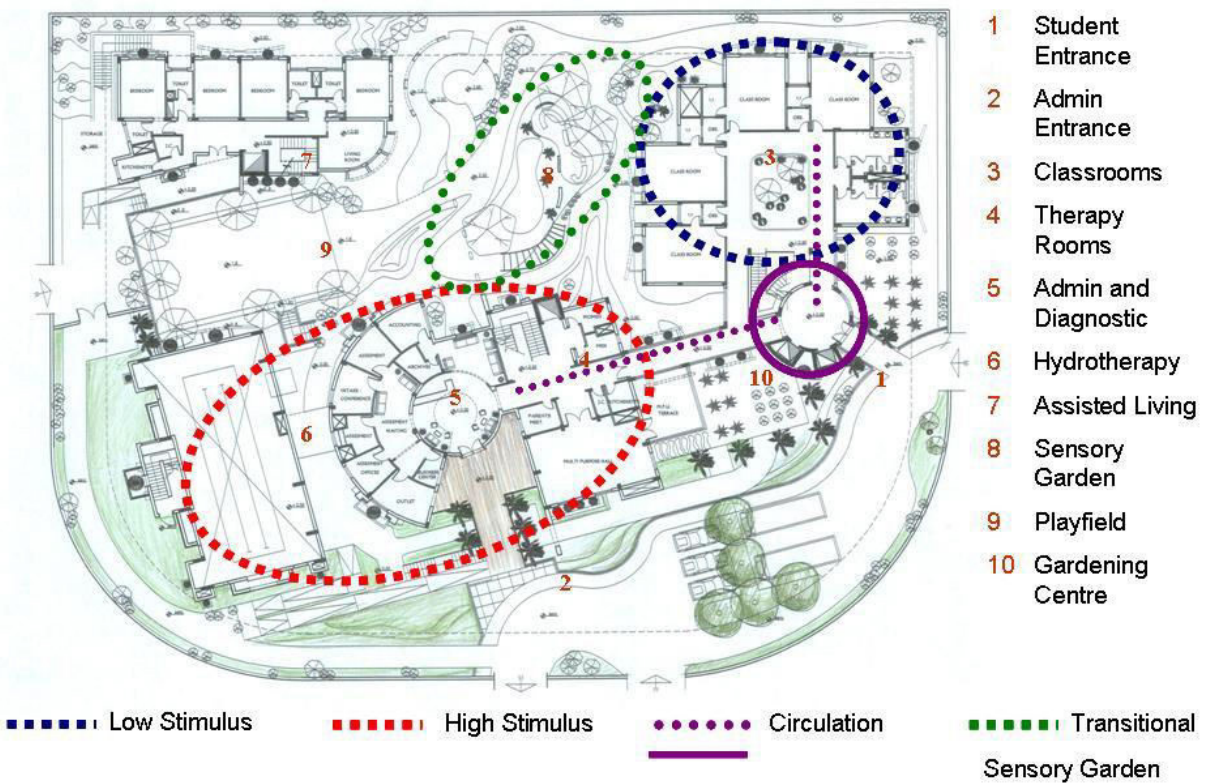


Fig. 12 - Proposal for a school for autism by Magda Mostafa

Aside from the debate of ASD curriculum there are some commonalities between MI curriculum and ASD curriculum. Autism and special education utilize multi-modal lessons as well, out of necessity for different learning styles, varied and personalized ways of teaching highly sensitive students. The SEN curriculum is just as vast and varied as the spectrum of its students. Many methods are used in the instruction of students on the spectrum that relate to those taught in general education classrooms but there is some modifications and more acute attention is required for the effective teaching of SEN students. The teaching of SEN students differs from child to child. There is a range between extreme cases, 1:1 or even 2:1 teacher to student ratio and the students who just need a little extra help and time on general education materials. Often times there is a mixture of accommodation and mainstreaming.¹² Many times the curriculum calls for small group work among SEN students. Ratios in a self-contained SEN classroom 1:4 - 1:10 are common.¹³

The needs of SEN and ASD students are so varied that it is difficult to provide a full scope but the learning activities are based on their age and abilities but the academic material is adapted to fit their needs. A range of approaches is used along with varied activities, scheduling, and pace for individuals and groups of students. Whenever possible students are grouped not only to reduce monetary resources expended but also to improve on the socialization of students.¹⁴ Peer-to-peer learning is an opportunity for students of SEN needs to socialize with the larger student population. The benefits of the inclusion model is that the general population of students is aware of and in contact with SEN students at all times. Often times students know of each other throughout their entire education as they begin together in kindergarten.¹⁵ Many of the teaching models for SEN students is in line with the framework of education through MI theory which is why having these two types of schools on one campus is an educational and social benefit of this proposal.

12 Saheebi, N. 2019. Phone Interview

13 Building Bulletin 102. 2008. Designing for Disabled Children and Children with Special Education Needs. p. 14.

14 Mostafa, M. 2008. An Architecture for Autism: Concepts of Design Intervention for the Autistic User. p. 203.

15 Stoekel, M.2019. Phone Interview.

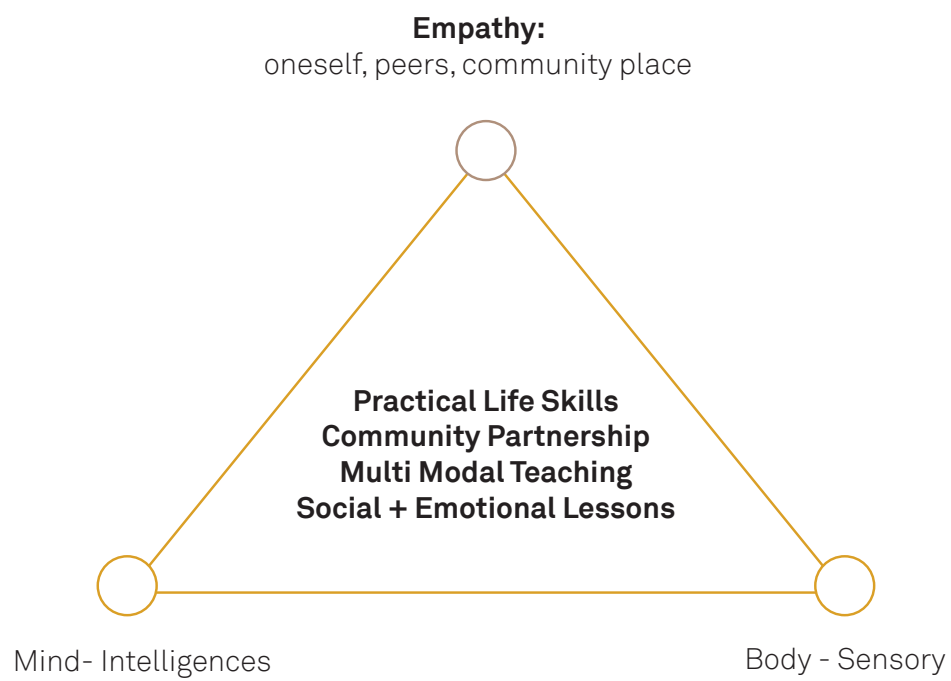


Fig. 13 - Diagram of shared curriculum aspects between two student groups

3.2.C - MIND + BODY

The commonalities between the mind and body sources from the previous section are encouraging in the effort to combine these two types of learning spaces in one learning village. The particular educational aspects that both MI and ASD curriculum share at their cores is (1) rooting education principles in a tangible, real-life scope both in terms of adulthood and natural environment (2) strong community engagement, (3) cross-curriculum and multi-modal lessons, and (4) social and emotional growth is just as vital as broader academic goals. Having these elements at the core their educational goals binds the mind and body of the school but having spaces that reflect these values will demonstrate for students that they are seen, heard, understood and valued. The idea the diagram above is trying to convey is that through the healthy sharing of curriculum and space these two types of learners can have the emotional capacity to form deep empathetic bonds to their peers and their community.



CHAPTER 4 :

PROPOSAL



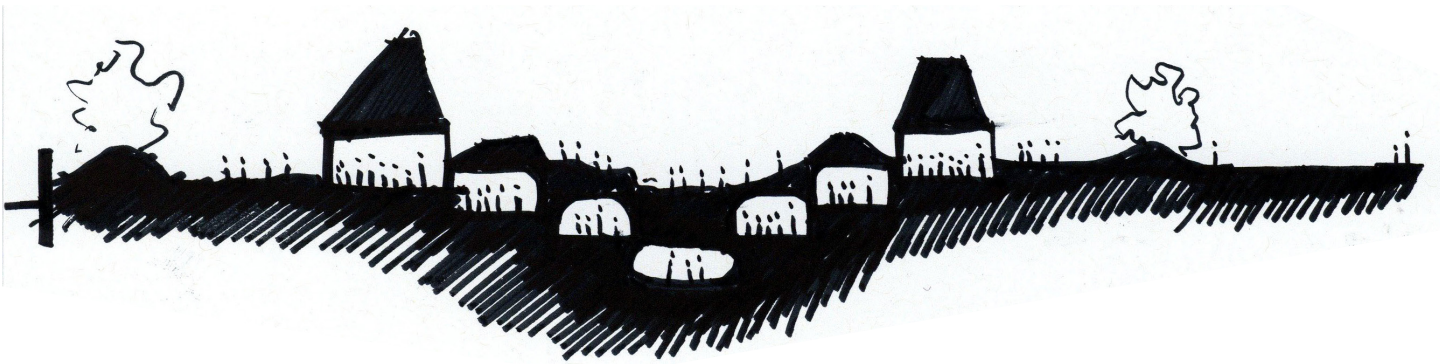


Fig. 15- Parti of Learning Village for Georgetown

4.1 – LEARNING VILLAGE

The proposal is for a kindergarten through 8th grade general education school and a kindergarten through 12th grade special day school for sensory students with temporary respite care. The approach is for the school to be organized and scaled like a village or small town to act as an intermediary between society and the school. The little learning village acts as a buffer for all students but for ASD students specifically, to ease their transitions into mainstream schooling and public life and better prepare students for their future. The school acts as a microcosm of society so students can understand what it means to be an empathetic citizen on a smaller scale before applying those lessons in the real world and in the broader Seattle metropolitan area.

The K-8 is intended to be a large facility housing student from all areas of Seattle and different social backgrounds. The typical size for grade schools in Washington is 416 students making for roughly 20 classrooms and 579 students per middle schools making for roughly 29 classrooms in total. This school will not be just a combination of those sizes, which would be an overwhelming 1000 students but use the number to create a school with about 2/3 the number of students, 700. Hopefully, if the design is comprehensive enough the space can live up to the title of being the second instructor, aiding educators in their efforts to teach students. Gardner argues that lessons should be taught in multi-modal ways (meaning several different types of learning activities that require varied skillsets) to reach all the different intelligence types. Multi-modal curriculum provides opportunities for the creative exploration of student's individual interests and talents while they also acquire valued skills and concepts through the varied, equalized means. This proposal tries to incorporate multimodal learning opportunities throughout the grounds, in and outside of the classrooms.

The village actually houses two schools; the K-8 and the K-12 Sensory school. The two are separated on the large site among the village to give sensory students the chance to join the mainstream classes while also having a space that is their own to which they can retreat when necessary. Housing both a general education school and a ASD special day school is an attempt to appease both sides of the autism education arguments. Those

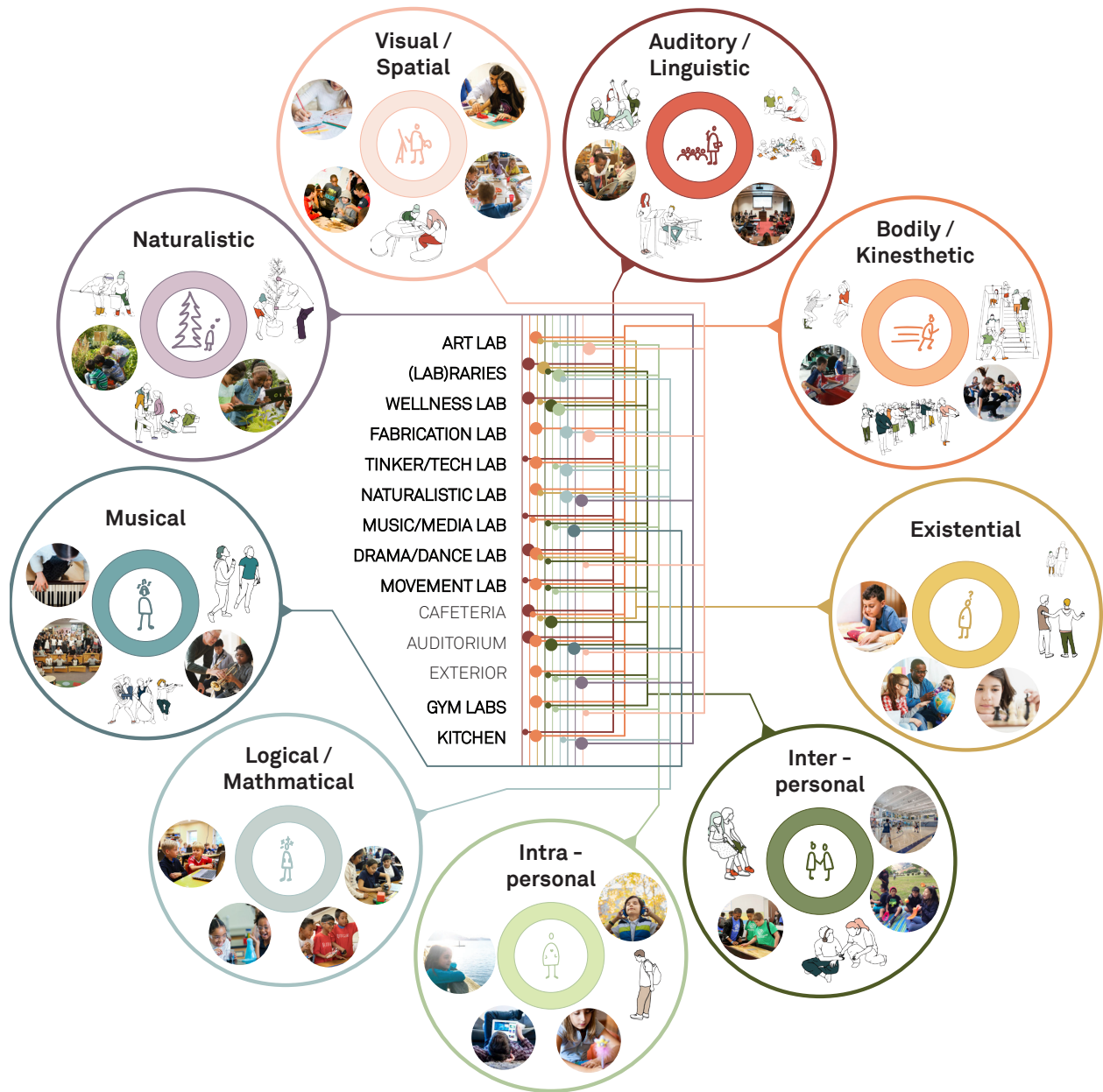


Fig. 16 - Diagram of MI relationship to main program elements

in favor of the neurotypical approach fear students will be unable to apply the skills they learn in a specialized environment elsewhere.¹ While proponents of Sensory Design Theory claim comprehension of new skills will be inhibited from the very start in an environment that causes trauma for students, especially for younger students and more severe cases.² ASD students become more demanding in an unfit learning environment which puts strain on educators and students might not even comprehend the base skills and lessons that are taught preventing their personal and academic growth.³ That is where gradual generalization and mainstreaming come in, linking these two trains of thought can only happen if the two facility types they call for are carefully linked. This means housing both the Gen. Ed. and self-contained spaces on the same site with very specific delineation of boundaries. Beyond the boundaries between the two types of school there is a separation within the special day school as well. The sensory school is broken up between the grades K-6 and 7-12 to define healthy growth boundaries. Both schools are set up with four main zones: High stimulation – body, high stimulation – mind, low stimulation – homerooms, and lowest stimulation – respite care. The temporary respite care is a program element that is not usually offered but generally needed. Parents of students with severe sensory challenges say that the number one thing they wish their area provided was temporary respite care for when they are unable to take care of their children alone.

4.2 – PROGRAM

The program elements that relate to the multiple intelligences theory are not new. They are often, as a product of intellectual bias, cut from core program planning due to budget. The spaces that house music, drama, fabrication, art, etc. are revitalized in the learning village and put at the forefront of the education design. These MI spaces will all have the title of “lab” to elevate them to the level of importance granted to the science intelligence. The recognition of spaces that encourage the diversity and exploration of different intelligences is the goal.

1 Henry, C. (2011). “Designing for Autism: The ‘Neuro-Typical Approach”

2 Mostafa, M. (2014). Architecture For Autism: Autism Aspectss. p. 146

3 Saheebi, N. (2019).

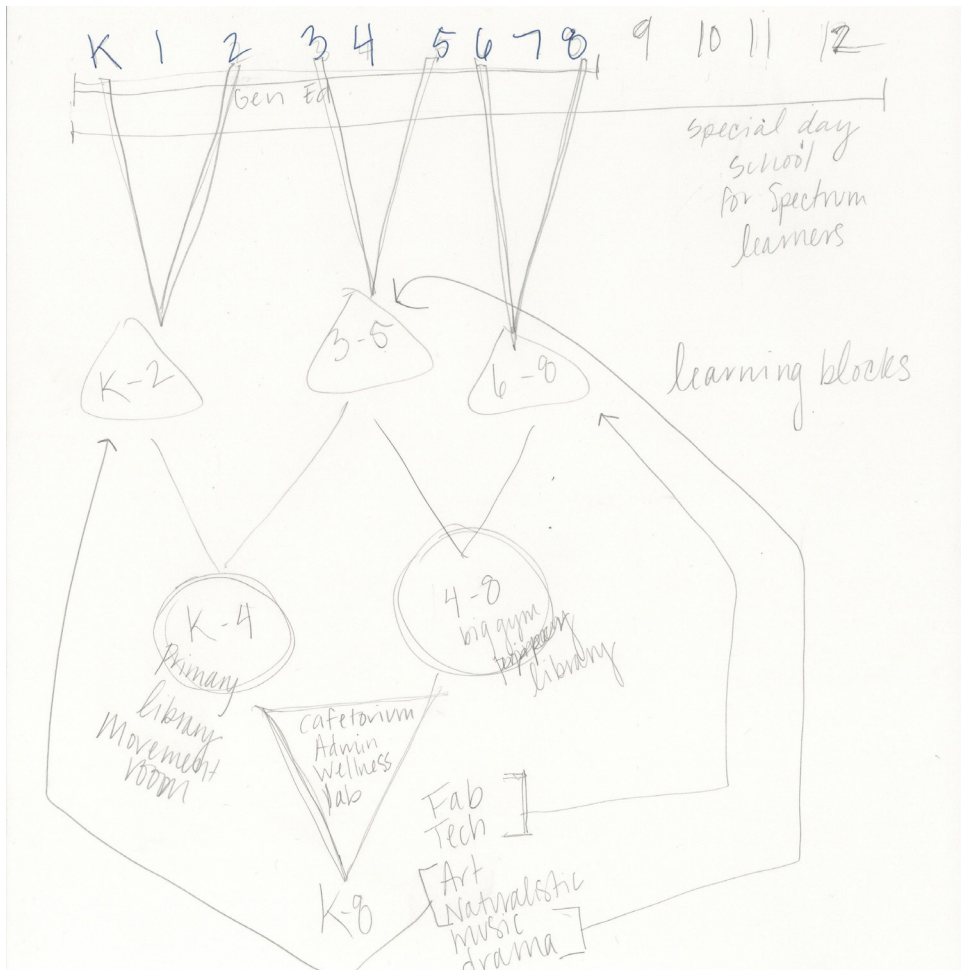


Fig. 17 - Diagram of reorganization of school spaces.

These spaces are also often used by sensory students either as practical training education or as therapy spaces since the MI labs will be put at the forefront of the curriculum, they will be accessible to the sensory students for their lessons as well. Though they will have similar resources on a smaller scale in their area of the village as well.

4.3 – ORGANIZATION

The expansive site has allowed for a very different kind of school organization. Instead of having the typical, forced-focus type of scheme the village is arranged in Blocks and Hubs connected by streets and navigated by beacons. These spaces were developed based on a rearranging of spaces based on developmental age. K-8 schools are often broken up into primary k-5 and upper 6-8.⁴ This school groups students into 3 developmental blocks K-2, 3-5, and 6-8. Each block is home to one or two MI labs that can be accessed by the whole school. Hubs are public program groupings that can be shared between those three blocks. K-5 and 3-8, these allow students to have choice and agency in their education based on each individual learner's feelings and maturity.

4 Pauls, A. Phone Interview





CHAPTER 5 :

SITE + PLACE





Fig. 19 - Georgetown in the Seattle Context



Fig. 20- The site (in white) in the context of Georgetown

5.1 – CURRICULUM IN PLACE: GEORGETOWN

Schools are placed in residential neighborhoods, especially younger grades. This is intended as a safety measure, providing a buffer from high traffic areas and facilitating more controlled volumes of people. What if schools, especially the younger grades, were placed in a more urban and active places? This question is one of the drivers of the site selection, Georgetown, Seattle. This thesis imagines a world where more funding has been given to education spending and thus the site of the Washington State Department of Transportation Corson Facility is being turned into a school. The site is expansive making it the perfect place to accommodate a public K-8. For both intelligence and sensory curriculum and space real-life context is key. Howard Gardner describes these public and community partners as representatives of different domains “[a domain] refers to any organized activity in society in which individuals can be ranked in terms of expertise. Any occupation, art, craft, or sport is a domain.”¹ Placing a school with close proximity to a multitude of domains is an integral part of curriculum and student growth because accessibility to busy mentors becomes easier. From a sensory standpoint spaces where community partners and sensory students can engage with one another is vitally important for student adaptation learning of the real world, even from a young age; “This helps develop social and vocational skills in the students as well as promote a positive productive image of autism to the community at large.”² It also encourages empathy across the intelligences and sensories, from adults to children through understanding and familiarization with each other’s needs and actions.

A large part of the overall curriculum in intelligence education design is community partnership and life-learning. Real, applicable skills learned from a young age is an integral part of MI thinking and Georgetown hosts examples of that for every intelligence. There are artist studios, labs, fabrication factories, and so on. Students in this environment will be able to witness MI in daily life outside of the classroom, thereby assuring them of their future.

Initial glances at Google Maps, Georgetown looks grey and inorganic. But the

1 Gardner, Howard. 2006. *Multiple Intelligences: New Horizons* 65).

2 Mostafa 204, 150

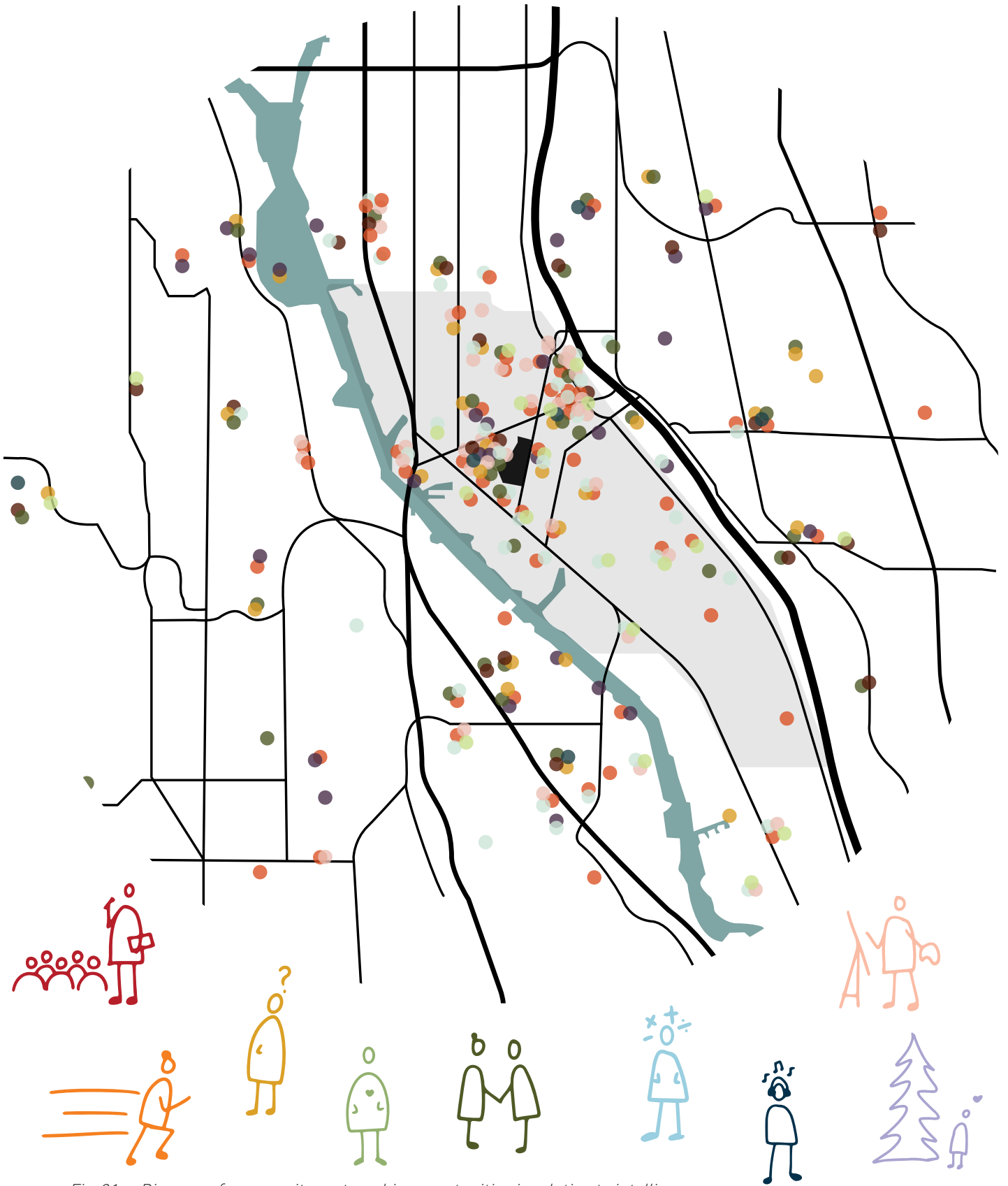


Fig. 21 - Diagram of community partnership opportunities in relation to intelligence

naturalistic intelligence will be there to remedy this particular situation. The vast site has space for smaller scale naturalistic learning like a school garden or orchard, but the curriculum aspect that will respond to their way of thinking and aid the community is being a part of the restoration efforts of the Duwamish River. In the origins of Georgetown, not too long ago this area was lush and vibrant. The curriculum and the site are a call to action for these MI students. By doing so, these students will be able to create strong sentimental ties to an urban landscape. Those ties are the indicator of environmental activism later in student's lives. Georgetown is in a state of rapid growth much like the rest of Seattle at this time, but the Boeing airfield ensures that building heights will remain low and subsequently solar rights will be maintained. This is ideal for the naturalistic intelligence, and the program element of a school garden or orchard.

Seattle in general has no shortage of visual and musical artists. What separates Georgetown is the concentration of those individuals and the arts community there bordering on trade as well. All too often the trope "starving artist" is heard, deterring those who may want to pursue artistry as a career. With music lessons and product design happening only blocks from the site, students will be able to learn how their intelligence proclivity manifests outside of a school setting and how it can be a viable option for their future. There are also a lot of architecture firms in the area as well. Architecture encompasses a few different intelligences, namely Visual/Spatial and Logical/Mathematical. With tech giants like Microsoft and Amazon the area is a haven for these types of thinkers. Georgetown hosts one of the city's most well-known and older companies of innovation, Boeing. The bedrock of this neighborhood has high gates and restricted access not far from the school's site. But who can say no to connecting with kids? Linking with this community partner would be an amazing way for students of this intelligence to see what they can do after school. There are a lot of trades in the area and specifically bordering the site. Vocational work is something to be encouraged in for those who don't learn in the standard way. This is often what comes to mind when individuals say they are not "school people". Tradespeople are important and vital to any economy and society. In the U.S., public school curricula have caused students to shy away from their natural kinesthetic brains, lowering the respect for trade work and classifying it as other. Georgetown celebrates its

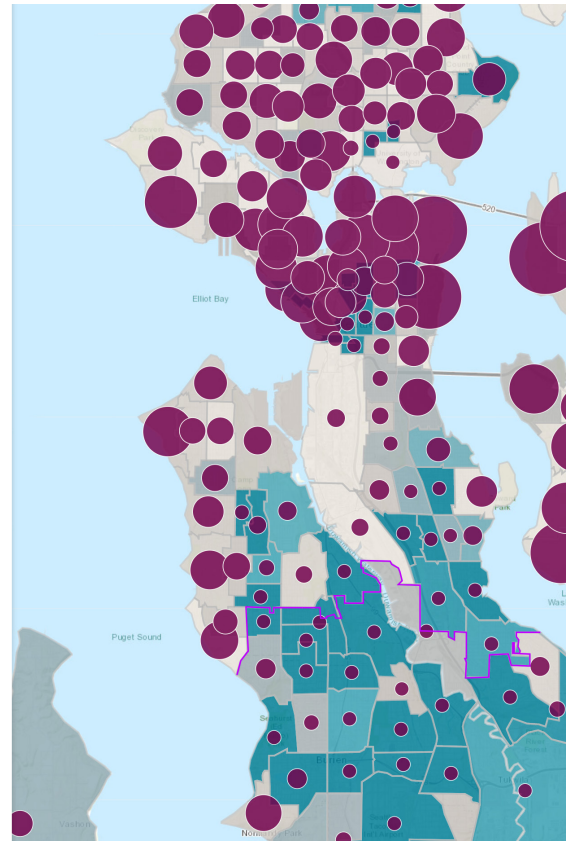
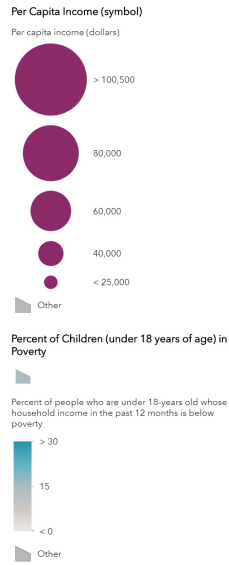


Fig. 22 - Seattle economic data showing the distribution of wealth geographically. The most wealthy families live in northern Seattle where the population is mostly white.

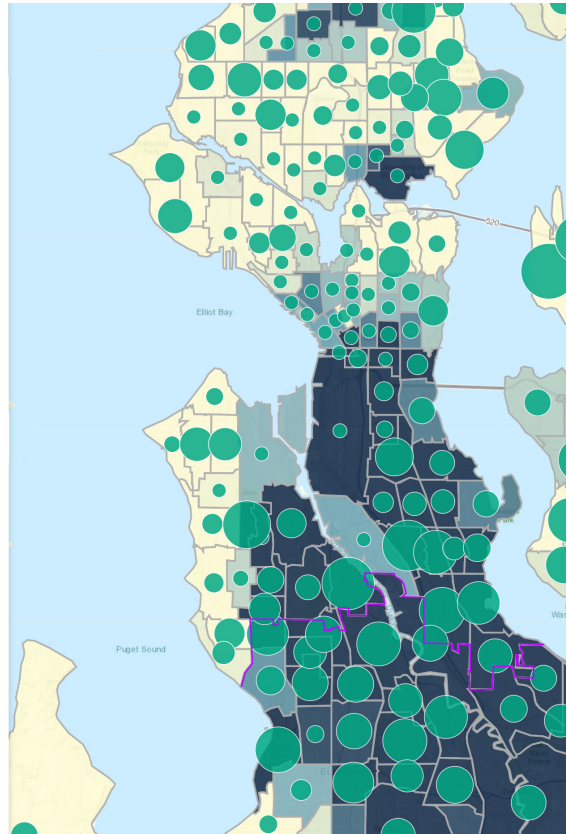
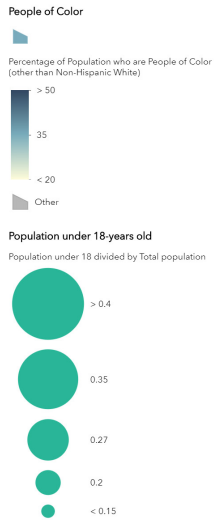
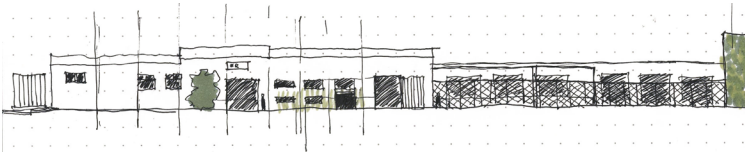


Fig. 23 - Seattle population data showing where public school-age children are living and where the communities of color are located geographically.

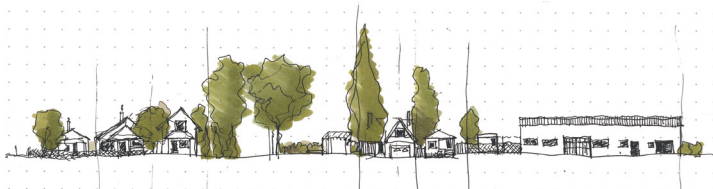
trade and industrial roots and the kinesthetic learners will connect well to these examples of their intelligence in the work force. The site also allows for much more activity space than a normal urban school. The amount of surface area and the flat topography of the site make possible one or two sports fields. Students with alternative sensories have a wide range of needs. Georgetown is perfect for a school like this for many reasons. First, just as the MI curriculum has an applicability component so does autism education. Generally, autism education links students to support staff on campus to give them understanding and job training. This is generally in high schools and the schools are often in residential neighborhoods. In this exploration in Georgetown, students can learn from people outside of the school as well since their close proximity makes it much easier.

Another reason being its location in relationship to other neighborhoods in Seattle. ASD and SPD does not discriminate based on race or socioeconomic status. About 1 in 59 children have been identified with autism spectrum disorder (ASD) according to estimates from CDC's Autism and Developmental Disabilities Monitoring (ADDM) Network. With this number of students with sensory needs, there is a likelihood that many of the student in grades K-8 in Seattle will need a space and school like this. Traveling with children with ASD or SPD can be more difficult than those without. Transitions just as discussed in the ASPECTSS, even outside of school can be taxing on children and parents alike. Georgetown is off I-5 making it accessible from further swaths of the region, while the site location is far enough away that sounds from the interstate will not be too aggressive for students at school.

Georgetown is said to be the oldest neighborhood in Seattle. But it is also one with a dark past. The Duwamish tribe used the Duwamish river for fishing for longer than the city's existence until settlers displaced the people and seized the beloved and lush river. Part of learning empathy is seeing it in practice. As part of the school's curriculum, the students will get to know the story of Georgetown and the people that were replaced by industry. Restoration of the Duwamish will be a core curriculum component and sentimental ties to the place and the story will grow. This school will try to correct some of the wrongdoing of early Seattle settlers by focusing on the Duwamish people and learning how they might help reclaim parts of the now polluted river. The location is also an



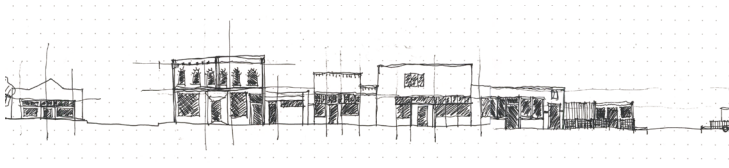
Industrail - 6th Ave.



Mixed Residential/Industrial - Carlton Ave



Residential - Flora Ave



Public/Historic - Airport Way



Fig. 24-27 - Elevation studies of typical Georgetown streets.

Fig. 28- 34 - Photos of building typologies in Georgetown.

intentional manifestation of economical empathy. Georgetown's location south of downtown opens up the neighborhoods that are more diverse and with the lower median income. Engaging the southern neighborhoods of Seattle through proximity is an effort to bridge the gap between the income inequality through education. Students from all walks of life will be able to study at this school, no one is the "other" they are all whole.

As it was mentioned earlier, Georgetown is growing in popularity and population, but it is unlikely that it will grow vertically due flight paths and Boeing's control over this area of Seattle. This works in the favor of the school. Students will always have access to unencumbered sunlight due to the flat topography and low building heights. Students with seeing sensitivity this makes for fewer reflective surfaces, like downtown. In a more general sense, it is suspected that natural light is calming and helps maintain human's circadian rhythm within the body, regardless of sensory or intelligence needs. By ensuring access to daylight throughout the lifetime of the school helps all children, sensories included. Compared to urban schools in metropolises like Manhattan, NY, the sounds of this part of Seattle are relatively minimal. The sounds will generally be aircrafts overhead and some larger trucks servicing the industrial factories in the area. Compared to other schools in quieter Seattle neighborhoods like Queen Anne, it might be louder or at least have different types of noise. Since part of the curriculum of intelligences and the sensories is connection and preparation for life beyond the school, this noise is welcome and helps students adapt to sounds of the city in a controlled way and on a smaller scale.



CHAPTER 6 :

DESIGN PROPOSAL





Fig. 36. Plan of the Village

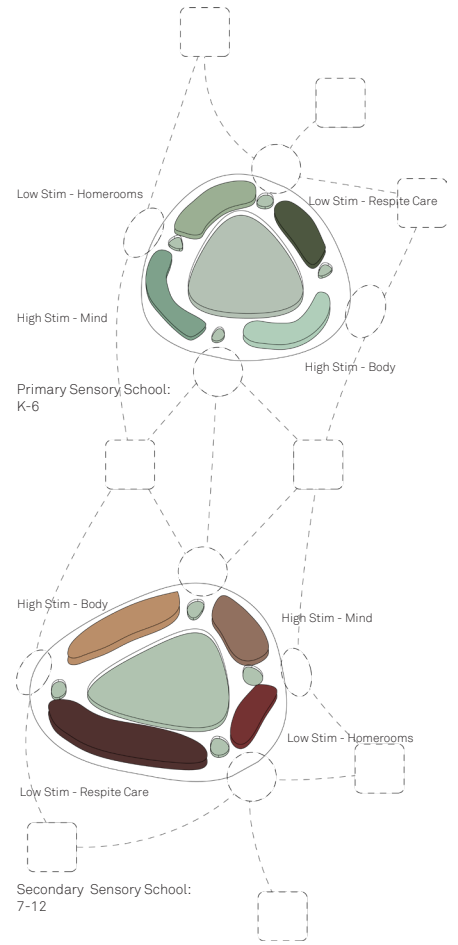


Fig. 37. Sensory School Plan

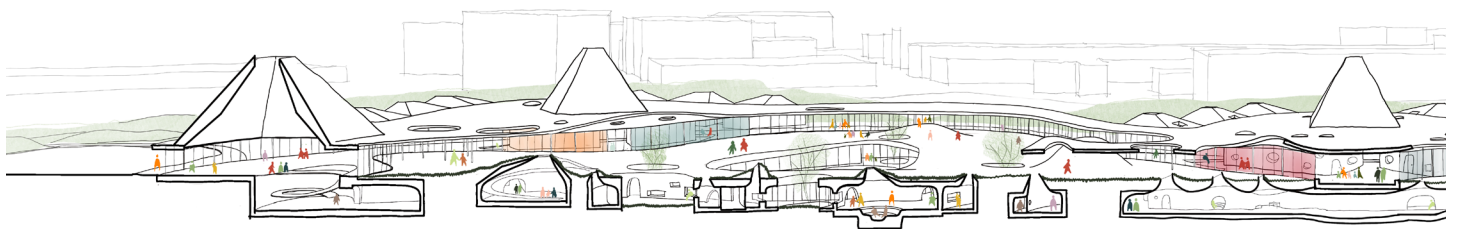


Fig. 38. Section through of the Village

To fully describe the proposal a few explanations and definitions must be outlined. As discussed in earlier chapters the school is based on a reorganization of spaces that together make a wholistic learning environment, the same is true for the lexicon of school design terminology. The redefinition of these spaces aims to bolster the village atmosphere and the message of the inclusive curriculum. These words and their definitions are as follows:

Homerrooms: These are classrooms but with a more welcoming intonation.

Blocks: Like a neighborhood, blocks are intended to unify groups of students.

Streets and Empaths: Instead of hallways this proposal employs verbiage from urban planning. Just like in a functioning village, circulation must be clear and direct.

Hubs: These are spaces where fully shared program is grouped together to allow students from all the different blocks to access.

MI Labs: Although this word in the vocabulary of school design, it often relates only to the scientific types of spaces. Here, all intelligences are represented with the same weight and importance. Using this word is intended to equalize the intelligences and the learning within them.





Fig. 39 - Detailed Plan of Learning Village

Auditory/
Linguistic



Bodily/
Kinesthetic



Existential



Inter-
Personal



Intra-
Personal



Logical /
Mathematical



Musical



Naturalistic



Spatial/
Visual



PLAN KEY

1. Main Entrance

2. Administration

3. Wellness Center/Diagnostics - The wellness center is “lab” provided to speak to students of the intra- and inter-personal intelligences. This is a space that emphasizes mental health and peer-to-peer learning. It is intended to be a very calming space so it also houses the diagnostics center for the ASD school.

4. Auditorium- centralized and public *servicing all students and sometimes the community as well.*

5. Cafeteria - centralized and public *servicing all students and sometimes the community as well.*

6. Natrualist Lab - *placed by the front of the school to be able to be used for SEN occupational therapy courses and connect to the cafeteria for kitchen sharing.*

7. 3-8 Library

8. 3-8 Gym

9. Fabrication Lab - *This lab was placed in the 6-8 grade block because of its use of tools that are potentially dangerous.*

10. Tinker/Tech Lab- *This lab is again for older students who want to work with robotics or technology fabrication*

11. Drama Lab- Music and drama are placed in the 3-5 learning block so they can be used by all students to explore their intelligence or for ASD students to be used as music and movement therapy spaces. These two spaces are also close to the cafeteria and the auditorium for community events, recitals, open houses etc.

12. Music Lab- The 3-5 block is also a good spaces for the music lab because students who are really young would not be able to use it independently as much as a student who has been practicing for longer.

13. Visual Lab- *This block houses the youngest students so the MI lab they are home to must be able to be safely used by the students of their age group but all students are welcome.*

14. K-5 Gym

15. Primary Library

16. Grades K-5 Outdoor Area

17. Grades 3-8 Outdoor Area

18. Public Trail

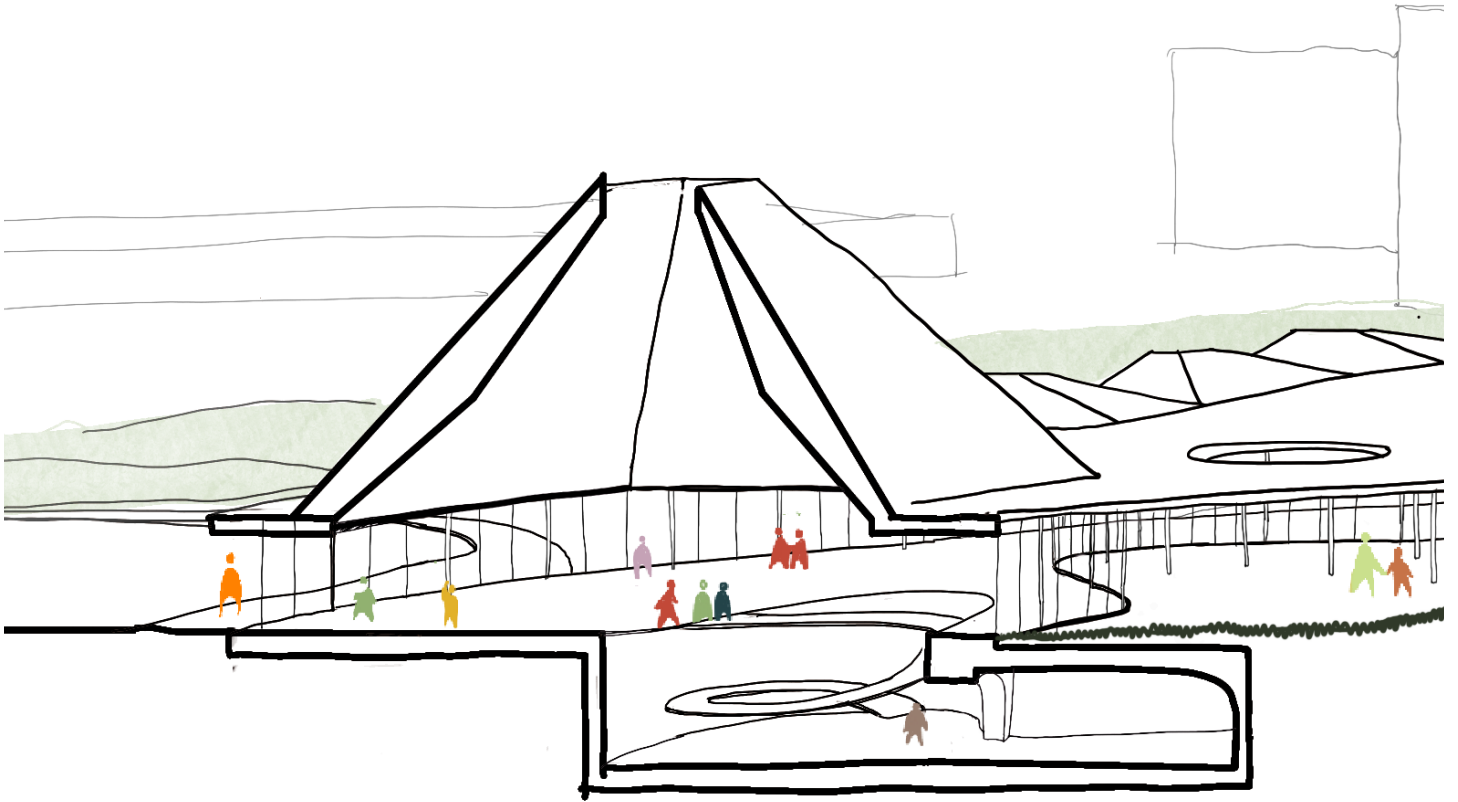


Fig. 40 - Close up of the Secondary School Entrance, the southern public entrance.



6.1 – ENTRIES + BEACONS

The access points of the school are divided into 3 main entries based on students age and the secondary entries are for faculty and staff and to access the outdoor areas. The entries are marked by limpet-like structures that protrude from the roof to signal to students of its function. For students with certain disabilities traversing their environment can be confusing and disorienting. These peaked entries alert students where they can go for guaranteed entry and access to people who can help. Beacons are intended to orient students in their village. They can be seen from nearly any vantage point. Their color and height indicate the program they house and thus the type of sensory experience to be expected.

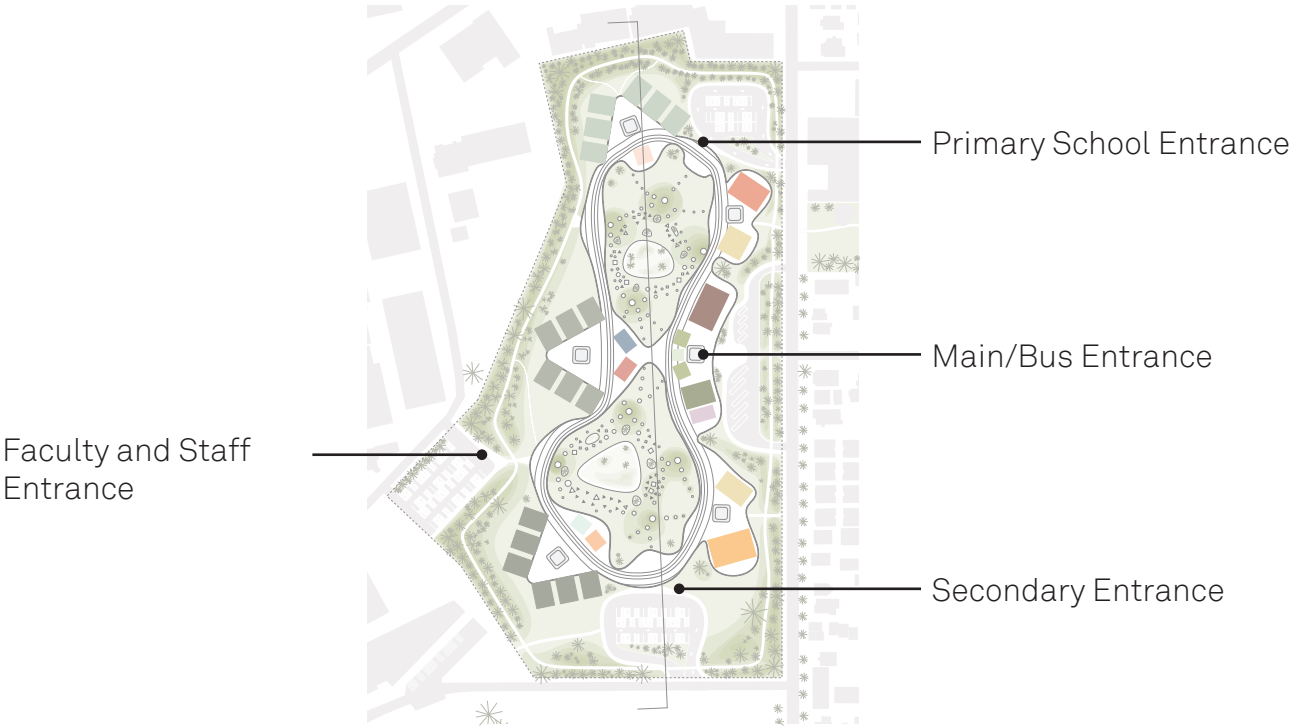


Fig. 41- Main Entrance Locations

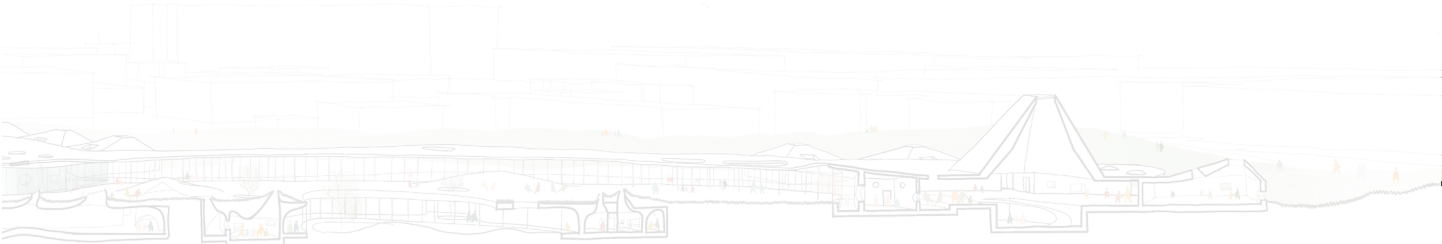




Fig. 43- Perspective looking between the Fabrication and Tinker/ Tech Labs

6.2 – BLOCKS AND HUBS

Blocks are clusters of classrooms based on grade level, developmental age and curriculum. Each Block is host to six “Homerrooms” and one of the two Multiple Intelligences labs. The blocks are intended to break down the scale of the school and allow students to host their peers for a block party every time they come to use the shared labs. Students can look forward to moving up in age and on to another block where they will host the school in their new block. The organization of the blocks is such that there is a beacon in the middle, allowing students to recognize where the vertical circulation is for the sensory school with shared space around the ramps where students can gather, line up or have informal lessons that involve more than one classroom of students. Then the Empath flows tangentially to the vertical circulation. On the other side of the “street” somewhat recessed into the earth lies the shared MI lab. The lab areas are sunken into the ground to give some separation from the streets and the Homerrooms as well as strengthen the connection in section between the Sensory School and the general education population.

Hubs consist of fully shared program elements fit in between the blocks of age groups and facing the public street to the west. The three hubs meld together just slightly but the most central is the one that houses the spaces every student uses, the main entrance, administration, cafeteria, naturalistic lab and auditorium. The Hubs on either side of the main one houses spaces that mainly 2 of the three Blocks will use. The hub to the north houses the primary library and the primary gym that can be accessed by the younger students from block one and 2 as well as the younger SEN students. The hub to the south can be used by the older students. This area houses the secondary library and the larger gym. Students from any block and any SEN school can access whichever hub they feel most comfortable. In this organization the school empowers students, regardless of age and ability level, to access the spaces that speak to them the most. Students are spatially encouraged to discover more than they would be allowed to at a more traditional school.

6.3 – LABS

The Multiple Intelligence (MI) labs are intended to be shared among all students even though the SEN students have similar facilities in their space below the earth. Each block houses a lab or two to give students an opportunity to host students from the rest of the school and varying age groups. The labs that are fully shared are housed in the Hubs on the western edge of the site. The color schemes of the labs relate to the MI colors of the diagram in chapter four. The color palette is used in lab's signage and materiality to both overtly and passively indicate the lab type and act as a beacon for students who identify with that intelligence so they can come utilize the space that relates to their intelligence.

6.4 - HOMEROOMS

There are some principles that the homerooms follow and some basic qualities that each of them have. The classrooms have been designed and renamed to reinforce the idea of a home, a safe place. The classrooms have are designed to feel like a home to help students feel more comfortable in their learning environment just as they would feel comfortable in their own home or, if a student has a difficult homelife, this space would be able to provide them with this space that has been missing in their life. The homerooms either reinforce strong bonds to home or provide the comfort of home for students who do not have a stable one. The volume of the homerooms was designed in response to spatial and sensory zoning to help students transition from public to smaller scale learning space. The efforts of the volume to reinforce the ideas of the school will hopefully allow students can feel the support of a home in the village.



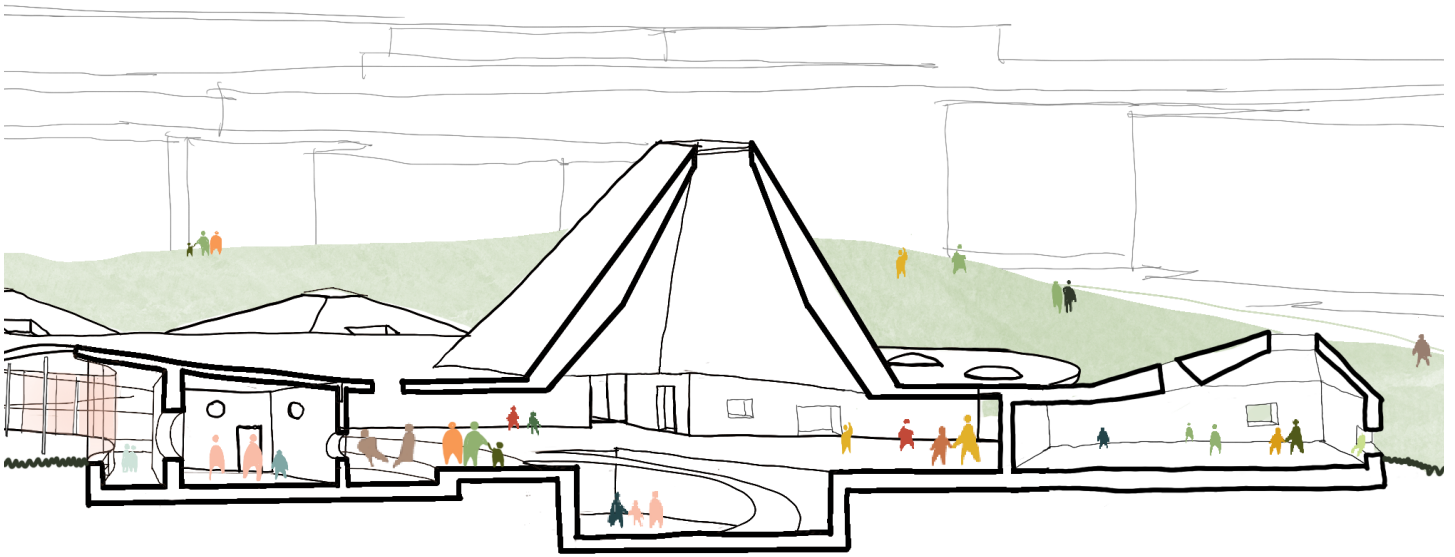


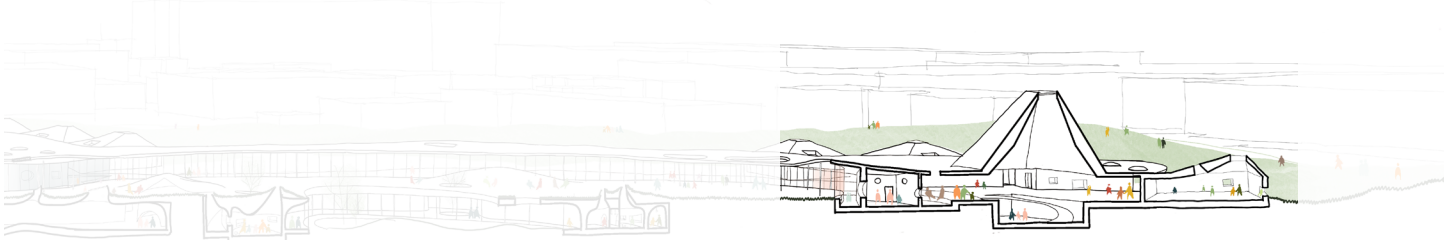
Fig. 44- Section through the K-2 Block showing the graduated space of a home room, ramp circulation down to the SEN school, the sunken lab area, and the beacon.



Fig. 45- Precident image for the use of monochrome color scheme that would connect the lab to its cooresponding intelligence. As well as materiality for ASD students.



Fig. 46 - Precident image for what a homeroom might look like inside. The color and materiality would be neutral with natrual daylighting.



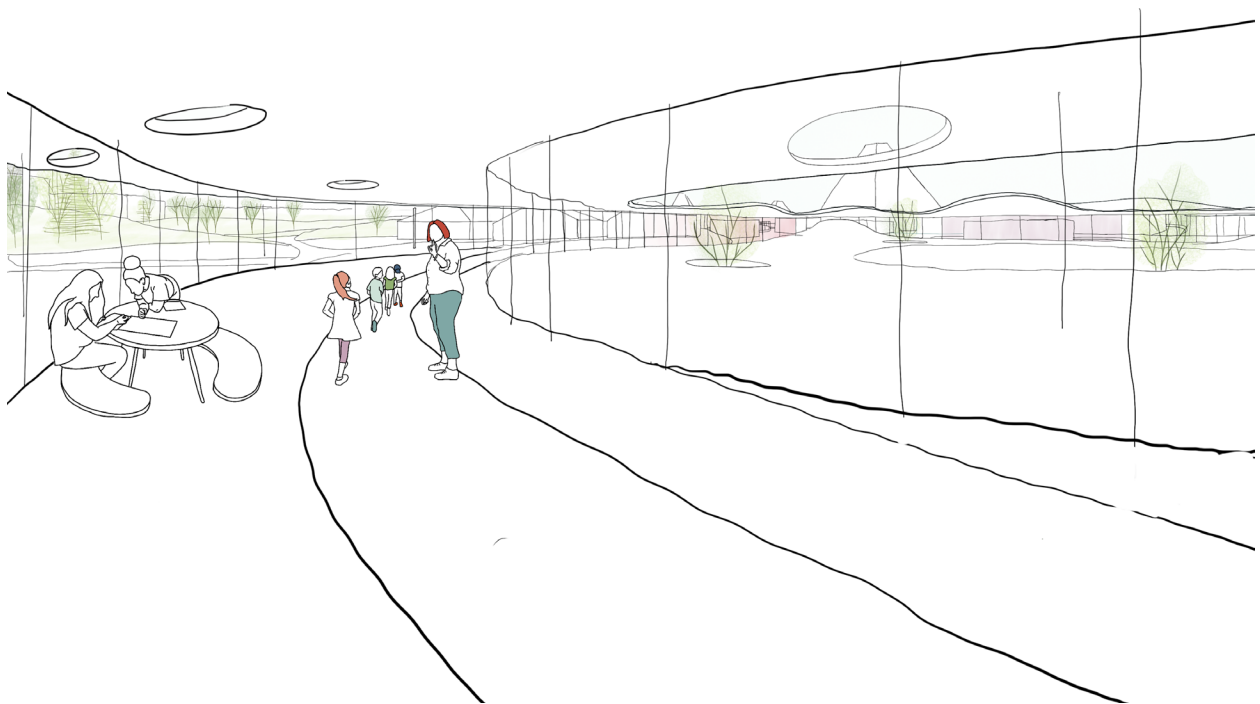


Fig. 48- Perspective looking North at the street that connects the 3-5 and 6-8 grade blocks

6.5 –CIRCULATION

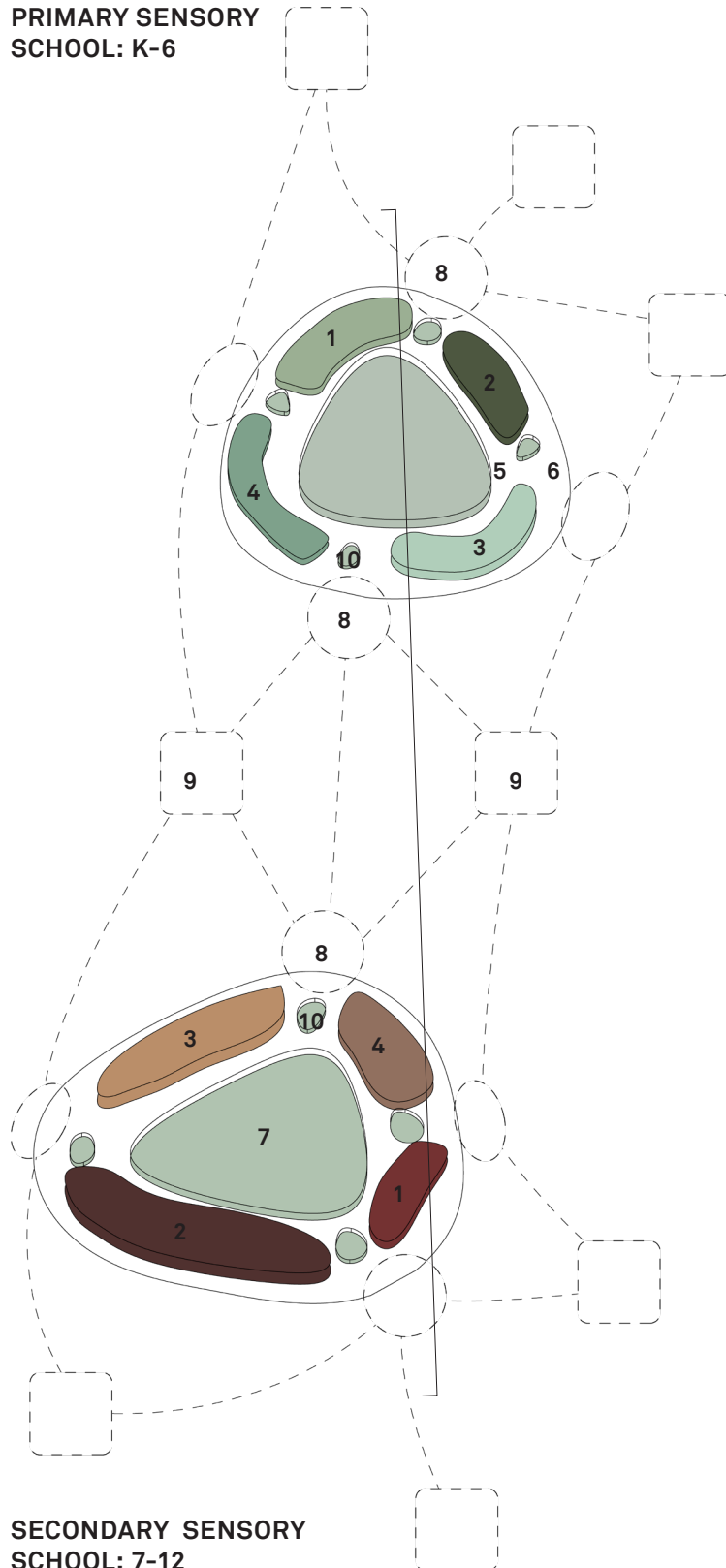
Circulation in a school is one of the most important elements to a successful learning environment especially of SEN students. Transition time, while sometimes it can be seen as concentration break for some, it can also be stressful, disorienting and disruptive to learning specifically for those who get overwhelmed by change and increased social interaction and noise. Circulation throughout the school has been renamed to reinforce the ideals of the learning village. Using nomenclature that both ties to the physical aspects of a village (“streets”) and the message of empathetic space (“EmPaths”). All earth level program is connected by these “Streets” that have lanes and parking but overall, they form a large figure 8 on the property while the “EmPaths” form a network of connections under the ground linking the elements of the sensory schools. These underground streets are designed around the needs of sensory students. They are full of escape spaces, material cues, signage and skylights to help students understand where they are going in various ways to better prepare them for that transition. Spatial sequencing is an important part of transitioning through space for SEN students and the application of a gradual nature to the circulation is helpful in their shifts between spaces. The calming Empaths are full of seating and escape spaces where students can stray away from a moment to collect themselves if they become over stimulated from their surroundings.

Circulation in the general population school is set up on the surface of the site as two concentric loops. These hallways, now called streets, much like the automotive streets, have two lanes for two directions of traffic that are 4’ wide and signified by arrows, colors and materials cues that allow students of multiple intelligences and sensory needs to grasp the flow of traffic quickly or should they get confused. The streets are potentially over explained when they are being used but clarity of the transitional spaces is intended to limit the stress moving through space throughout the day. There is also a lane for “parking”. It is an 8’+ lane for students to pull over and have a conversation with friends or remove themselves from the flow of traffic should it become over-stimulating. This hang out lane is equipped with tables and chairs or nooks to provide an area for the spontaneous gathering of students or a quick escape space for sensory students.

6.6 – SENSORY SCHOOL

The sensory school has been split up into two age groups. The kindergarten through sixth grade are nested in the northern outdoor area and the upper grades, seventh through twelfth grades are to the south. The placement of these spaces is based on age so sensory students of similar ages to the general population can access the different general education blocks for mainstream learning with the option for a quick retreat. The sensory schools are broken into four main pods separated into sensory zones that are associated with different activities and focus requirements. Two low stimulation and two high stimulation spaces are in each school. Low stimulation zones are for high focus tasks like acute knowledge and skill building, tasks that require the most concentration and least distraction. The sensory homerooms are in this category. These spaces are to be calm in their atmosphere and materials to cut down on visual and textural noise. The other low stimulation space is the respite housing. This space is for temporary overnight stays for SEN students that require more aid than parents can provide. Respite care gives parents of students with demanding sensory needs a break. The other two zones are learning zones that can be a little less rigid in its atmosphere. The high stimulation spaces are separated into two pods for the mind and the body. The high stimulation-body space is a place where students can do crafts, stretches, music, any learning activity with a kinesthetic base. The other is a higher stimulation zone with more cerebral skills are built. These spaces are important for students to learn how to focus in a busier environment. This pod would hold a group working space and library etc. Both schools have their own courtyard that is centered among the stimulation spaces. This courtyard brings light into the sensory schools while providing students with a more controlled and quieter outdoor space. This could also be used for naturalistic therapy and botanical learning especially for the 6-12th grade students. From the ring of circulation students can see into the courtyard and to other sections of the sensory schools as well as beacons from the general education population above. Sensory students can always orient themselves in space with the open visual connections to important parts of the learning village while also protecting them from becoming overwhelmed. This visual connection to and from the sensory school students and the mainstream students strengthens their understanding for one another.

PRIMARY SENSORY SCHOOL: K-6



SECONDARY SENSORY SCHOOL: 7-12

PLAN KEY

1. Primary Homerooms - This low stimulation, high focus area is where much of the academic learning takes place with one-on-one instruction in small groups.

2. Respite Care - This a very low stimulation space with low lighting and smaller skylights. This is for students to calm down and rest.

3. Body Space - This program group is used for all things bodily; physical therapy, movement, play, dance, music, etc. These program elements mimic the MI labs and students, should they chose can use the school wide labs as well. But this is a nice training ground.

4. Mind Space - This space holds the youth SEN library and spaces for more group oriented work. It is a high stimulation area in that it houses larger group learning spaces where students who have sever SEN needs may gain experience in an intermediary environment between full mainstreaming and this type of learning space.

5. Interior Circulation Ring - This is the circulation lining the courtyards.

6. Exterior Circulation Ring - In addition to proper observation rooms, the outer ring can serve as more informal observation and oversight. Potentially giving diagnostics a better reading through from natural play.

7. Outdoor Courtyards - Both the primary and secondary SEN schools have their own courtyard, the secondary school can access the gen ed playground from the courtyard.

8. SEN Beacons - Exterior entry from the playgrounds.

9. Nodes - Connections from the other parts of the interior school program housed in blocks and hubs.

10. Zone Indicators - mini courtyards to indicate transition a spatial transition.

Fig. 49 - The plan of the Sensory School. Also representative of the proposed color scheme for the school

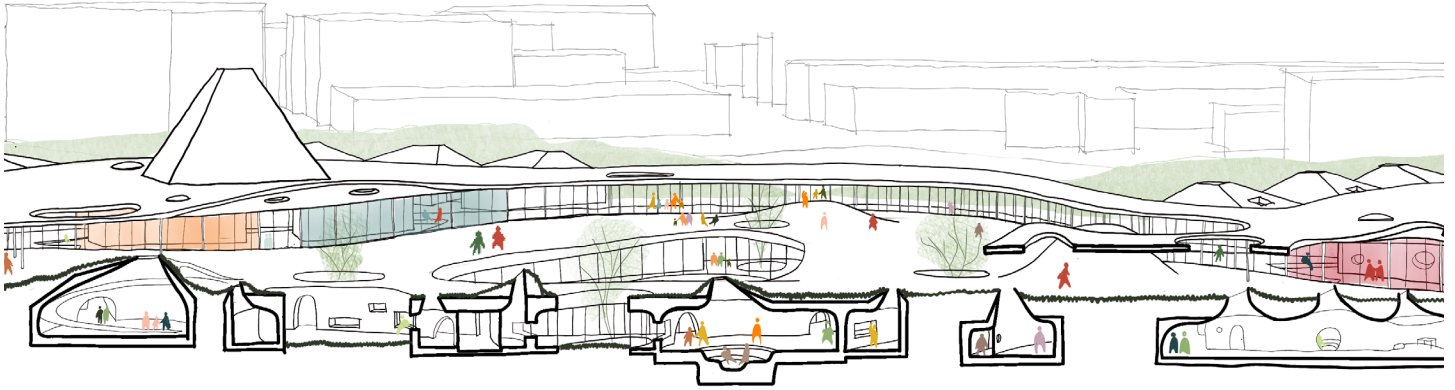


Fig. 50- Zoom-in of the Sen School spaces



Fig. 51- Precedent image for the use of monochrome color schemes, warm materials and atmospheric lighting that would be used for the Special day school spaces.



Fig. 52- Precedent image for the underground sensory circulation, EmPaths. The space should be lit by daylight and soft materials that are neutral to the touch and to the eye.

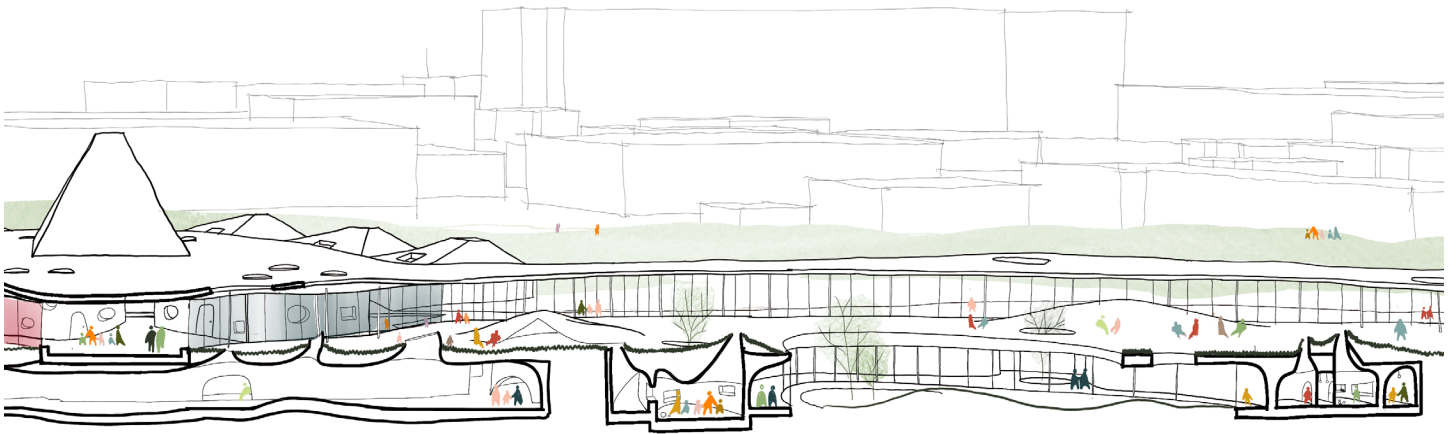


Fig. 53 - Precedent of what a sensory beacon looks like from the playground and how they melt into the landscape.



Fig. 54 - Precedent image for the atmosphere of the learning spaces in the Sensory school spaces.

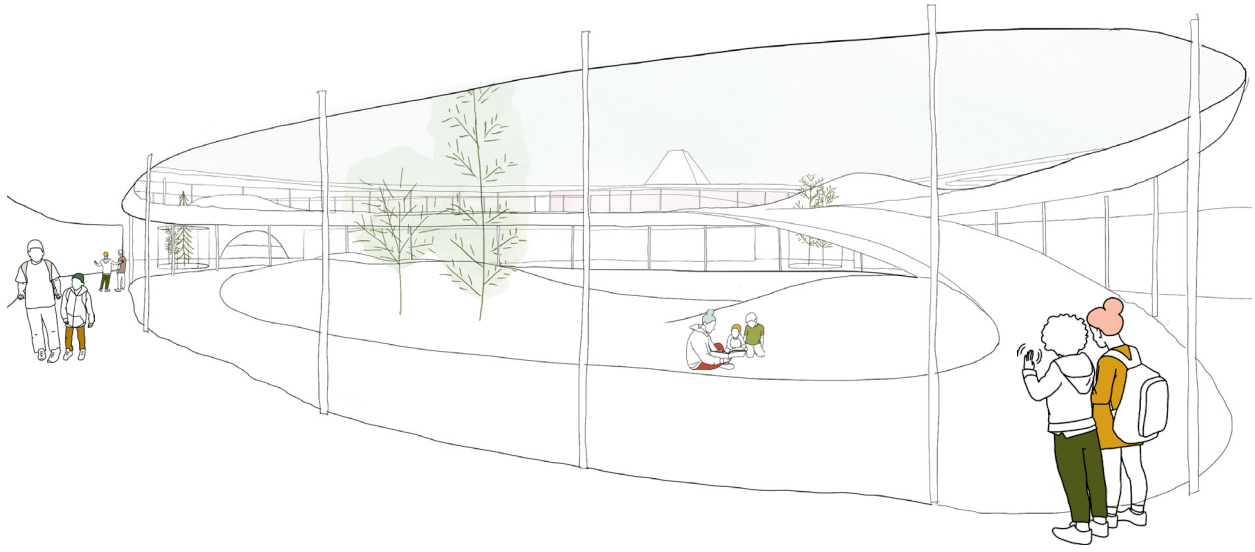


Fig. 55 and 56 - (top) view from the inner ring of circulation of the secondary SEN school looking out to the special day school's sunken courtyard. (below) view of the exterior space outside the K-2 block, the northern outdoor area.

6.7 – LANDSCAPE

The design of the school grounds aims to reinforce the intention of the learning village. Community members are also encouraged to partake in the splendor of such a wide-open site in the middle of metropolitan Seattle. There are two distinct areas of outdoor space. The exterior ring is open to the public and equipped with a trail that encircles the village. The dredging for the sensory school's nesting creates excess soil that is repurposed into berms of protection and connection along the perimeter of the site. The berms are built higher in areas where the neighboring context might be disruptive to a learning environment. The berms try to protect the students from busy roads and loud neighbors. The berms also flatten and open up in certain areas to reinforce the connection to the school. These spaces are supposed to engage the community and provide a supremely green space all while protecting the students.

The interior green space is vast but fully enclosed. Students can roam freely without educators having to worry about their safety. The interior green is divided, the northern play space catering more towards younger students and the southern part being tailored to older students. Although to keep in line with the message of the school both spaces are accessible to all students based on what they are more comfortable in. Since the sensory school is just below the surface of these greens there are little berms and specific shapes of skylights that indicate to students what is happening underground and what behavior is expected of them around those areas. The big berms and big skylights are the indication of a sensory node that are accessible from the green. This allows sensory students to quickly understand how to get to a place of refuge if their environment becomes too overwhelming suddenly.

In both the internal and external green spaces there is a sense of vastness and of discovery that allows students and community members to explore and revel in the green even when they are in the most industrial area of the entire city. The greenery on the interior and exterior sides of the site are intended to bring the students together with the community and bond over the new greenspace in such an industrial part of Seattle; creating sentimental ties to the landscape and nature for both students and community members.





**PART IV :
MIND+BODY**



CHAPTER 7 :

CONCLUSION



This thesis concludes that if education space designers examined the curriculum and the traditional inequalities of school spaces that learning institutions could be redesigned for inclusivity and diverse ways of thinking. The conclusions of the methodology are more a call to action. Throughout the design phase techniques will be employed that respond to all the intelligences to get a sense of how architecture can be produced in each of these ways. The design of the school in this thesis is a response to the need for something different in the spatial relationships between program elements of traditional school design as well as how a school and outside community relate to one another and interact. This project is about the organization of space that is egalitarian and welcoming to all peoples and all students. This proposal is about how the internal structure of spaces in a school can relate and reinforce certain messages and reflect the ideals of an inclusive and empathetic education curriculum.

This thesis maintains that the physical environment in which students is vitally important to their personal growth and grasp of curriculum. If students do not feel safe, seen and supported by their environment and the curriculum it will lead to a lacking educational experience. Each individual has special and unique proclivities toward certain types of learning and schools should encourage exploration of student's individuality and foster respect among their differences. This thesis seeks to challenge education designers to think about spatial equality and empathy so that all students of all ages and ability ranges feel free and safe in their education community.



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