

Little Einsteins is a Montessori inspired research & learning hub dedicated to the development of children in early learning education post COVID.

This space is created for children (aged 4-8) in early learning education that have had their development effected by the pandemic. This space actively addresses the challenges in education that are a product of the changes to social conduct as we knew it pre-pandemic. It is ultimately a design solution to how we can change the education system to positively impact children's wellbeing, mental health and social confidence.

Here, children are able to progress academically, socially and emotionally, interacting with adults and other children. These immersive spaces include sensory rooms, soft play zones and therapy rooms.

**'THE GOAL OF EARLY CHILDHOOD EDUCATION SHOULD BE TO ACTIVATE THE CHILD'S OWN NATURAL DESIRE TO LEARN' - MARIA MONTESSORI**

**'PLAY IS THE WORK OF THE CHILD' - MARIA MONTESSORI**





# THE LADBROOKE HOUSE, 28 BORDESLEY STREET, DIGBETH, BIRMINGHAM



The site sits in Digbeth, Birmingham. A popular city that has a lot of visits from people all over the country. Nearby, there are public transport services such as buses, coaches, trains and trams



The current occupants of Ladbrooke house is the Ladbrooke Hotel. Alongside offering rooms, the hotel also offers a range of amenities including a bar and restaurant and a function room



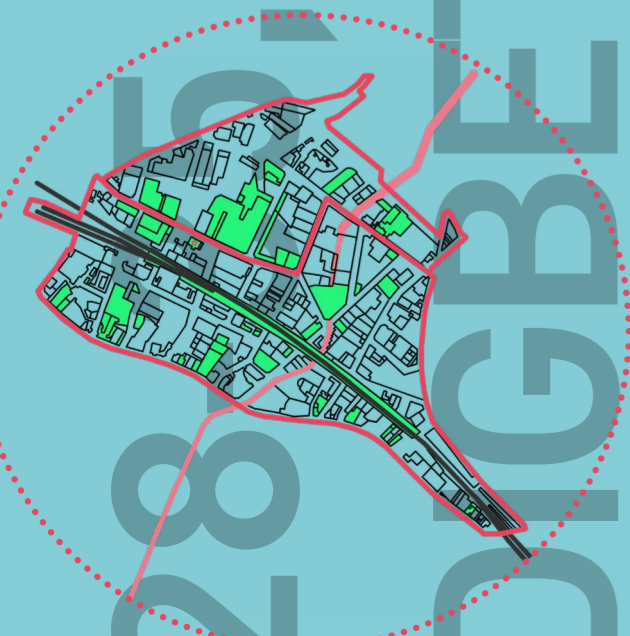
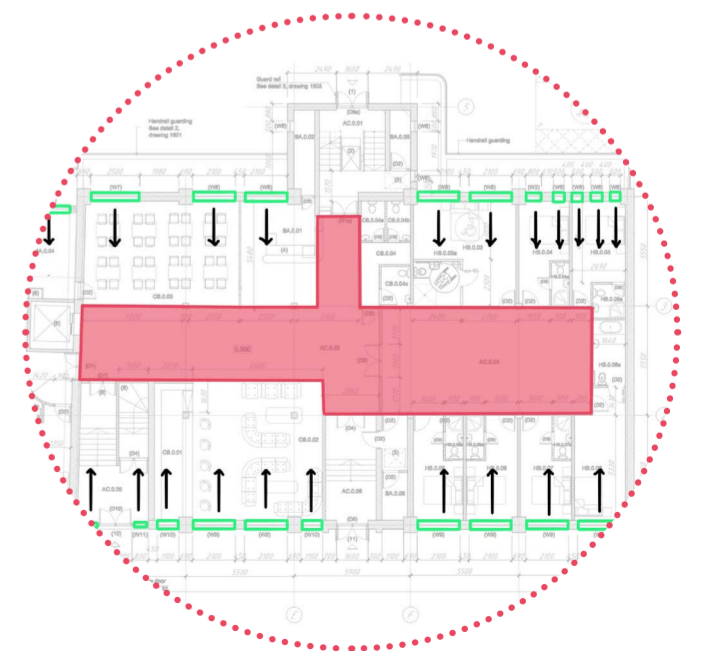
The site was built in 1936 and its original purpose was a factory for 'Midland Cattle Products Ltd'



While the site sits within the Digbeth conservation area it is not actually graded in a listing, only locally listed meaning changes to the building is more likely to be approved

Structurally, the site has a grid that must be kept to hold the building up. There is also a big open space in the centre of the building that lacks or has no access to natural light

There is also clear evidence of an extensions to the left side of the building





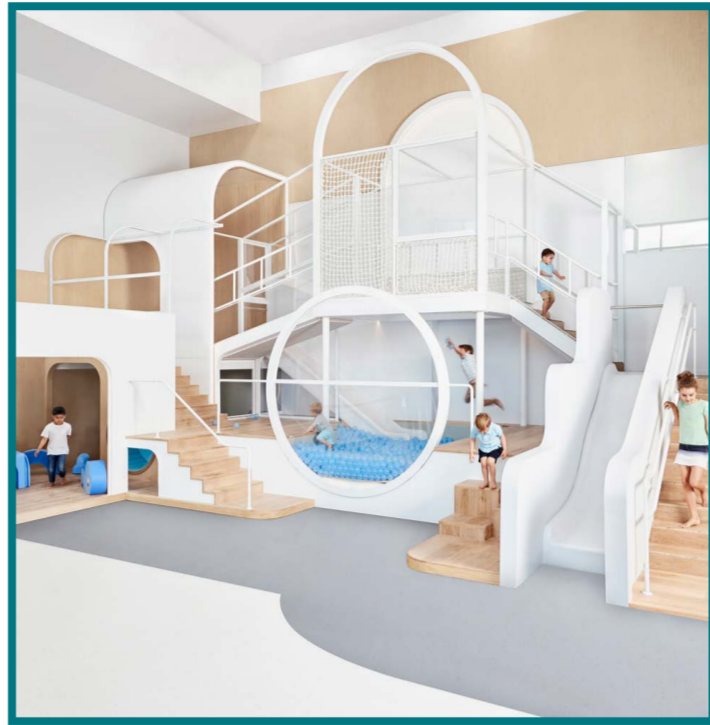
**THE PROBLEM**

The COVID-19 pandemic has had serious effect on the development of children in early years education. This is something that needs to be tackled because all children have a right to the correct support for their needs



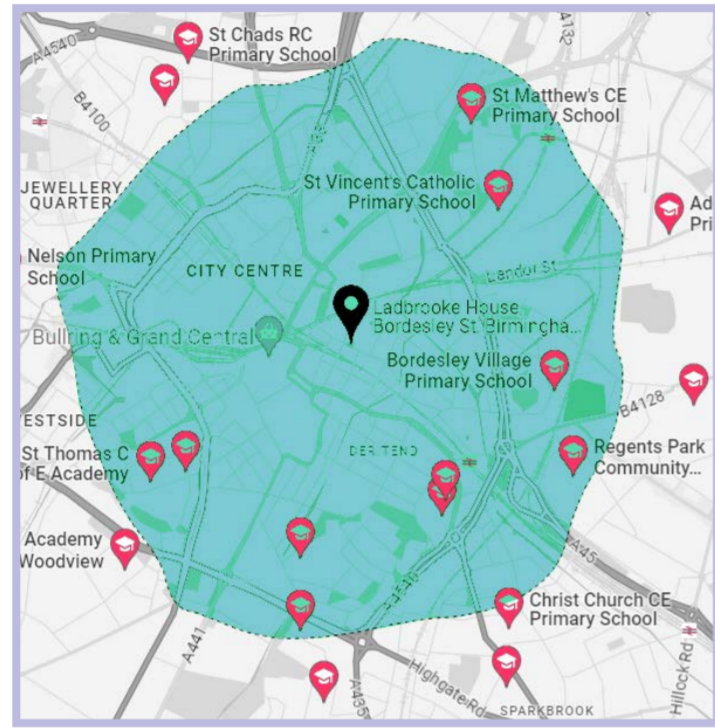
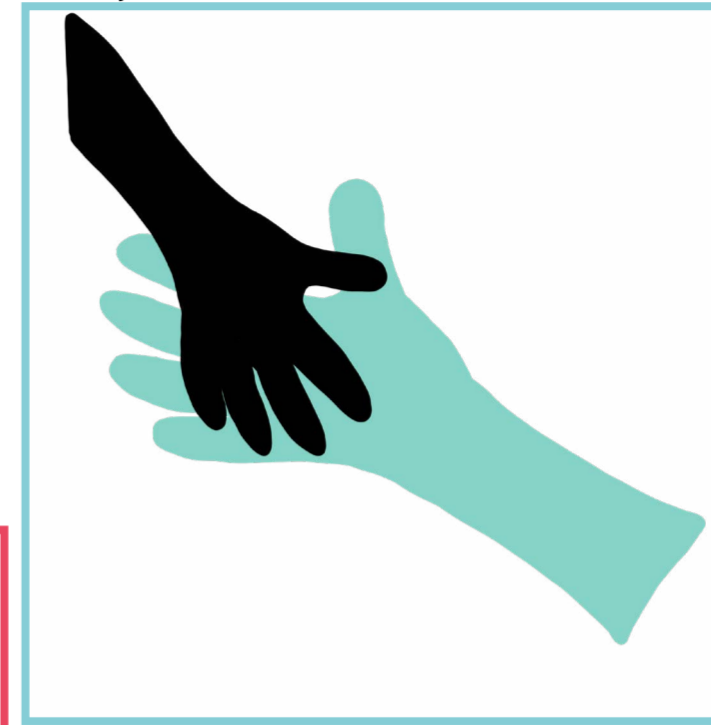
**THE IDEA**

Taking inspiration from the Montessori education style, which is child led learning, A space can be created that accommodates all styles of learning as children do not always absorb information the same way



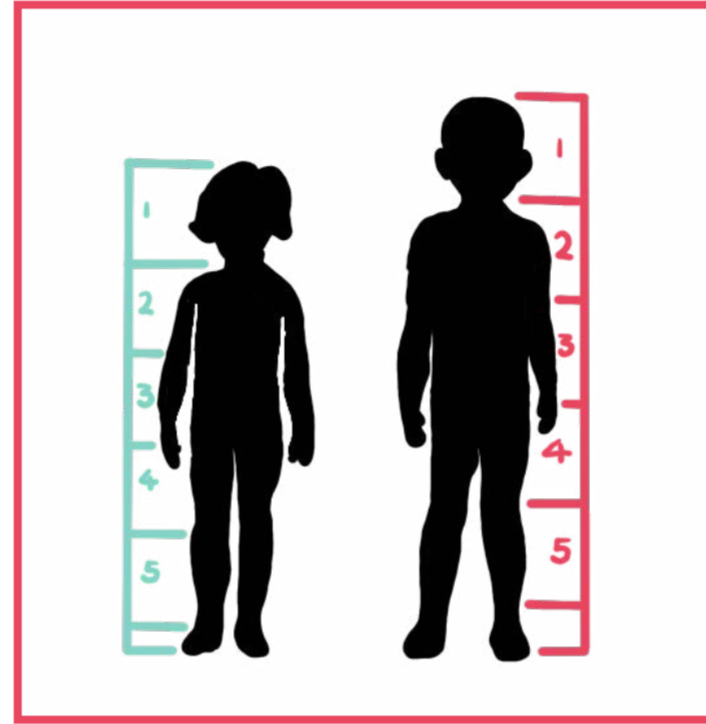
**THE IDEA**

The existing space will be manipulated to create a visual connection of users in the space. Introducing an atrium will allow for the space to feel light and airy and also allow for visual access across all floors, combatting anxiety in children



**THE USER**

The direct context of the site is densely populated with primary schools. This shows that there is a user base for this type of design idea



**THE IDEA**

The Montessori method is supported with the understanding of children's ergonomics and their perspective of a space. This will help inform spatial design decisions



**THE IDEA**

All of these ideas will be supported by Le Corbusier's colour theory in developing a successful space with feature colours and a base material. This ideology also aligns with the materiality and aesthetic of the montessori style

CONCEPT DEVELOPMENT



SECTION AA RENDERED

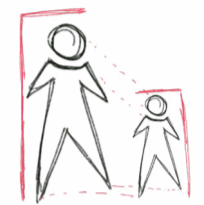


**THE CONCEPT OF THIS DESIGN WAS BUILT ON THE METHOD OF CHILD LED LEARNING. THIS INSPIRED NATURAL AND ORGANIC SHAPES AND I CAPTURED THIS THROUGH SKETCHING AND PHOTOMONTAGE**



**CURVED FORMS**

One of the most dangerous features in a child's space is sharp edges especially when they're aligned with kids' eye levels or near their heads, hands, and legs. To avoid having to add protective extensions or stickers on the corners of furniture pieces, To avoid this, designers create spaces with curved forms, and rounded edges. Aesthetically, this makes the space feel more exciting and fun as there is an unpredictability about it



**SCALE**

Interior spaces built for children should be scaled down to match their height and spatial needs so that they can move around and interact with the space without the intervention or help of an adult. Additionally, being in smaller-scaled spaces removes the feeling of being overwhelmed by regular-sized spaces, allowing kids to feel more safe and unrestrained.



**SENSORY APPEALING THROUGH MATERIALS**

The use of textured surfaces has proved to further enhance children's sensory receptors. Surfaces that create sound with friction or change colors help stimulate kids' senses. Mirrors can also help stimulate children's recognition of their own body and face, and help them learn how to identify facial expressions and emotions. Colours can also improve sensory recognition as children often take to colourful space rather than white spaces

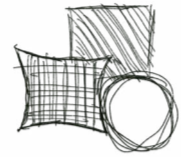


**CONNECTION TO THE OUTDOORS**

Taking into account the importance of the outdoors, architects can give access to nature through direct sunlight, extended landscapes from the outdoors, or water features. Projects built on the ground floor benefit from direct access to adjacent landscapes, giving children room to be out in the open

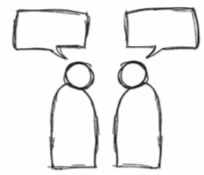
**SAFE MATERIALITY**

It is important to use materials that are easy to clean, harsh-chemicals free, and not prone to housing small insects due to the germs present in a child environment. Including the use of ingergrated handles instead of visible handles is also an example of providing a safe environment as children will not be tempted to pull on these things nor will they fall on them



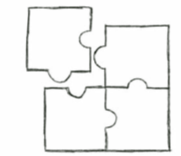
**INTERACTIVE SPACES**

Spaces have been designed to enable natural creativity and freedom of playing and exploring because children learn best through physical engagement in the form of games or physical exercises. While some prefer to refrain from using digital technology at such a young age, others like to engage their children early on



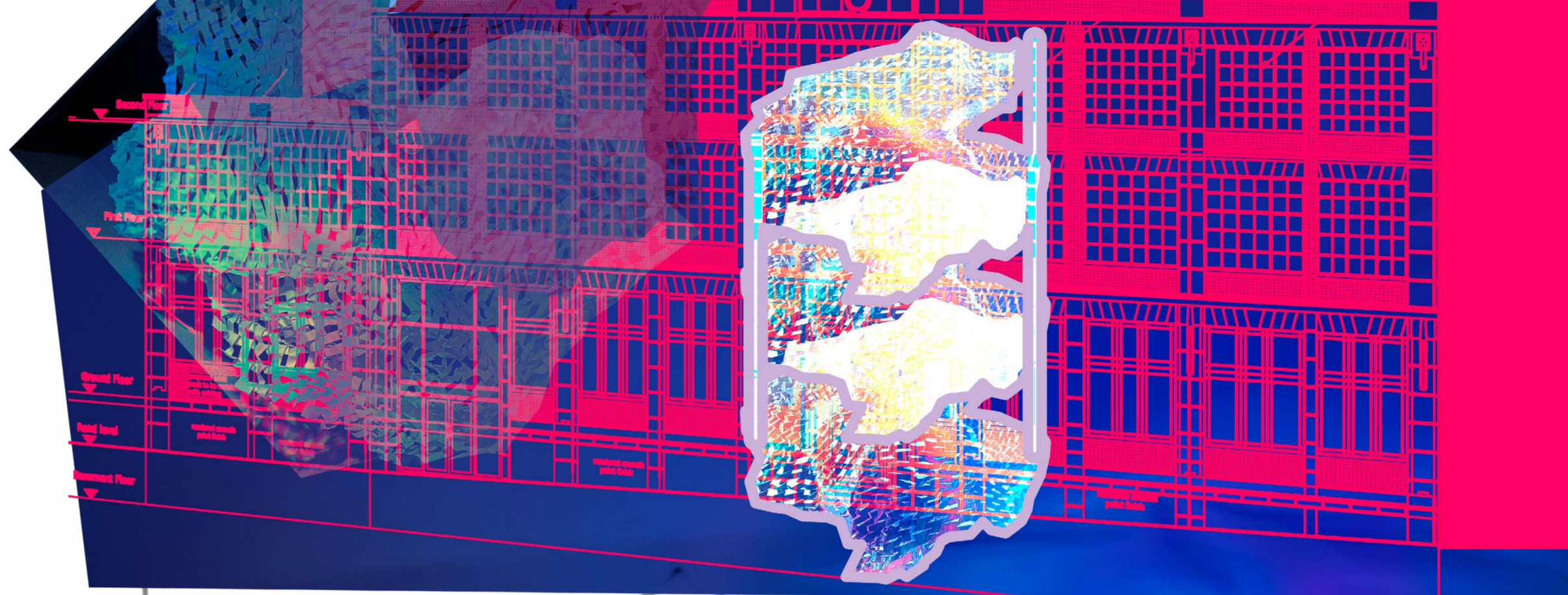
**ACCESSIBILITY AND ADAPTABILITY**

One of the most important characteristics of child-oriented architecture is child-only features. This allows them to rely solely on themselves. Accessible architecture is able to do this by allowing children to explore and navigate the space themselves, however, no child is the same, and each age group has a different set of spatial needs. This is why it is recommended that spaces be flexible, evolving in parallel to children's growth

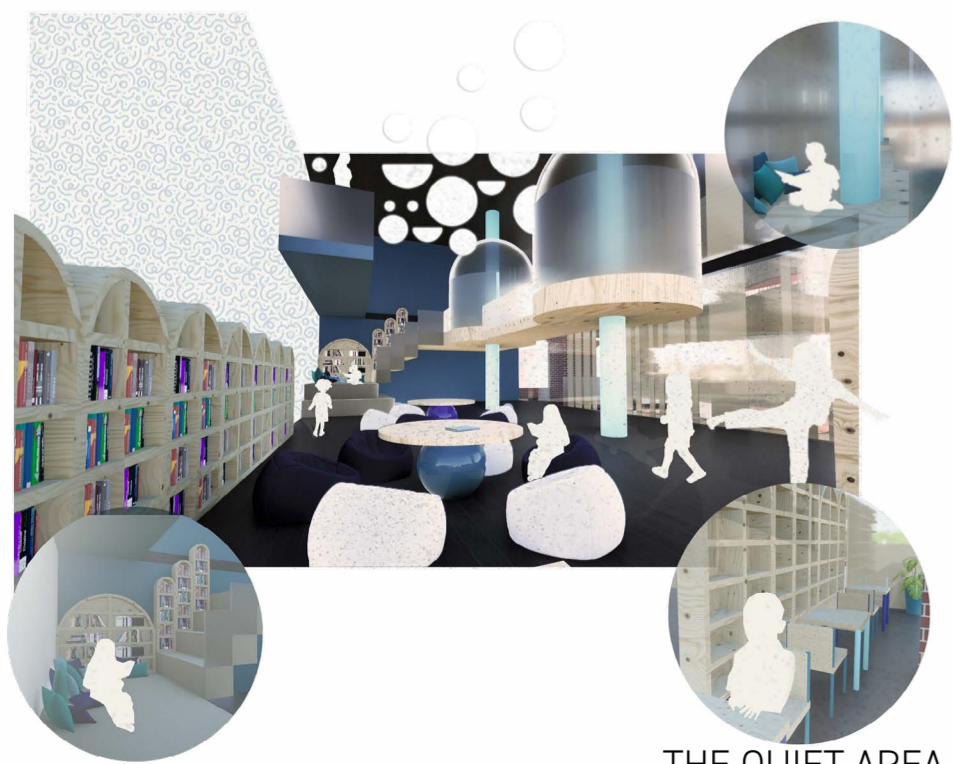


**COLOUR PALETTE**

According to the Montessori method, having a lot of colors and textures in the same environment can cause confusion and irritation for children, especially those in the younger age spectrum. Therefore, the method recommends selecting very few options to help the development of decision-making capacities



**VISUALS**



THE QUIET AREA



THE EXPERIMENT ROOM



THE MAKER SPACE



THE PLAY SPACE

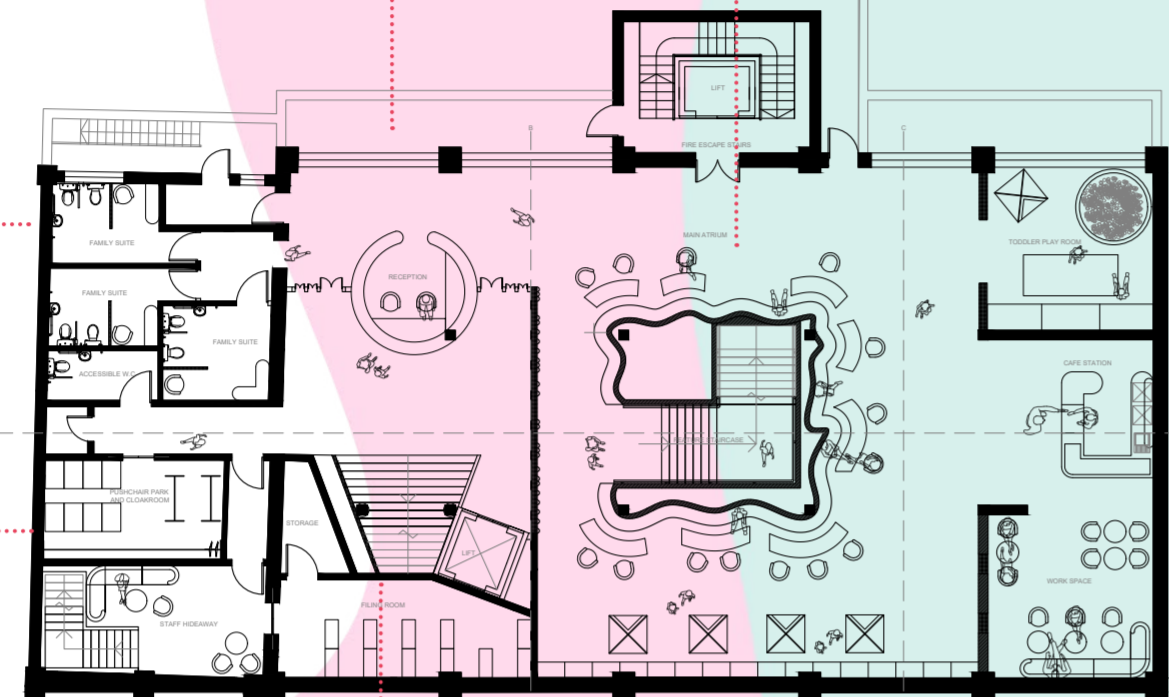


# A HUB FOR SUPPORT...

I think this is a successful space because spatially, I have been able to create a visual connection between parents and children whereby parents can watch their children in different areas of the building from that main space and children in the space get comfort in the fact that their parents are not far away

Design considerations also include family bathroom suites with parent and child toilets and nursing chairs that can be used by all as opposed to single stalls. This is in response to the user types as typically, parents with multiple children will use these bathrooms and so it is important for them to have the space to do so.

Another design decision was to include a safe space for belongings such as coats and particularly pushchairs. This stems from the idea that parents often have to carry around a lot of things for their children so giving them the space to deposit these things temporarily allows for a better user journey



BASEMENT

I decided to add a slide alongside the main entrance staircase as this appeals to the children users of the space and represents the idea of the space being part of an exciting journey - learning does not have to be boring

The areas exist around the main atrium space that is 4 stories high (including the basement). This reflects the earlier design ideas of something vertical in the space that connects all the floors

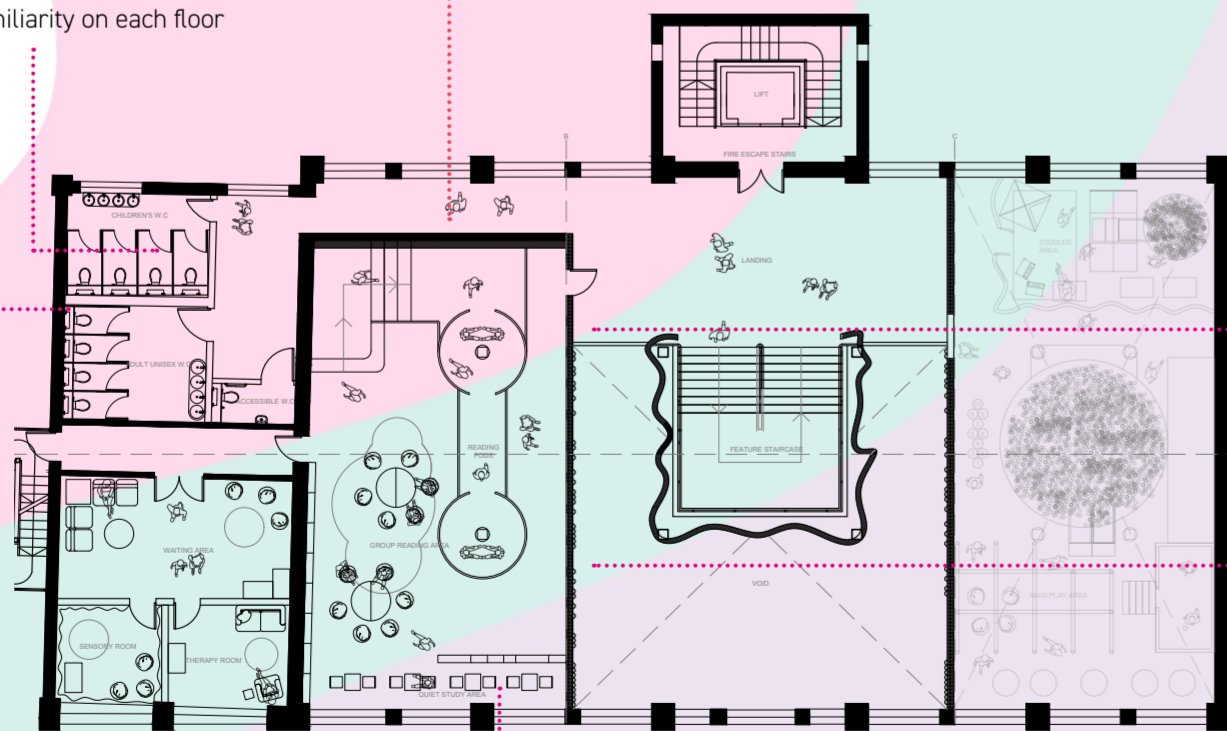
The basement level is mainly tailored to the parents of the space as some would be expected to wait for their children therefore there are different ways in which they can interact with the space:

Working parents have a more private area that can be used hot desk whilst in the space

Parents with younger children have a toddler room with facilities in which they can use to occupy them

Bathrooms on ground, first and second floor are all located in the same area of the building. This is so that wayfinding is easier in the building as it is a large space, particularly for children and children will have that sense of familiarity on each floor

The hallway leading to the bathrooms does not have doors and this allows for children to have their own independence to go to the toilet by themselves but allows for visibility for easy way finding and to also allow for supervision from a distance



FIRST FLOOR

There are both adult and childrens toilets with the childrens toilet being bigger to allow for younger children to be accompanied to the toilet by an adult. These design decisions help make the user journey easier

The quiet area is formed of a series of smaller spaces to create the optimal learning environment for children. The reading pods allow for privacy for children who are overwhelmed without having to leave the space entirely and this creates a better connection between children as it removes that social barrier

The group reading area allows for immersive interaction and the quiet studying area allows for one on one learning

The theme colours of this space as blue tones create a sense of calm in a space

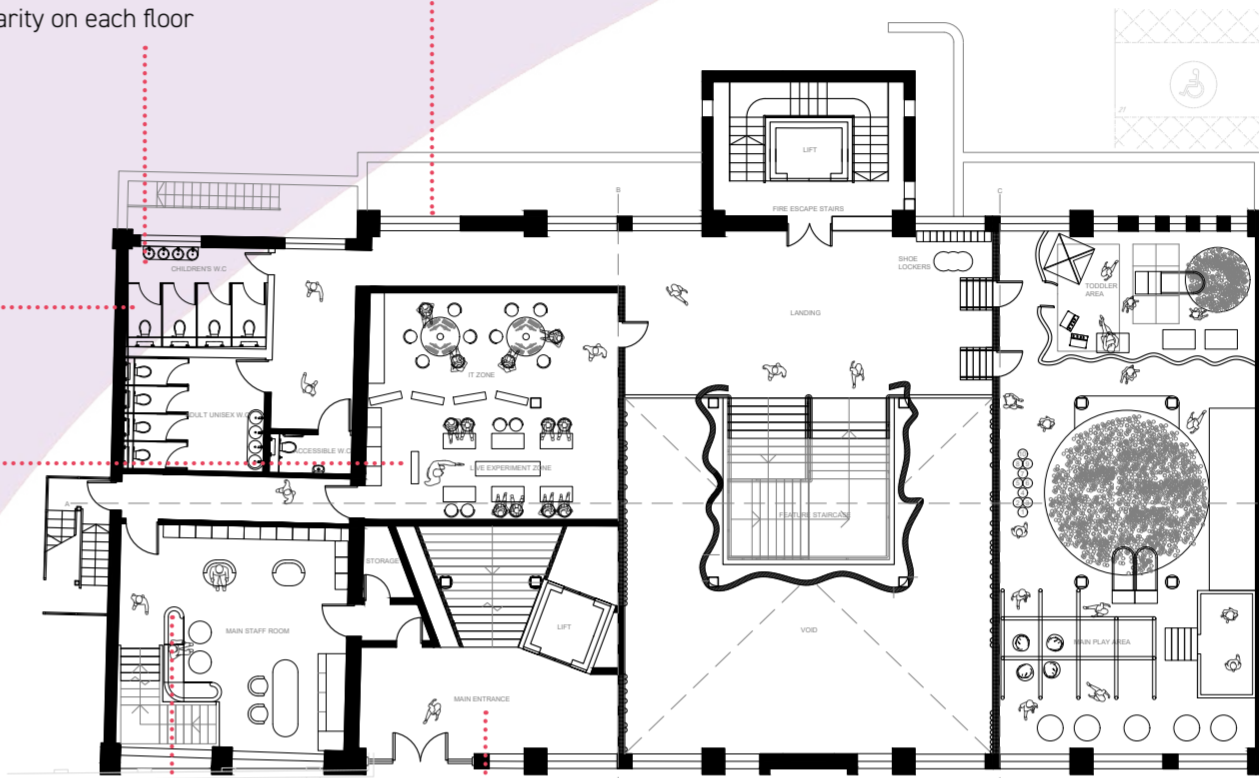
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One of the main areas on this floor is the experimental area. This area links to that of the sciences and IT with the live experiment area and computer room

It is important to note that while computers and technology is not celebrated in montessori learning, I have added this space as it is important for children to have an understanding of these advancements and the rights and wrongs of these technologies alongside enhancing their learning



GROUND FLOOR

All spaces across the ground, first and second floor have flexible spaces that can be adapted to the fluidity of montessori learning. I have designed the spaces this way so as to not restrict what activities can take place in these areas

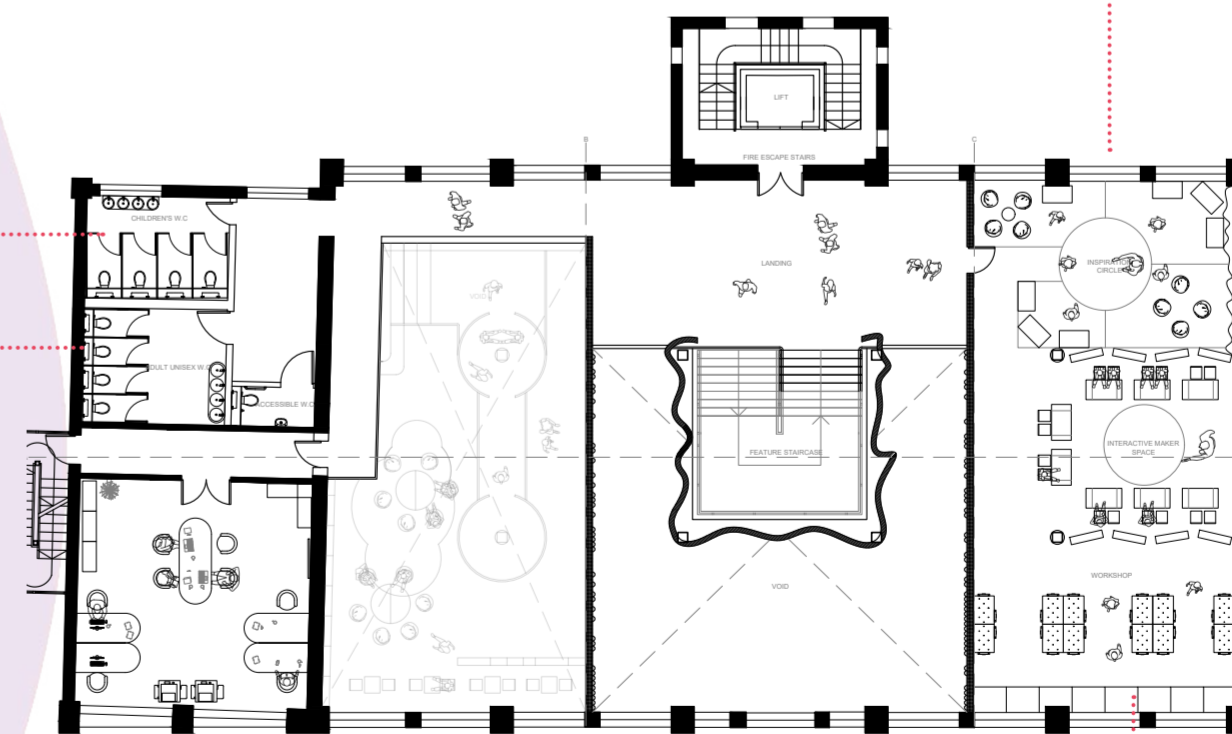
Another main space in this building is the play area. This space consists of two individual spaces that exist in the same room to cater to the 4 to 8 age range that the site caters to. It is evident that 4 year olds will not play in the same way as an 8 year old therefore I have created an area in which they can play appropriate to their ages yet still have that communication and freedom to choose how they want to play

In regards to childrens spatial scale, I have also appealed to different types of play at different heights including rock climbing, chill out areas and hideaways

Due to the layout of the building, users will access the building on the ground floor therefore I have created an entrance area that is designed to easily direct the users down into the space. Again, this creates a sense of journey through the space

Bathrooms on ground, first and second floor are all located in the same area of the building. This is so that wayfinding is easier in the building as it is a large space, particularly for children and children will have that sense of familiarity on each floor

This space serves as a reflective and inspiring space where children will come together to get inspiration from their peers and teacher in regards to creating something such as a product or colouring art. The main idea of this space is to get them to learn about critical thinking



SECOND FLOOR

This space is mainly directed at the younger age range of users of the space. This area is a creative workshop whereby children will be lead by a teacher to create something

This final space is directed at the older children that occupy this space as it is a more independent space. The workshop allows for older children to have their own independence to make something that they would like and learn basic craft skills