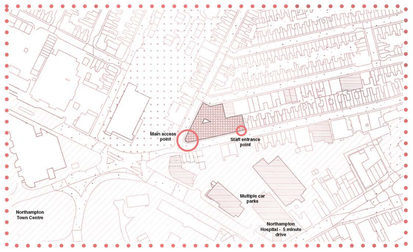
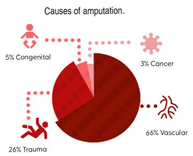
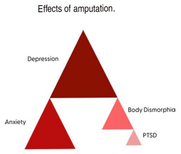
ONE SIZE FITS ALL

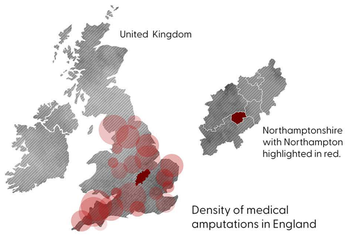
Within the world an amputation occurs every thirty seconds with the procedure being carried out over a million times every year. This problem is prominent within the UK with an average of 25,000 amputations happening each year. Amputations can have a huge impact on people's lives both physically and mentally.

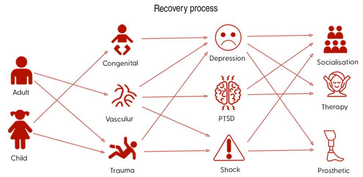


One size fits all is an inclusive rehabilitation centre that focuses on the mental and physical rehabilitation of amputees ranging from children to the elderly. Located within Northampton, the Hawkins factory was one of the largest exporters of the dress shoes at one point within the UK. This project aims to bridge the gap between shoes and prosthetics through the similarities within the layering and structure properties with the purpose of de stigmatising prosthetics and showing that they are just as integral and should be seen as just as important for individuals as shoes are.







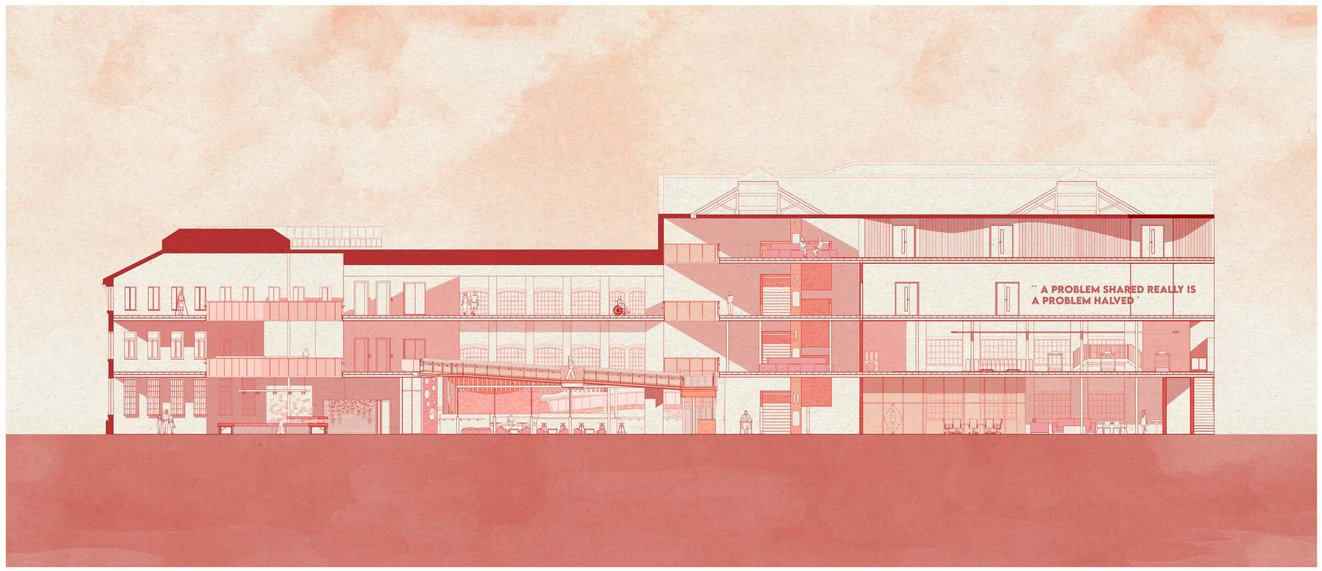


For adults that have lost a limb unexpectedly, they can use the space as way to regain their skills and confidence, it is a space for them to speak to others and learn to accept their situation and adapt to life with their new prosthetic. As an adult, the loss of limbs can have huge impact on home and work life.

Children that attend the space will be mostly those who have lost their limb at childbirth, they will have a different life to most child and will need to learn skills differently. They will most likely be accompanied by their families as well. This space needs to be a place in which they can be expressive and socialise in a non-stigmatised area.

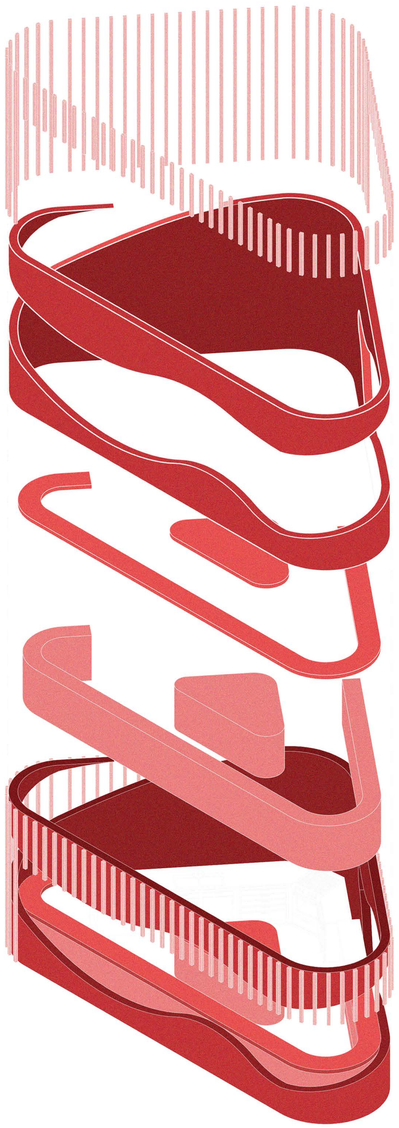
To learn about the specific causes of limb loss and amputation, please scan the QR code – SENSITIVE CONTENT

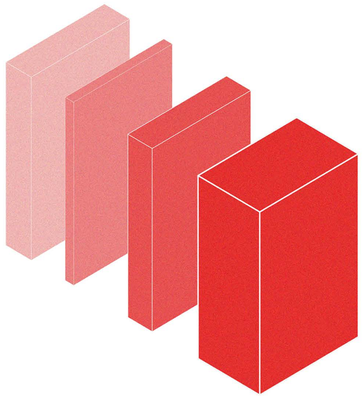
With 75% of amputees being over the age of 75 the site will be mostly filled with senior users; they will have issues manoeuvring around the space and will most likely have issues with things such as signage. Over 51% of elderly people live alone therefore an emphasises will be on socialisation as only 36% are successfully equipped with a prosthetic.

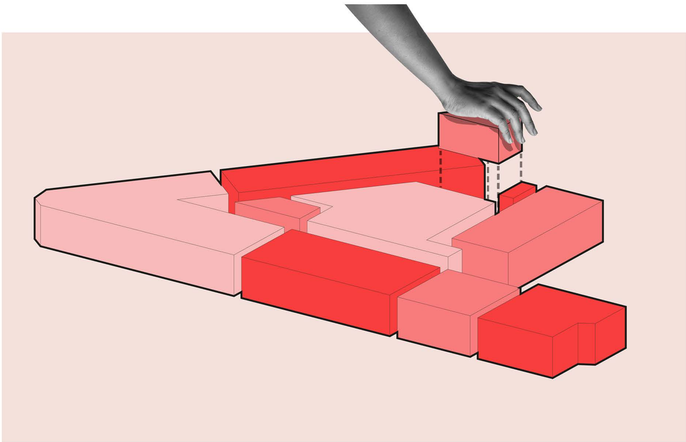


The timeline on the left demonstrates the development of prosthetics, footwear, and the sites history. It demonstrates the increase in technology and awareness in prosthetics compared to the now mumpsimus ideas of high exported dress shoes. This shows that the building is losing its purpose to things such as cheaper exports and therefore loosing purpose. This project works as a prosthetic through adding an intervention that gives the building a new, improved, purpose.

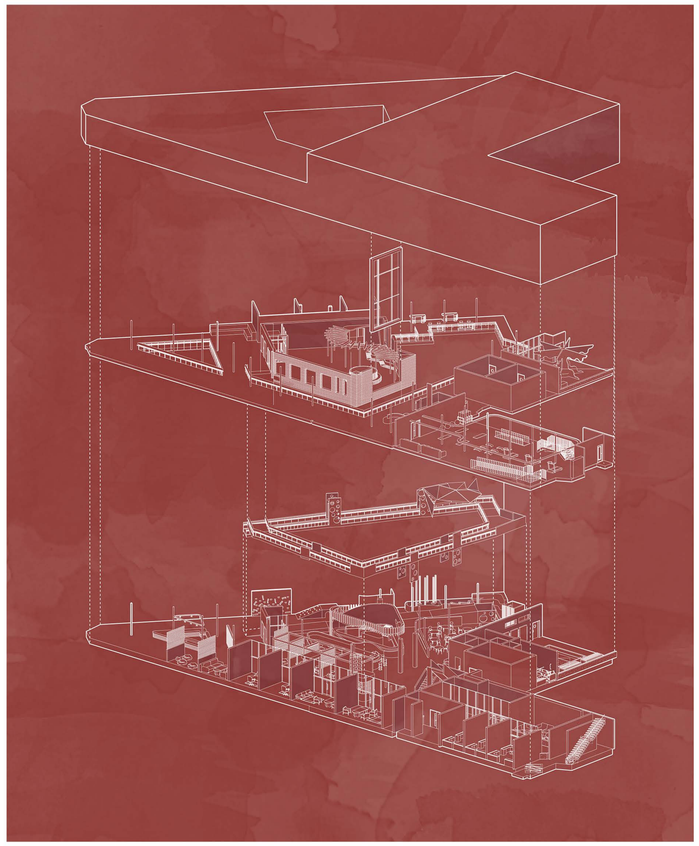
The host building being a shoe factory is very relevant and integral to this project's core concepts as not only does it compare in layering and connectivity to prosthetics, it also conveys the relevance of the shoe and prosthetic industry. Shoes were once hand made by master craftsmen with factories such as this producing bespoke high-quality footwear however as of recent times, the shoe industry has transferred to fast- fashion in which cheap imports and temporary trends have made the need for traditions factories redundant. On the contrast however, prosthetics have seen a dramatic rise in recent years in development and research. It is becoming more and more socialised and has become an individual process for the amputee in which they receive a prosthetic that is custom to them. This shows the building adaption is only relevant in purpose but also relevant in the fact that that is centre acts as a prosthetic for the shoe factory and adapting it to give it new life.

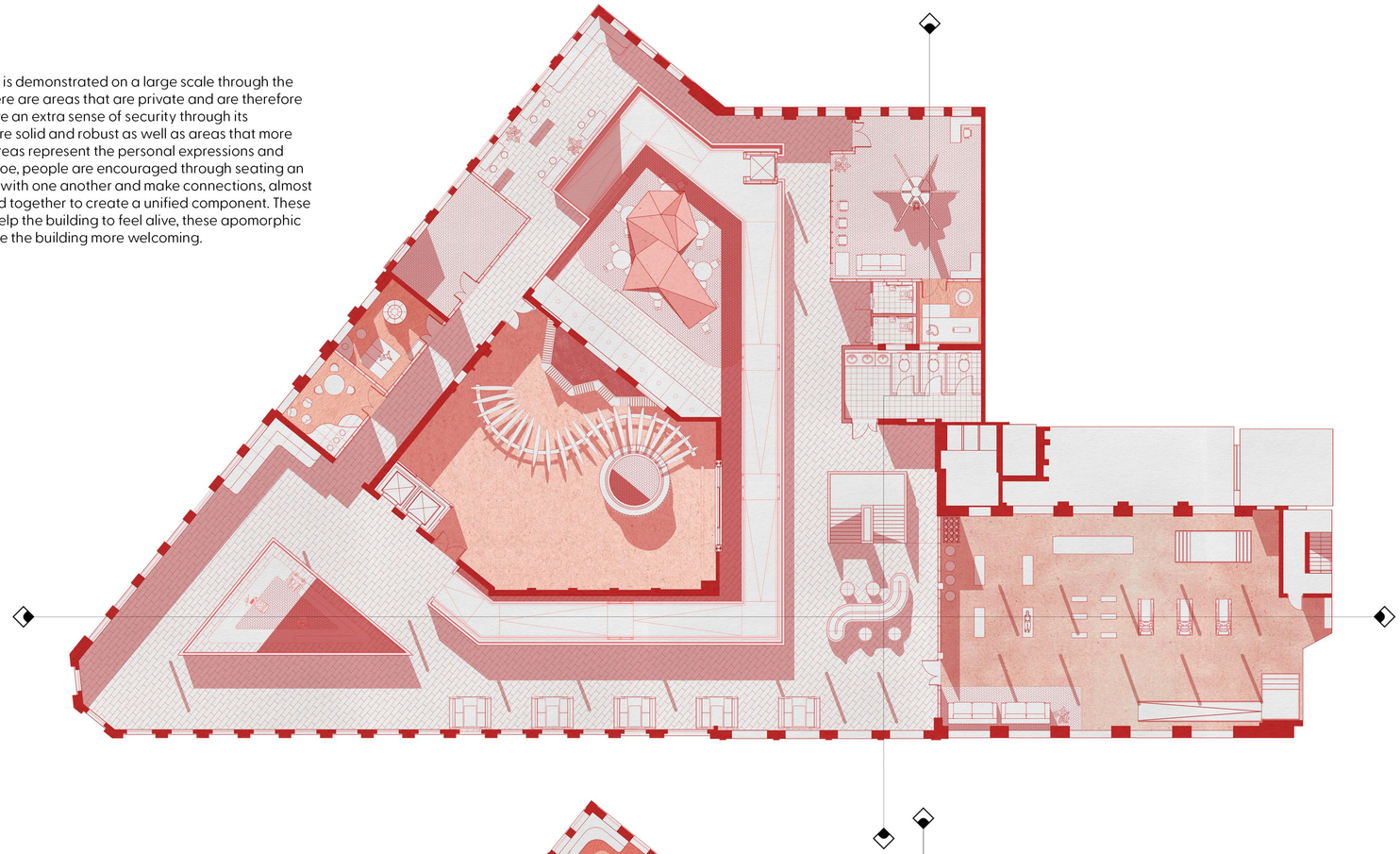




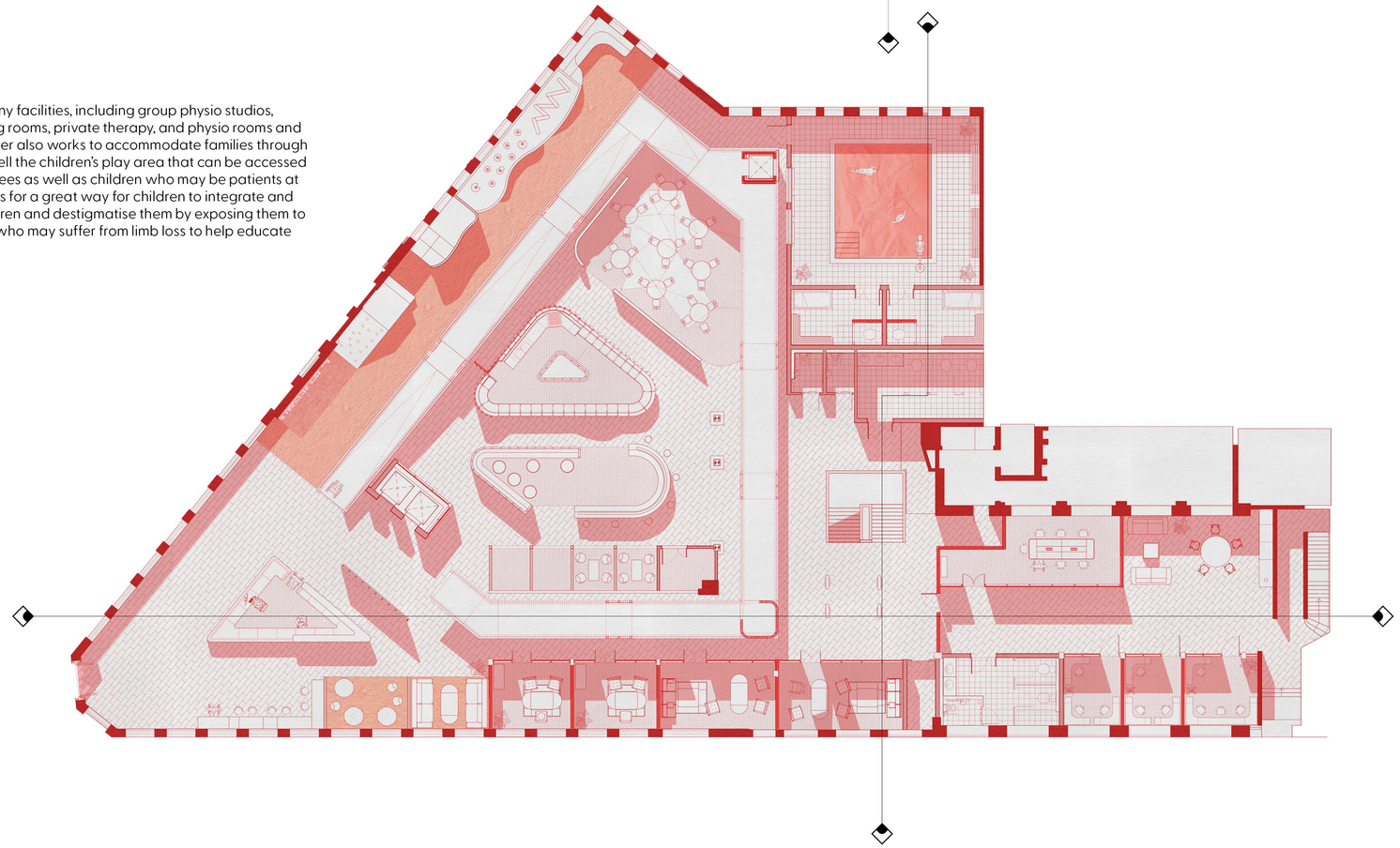


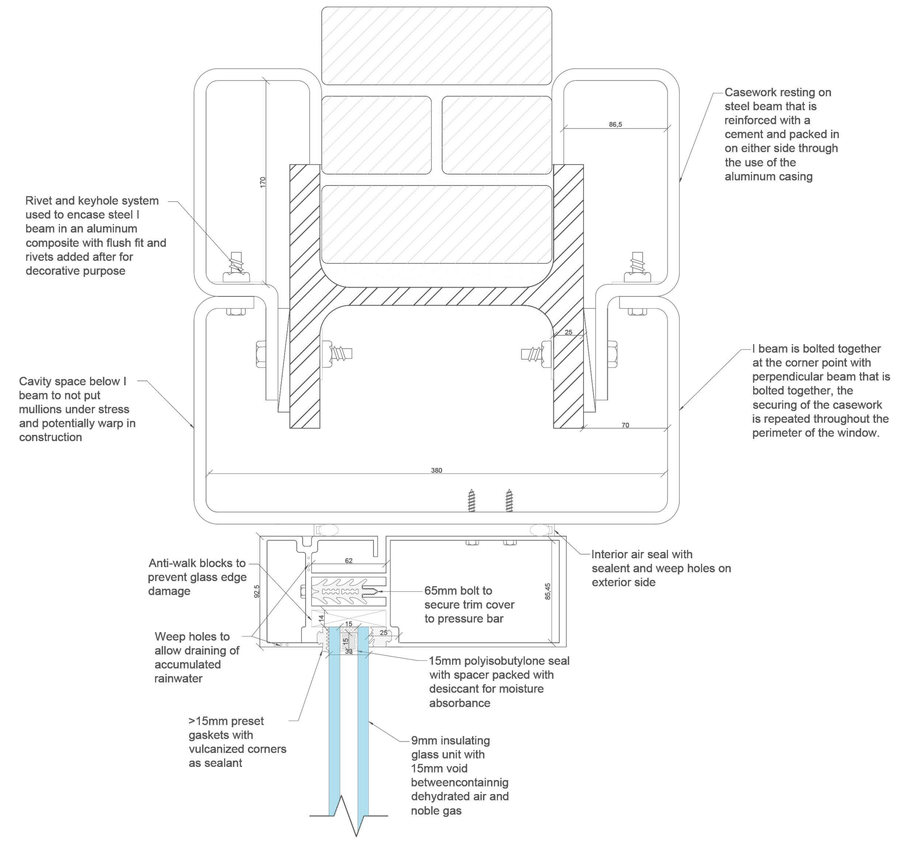
This idea of layering is demonstrated on a large scale through the building's layout, there are areas that are private and are therefore more cladded to give an extra sense of security through its materially being more solid and robust as well as areas that more open. These open areas represent the personal expressions and breathability of a shoe, people are encouraged through seating an lighting to integrate with one another and make connections, almost like stiches that bond together to create a unified component. These different elements help the building to feel alive, these apomorphic properties help make the building more welcoming.



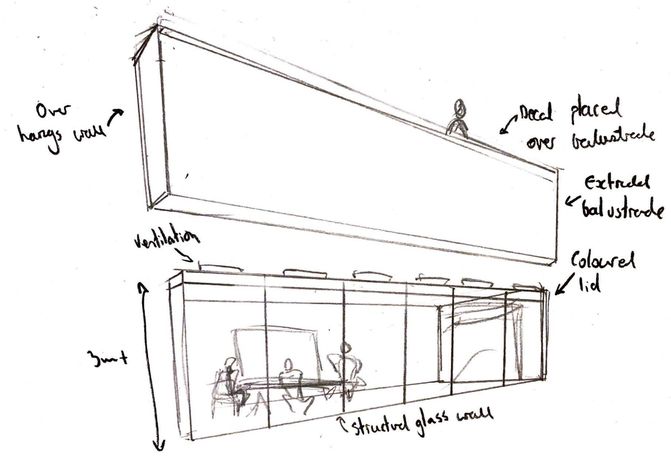


The center holds many facilities, including group physio studios, prosthetic measuring rooms, private therapy, and physio rooms and many more. The center also works to accommodate families through the public café as well the children's play area that can be accessed by families of amputees as well as children who may be patients at the centre. This works for a great way for children to integrate and play with other children and destigmatise them by exposing them to children and adults who may suffer from limb loss to help educate them in acceptance.





The main curtain walling system that spans across three floors within the courtyard is done to reinforce the concept of prosthetics and the value they bring, where the wall was once knocked down, it had been replaced and given a new function. Even in appearance the aluminium cladded frame of the large window and its glass panes acts as a metaphor for the prosthetic as its contemporary choice of material contrasts the industrial, yet more natural, toned brickwork. Overall, the curtain wall embodies this projects ethos; giving purpose to something that has been lost or taken away with an improved function and a transparent attitude towards it.



Hero's Journey

Trials
The ramp will have different activities and different exercises for the users to complete.

Approach
At this point the user is approaching the halfway point where it may be the hardest point in their journey.

Crisis
This is the point where the user may find their journey most difficult.

Treasure
There needs to be a reward that needs to come as a result of overcoming the hurdle of the halfway point.

Departure
The first length will act as the departure where the users will start the journey.

Result
As a result of this reward, they may feel more confident.

Assistance
Assistance can be shown from the physio and rehabilitation staff.

Return
At this point they have successfully scaled the ramp and made it to the first floor,

Call to adventure
The user wants to rehabilitate and regain control of their life.

New life
Once they have made their way up the ramp for a first time, they should be able to go up and down as they please.

Resolution
What they have learnt from being able to move up the ramp will carry over to their normal life.

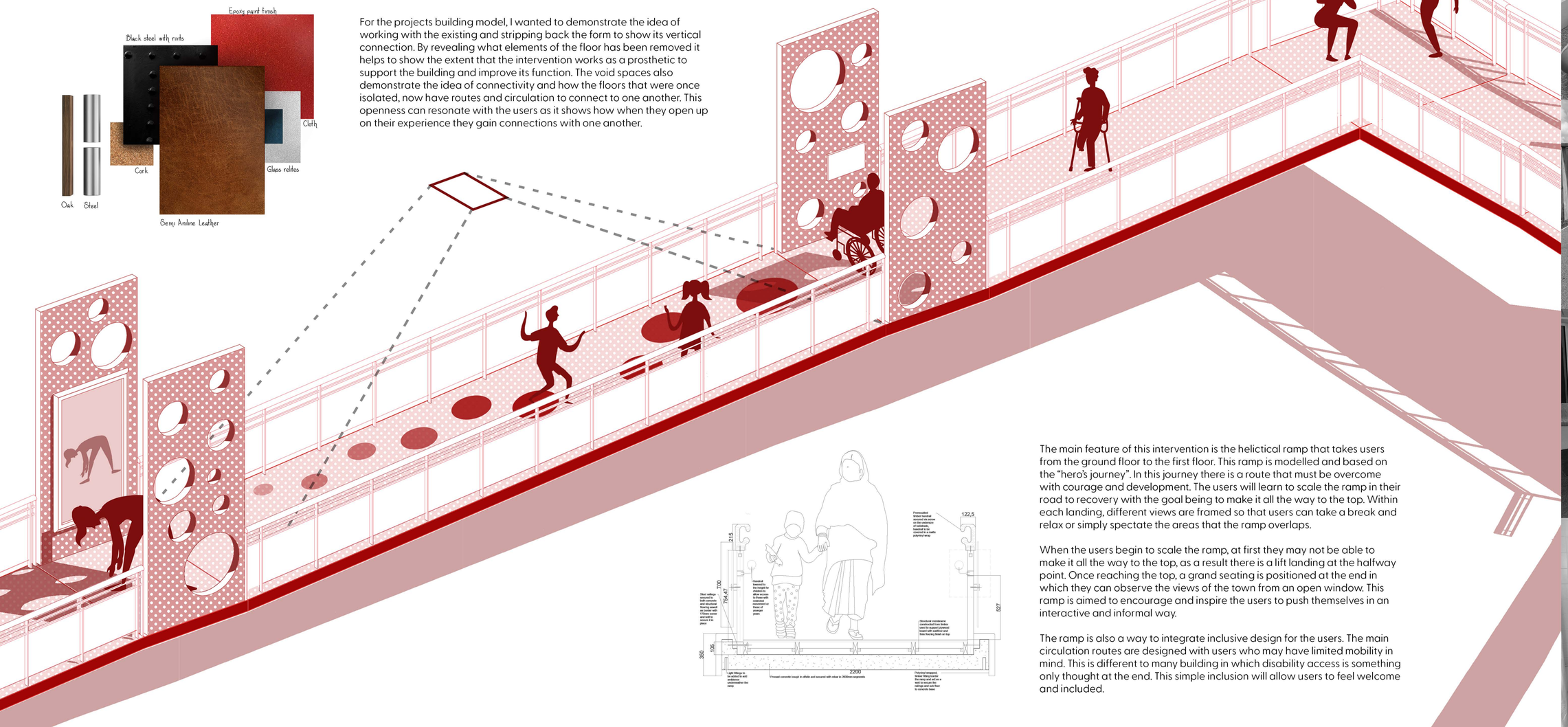
Northampton is a town that is only twenty minutes from where I live in Kettering, I often visited there and would come to understand and learn about its past with shoemaking and the country in general being synonymous with the trade.

I began to look at this building after realising that I wanted to base the brief around prosthetics and was looking for a factory type building. I liked this type of building due to its rigid structure and history and ability to adapt in form.

I wanted to base my work around prosthetics after visiting a special needs school and coming to understand the importance of both understanding and improving facilities for disabled users and realising the potential that design has to improve people's wellbeing.

After choosing this building for its location and relation it has to home, I was able to put together the link between shoes and prosthetics, if by choosing a different building the project may have looked completely different.

For the projects building model, I wanted to demonstrate the idea of working with the existing and stripping back the form to show its vertical connection. By revealing what elements of the floor has been removed it helps to show the extent that the intervention works as a prosthetic to support the building and improve its function. The void spaces also demonstrate the idea of connectivity and how the floors that were once isolated, now have routes and circulation to connect to one another. This openness can resonate with the users as it shows how when they open up on their experience they gain connections with one another.



The main feature of this intervention is the helictical ramp that takes users from the ground floor to the first floor. This ramp is modelled and based on the "hero's journey". In this journey there is a route that must be overcome with courage and development. The users will learn to scale the ramp in their road to recovery with the goal being to make it all the way to the top. Within each landing, different views are framed so that users can take a break and relax or simply spectate the areas that the ramp overlaps.

When the users begin to scale the ramp, at first they may not be able to make it all the way to the top, as a result there is a lift landing at the halfway point. Once reaching the top, a grand seating is positioned at the end in which they can observe the views of the town from an open window. This ramp is aimed to encourage and inspire the users to push themselves in an interactive and informal way.

The ramp is also a way to integrate inclusive design for the users. The main circulation routes are designed with users who may have limited mobility in mind. This is different to many building in which disability access is something only thought at the end. This simple inclusion will allow users to feel welcome and included.