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Level 1 Design and Visual Communication 2025

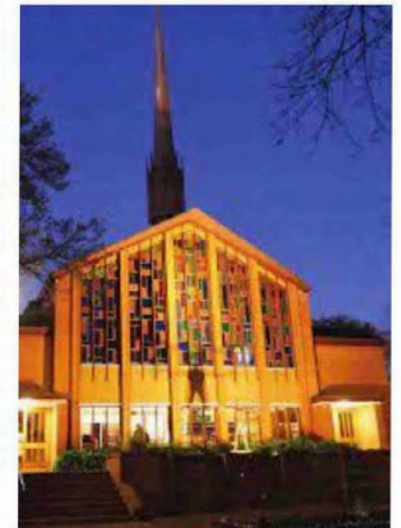
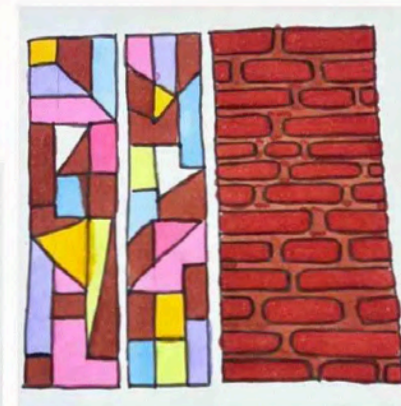
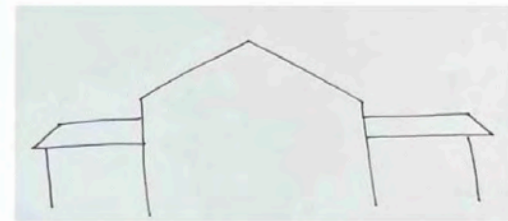
**92002 Develop product or spatial design ideas
informed by the consideration of people**

EXEMPLAR

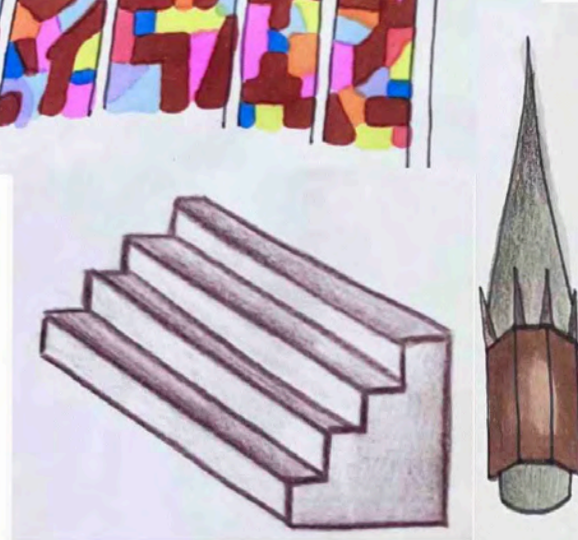
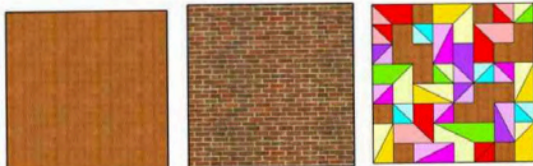
Excellence

TOTAL 07

Chosen investigation – chapel

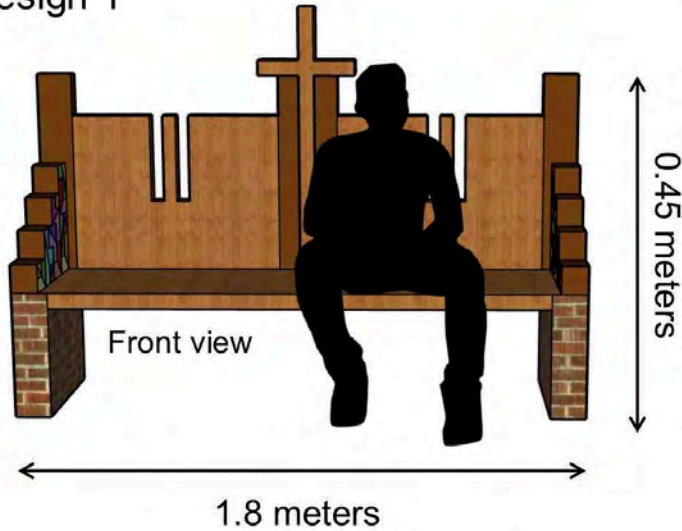


Materials: wood, bricks and stained glass

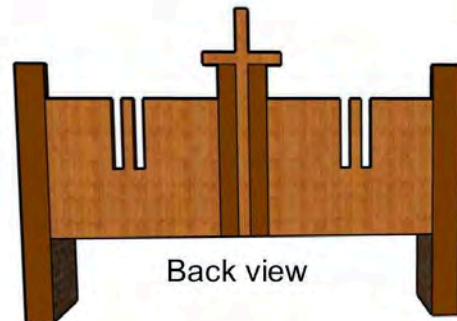


Initial Ideas

Design 1



The bench is 1.8m wide, fitting 3 people. The seat is 0.45m high. The backrest is 0.5m tall, with the cross making it about 1.3m high. Armrests sit 0.2m above the seat. The brick base is 0.3m tall.



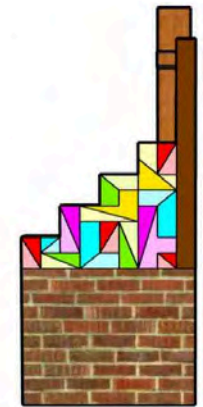
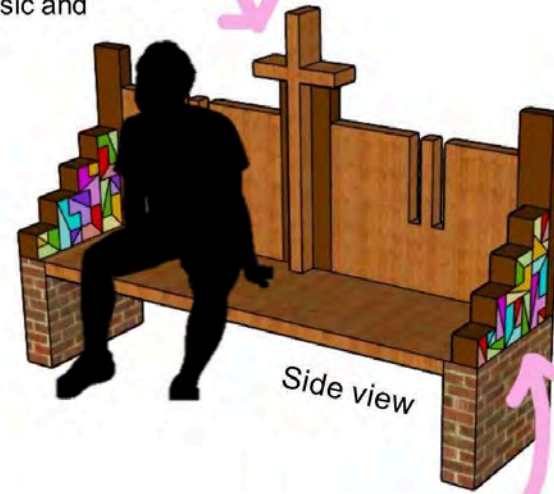
This idea is inspired by the chapel pews and the Christian cross. The tall backrest copies the vertical lines from the chapel windows and gives a formal, respectful feeling

The wooden seat and tall backrest are like the benches in the chapel, giving the design a formal, basic and respectful feeling.

- Materials
- Wood
 - Bricks
 - Stained glass

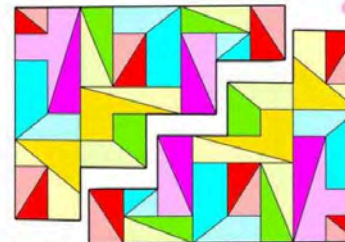


The bold cross connects the design to Christian beliefs, making the seat more meaningful.



0.5 meters
Side view

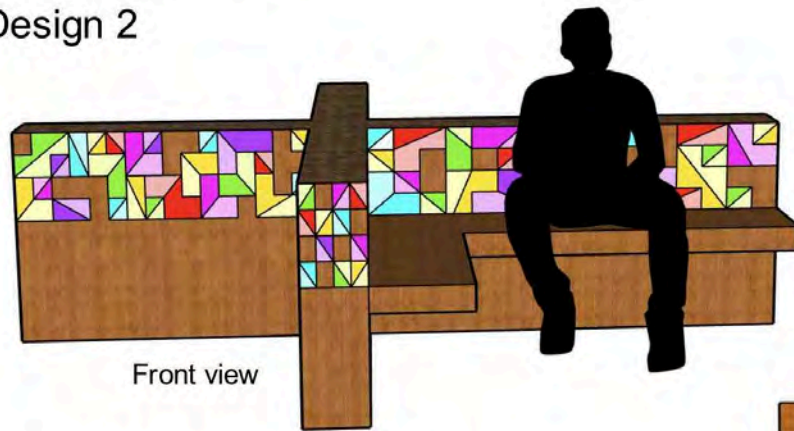
Stained glass arm rest



The design features stained-glass arm rest shaped to look like church windows.

Initial Ideas

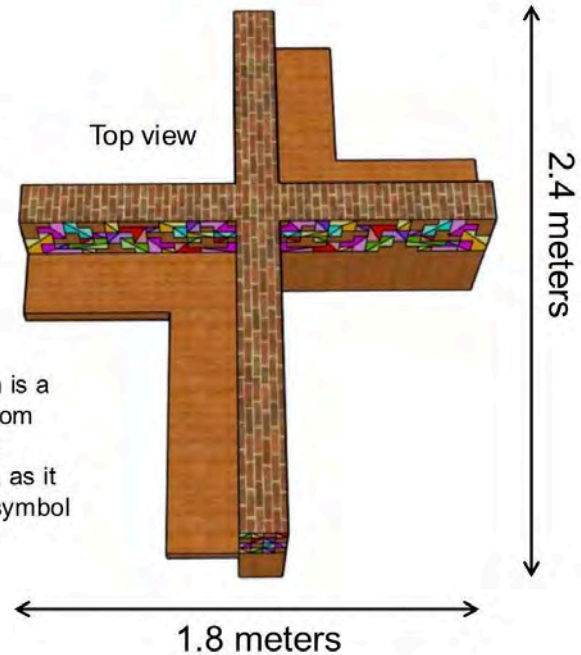
Design 2



The cross layout also encourages community and reflection from different angles.

This idea uses the cross shape as the whole seating layout. People can sit facing different directions, which allows both group conversation and quiet reflection.

The overall shape of the bench is a Christian cross when viewed from above. This makes the seating arrangement more meaningful, as it allows people to sit within the symbol of Christianity itself.



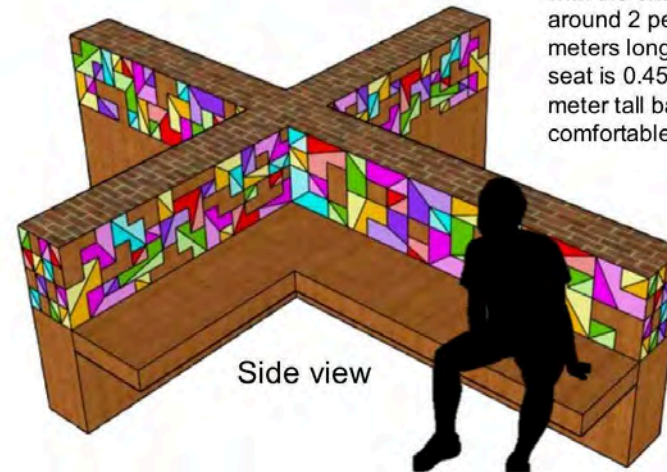
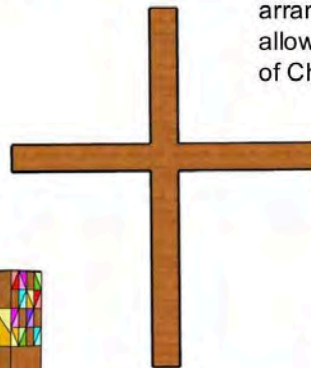
The bench is designed as a cross shape, with the short sides 1.8 meters long to fit around 2 people, and the long sides 2.4 meters long to fit around 3 people. Each seat is 0.45 meters high and has a 0.5 meter tall backrest, providing comfortable seating

- Materials
- Wood
 - Bricks
 - Stained glass



The backrest features colorful stained glass panels, just like those in the chapel windows. They add brightness and make the seat feel special and peaceful, like being inside the chapel.

Cons: Some people may find the idea of sitting on a cross shape disrespectful or inappropriate, since the cross is a sacred Christian symbol.

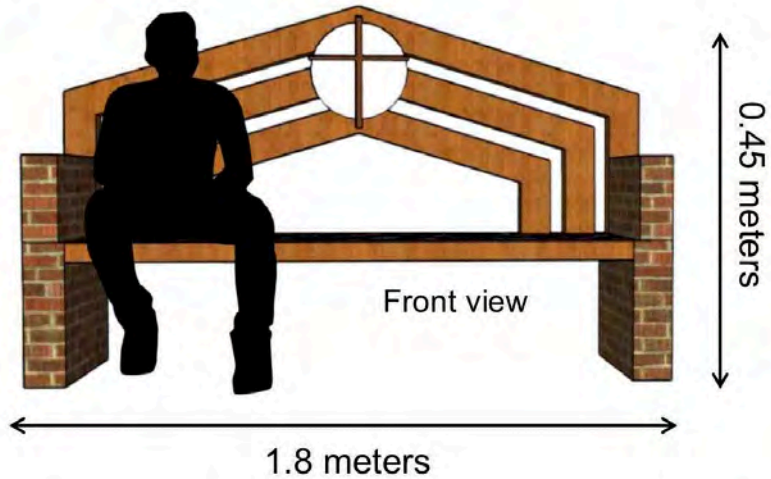


The cross layout also encourages community and reflection from different angles.



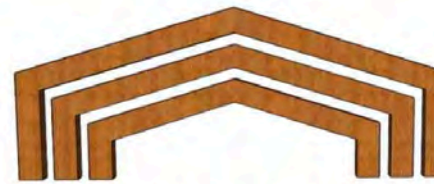
Initial Ideas

Design 3 (chosen design)

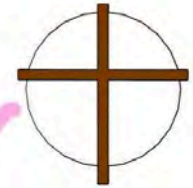


The bench is 1.8m wide to fit three people. The seat is 0.45m high, which is a comfortable height for sitting. The backrest is 0.5m tall, and with the triangle shape, total height reaches around 1.4m. The armrests are 0.2m above the seat, and the brick sides are about 0.3m tall, making the bench feel strong and stable.

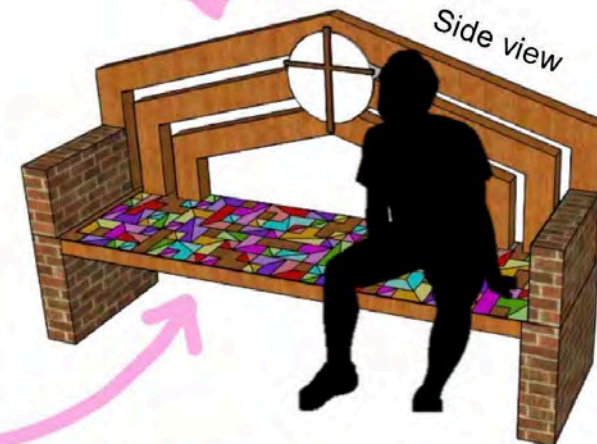
- Materials
- Wood
 - Bricks
 - Stained glass



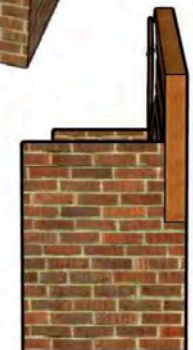
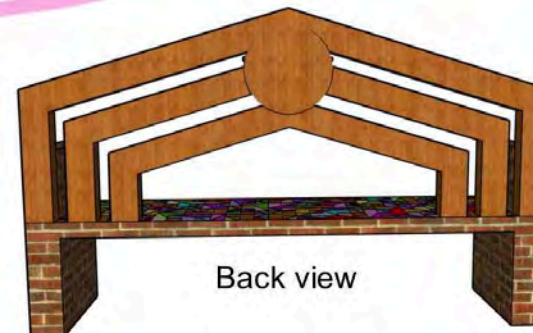
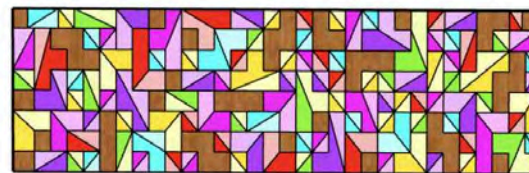
The added wooden frames create a stronger link to the chapel's timber roof structure.



The cross in the circle is a strong symbol of christianity, which makes the seat meaningful and connects it to christian values and religious.



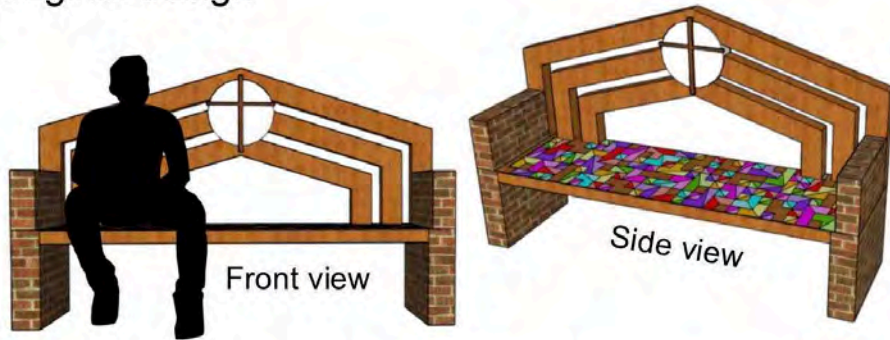
I added stained glass to the seat instead, creating a strong connection to the chapel's windows.



0.5 meters
Side view

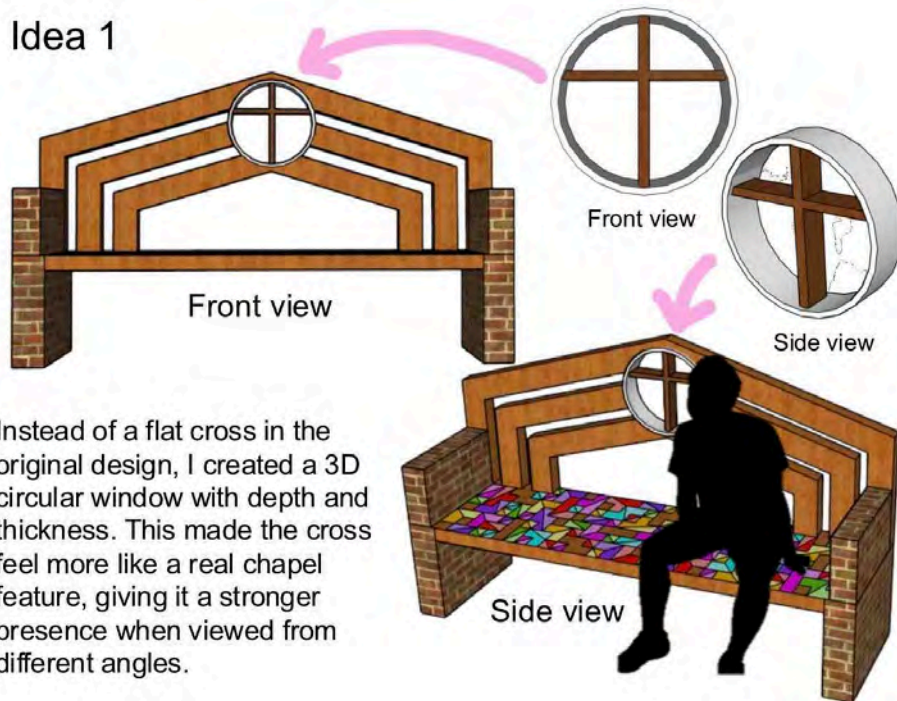
Aesthetic Development – Design 3

Original design



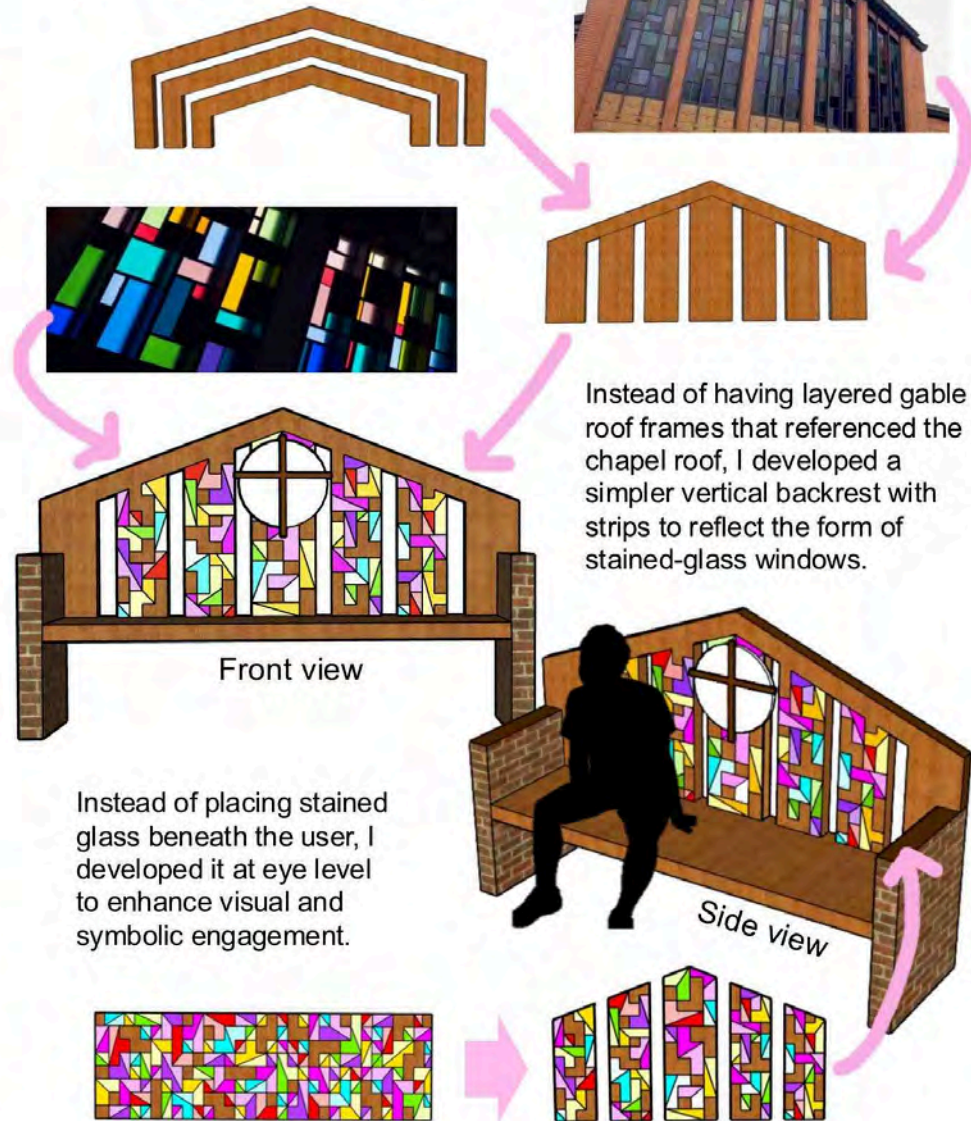
The original design was based on a chapel shape, using layered wooden frames to look like a roof. Stained glass was placed on the seat, but it didn't feel very practical or fully connected to the chapel idea.

Idea 1



Instead of a flat cross in the original design, I created a 3D circular window with depth and thickness. This made the cross feel more like a real chapel feature, giving it a stronger presence when viewed from different angles.

Idea 2 (chosen design)

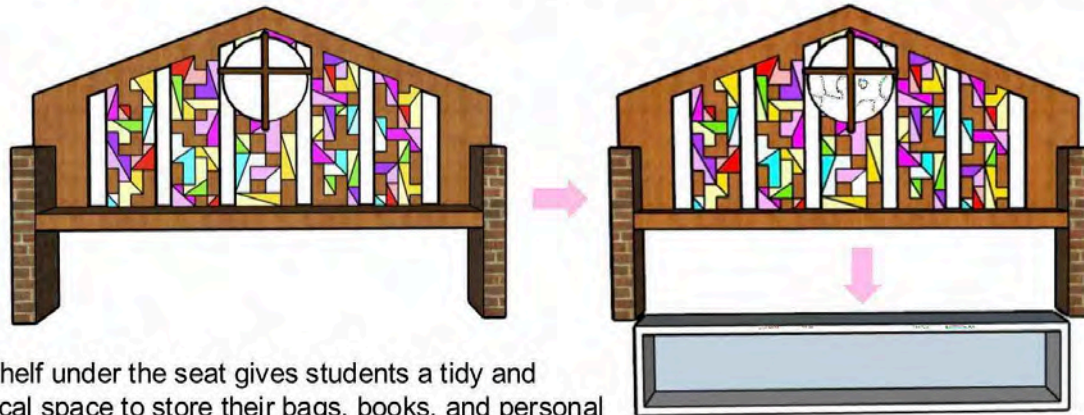


Instead of having layered gable roof frames that referenced the chapel roof, I developed a simpler vertical backrest with strips to reflect the form of stained-glass windows.

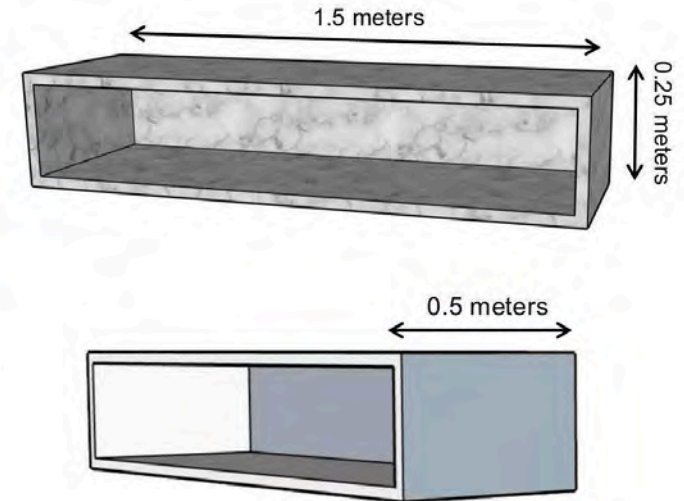
Instead of placing stained glass beneath the user, I developed it at eye level to enhance visual and symbolic engagement.

Instead of having stained glass on the seat, which made it less visible and potentially uncomfortable, I developed the design by placing the stained glass on the backrest to create a stronger visual and symbolic connection to the chapel's tall windows.

Function Development – storage of school bags

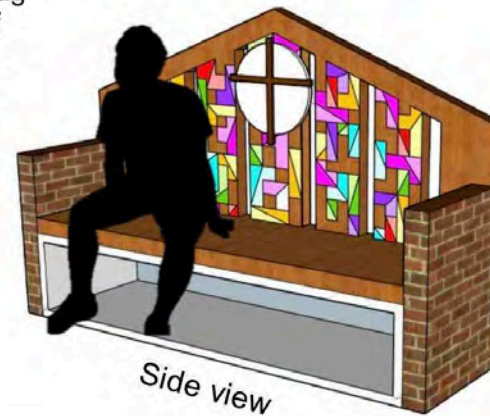
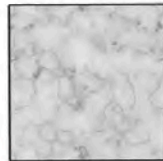


The shelf under the seat gives students a tidy and practical space to store their bags, books, and personal items during chapel services, assemblies, or school events. This helps keep the area organized and easy to move around in.



The shelf is 1.5m wide, 0.5m deep, and 0.25m high, perfectly sized for a standard Macpac bag to be stored horizontally. By keeping items off the floor, it helps maintain a clean, respectful, and peaceful chapel atmosphere while being functional for everyday school use.

Material: Carrera Marble



Pros

- Easy access to stored items
- Simple design
- No door, reducing manufacturing cost.

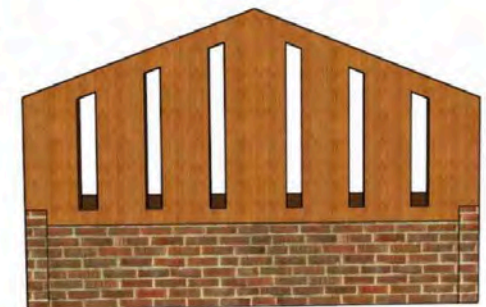
Cons

- Items are exposed to dust or dirt.
- Less secure storage, risking items falling out or being misplaced.



Front view

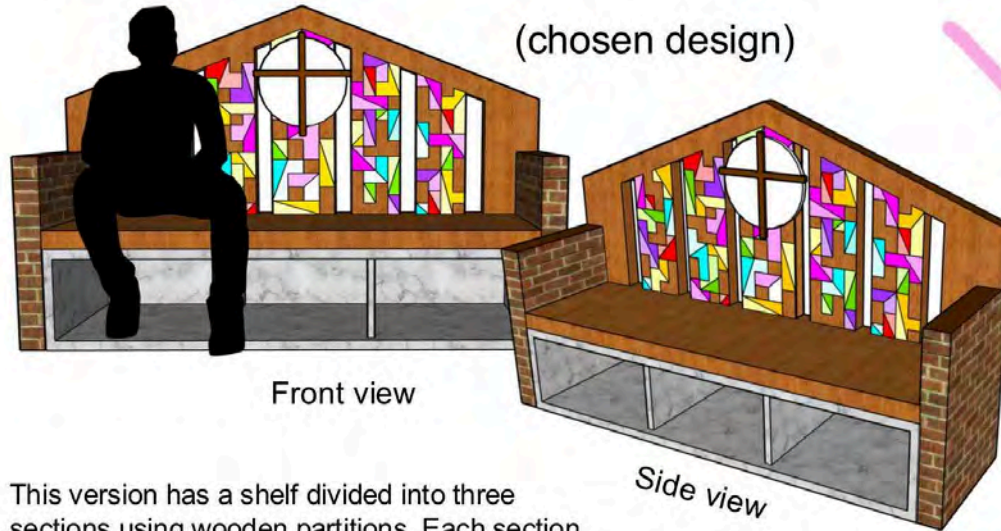
The design suits Macpac school bags, which most students use. The shelf allows bags to lie flat, keeping the seating area neat and safe from clutter or tripping hazards during busy gatherings.



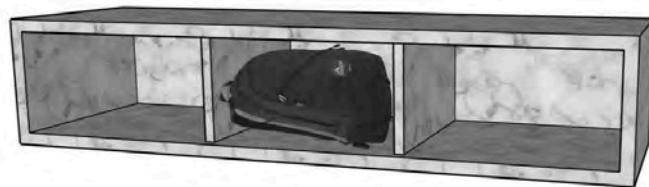
Back view

Function Development – storage of school bags

Alternative Ideas

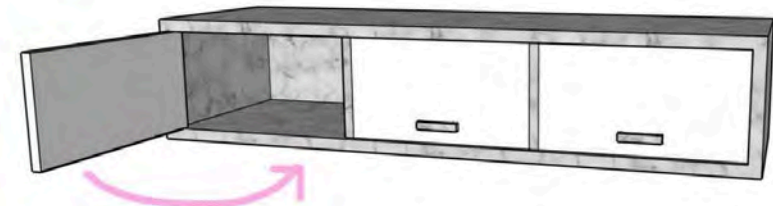


This version has a shelf divided into three sections using wooden partitions. Each section is meant for one person to store their school bags or belongings. The open design makes it easy to see and access items quickly.



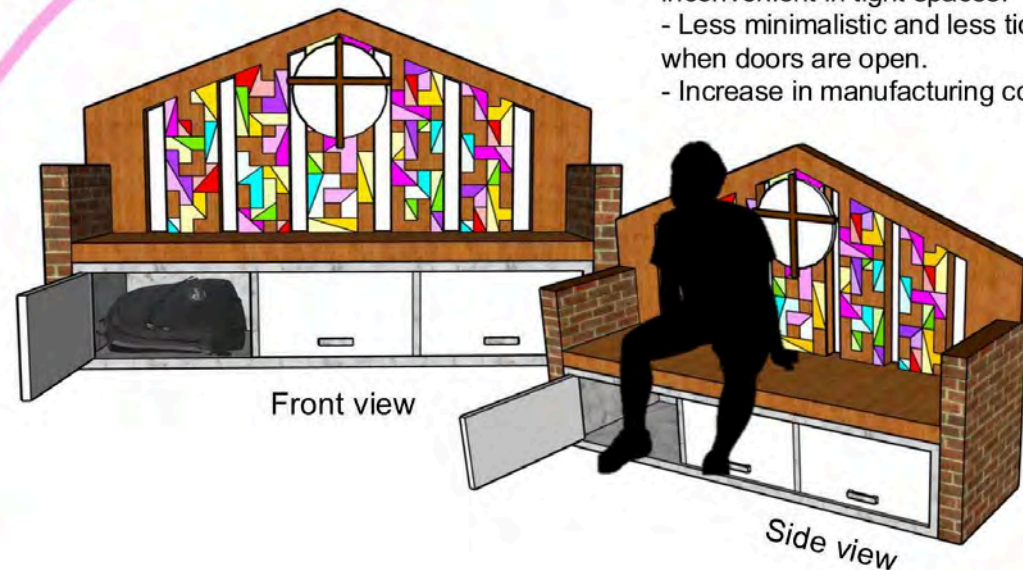
- Pros
- Easy access for each person, clear separation.
 - Simple design
 - Cost-effective to produce.
- Cons
- Items are exposed to dust or dirt.
 - No security for stored belongings

This version adds doors to the divided compartments, so belongings can be kept hidden and protected from dust or damage. When closed, it looks neat and tidy, which makes it good for organized spaces.



- Pros
- Fully enclosed
 - Looks tidy and neat when closed.
 - Secures personal belongings if needed.

- Cons
- Doors require space to open, inconvenient in tight spaces.
 - Less minimalistic and less tidy when doors are open.
 - Increase in manufacturing cost.

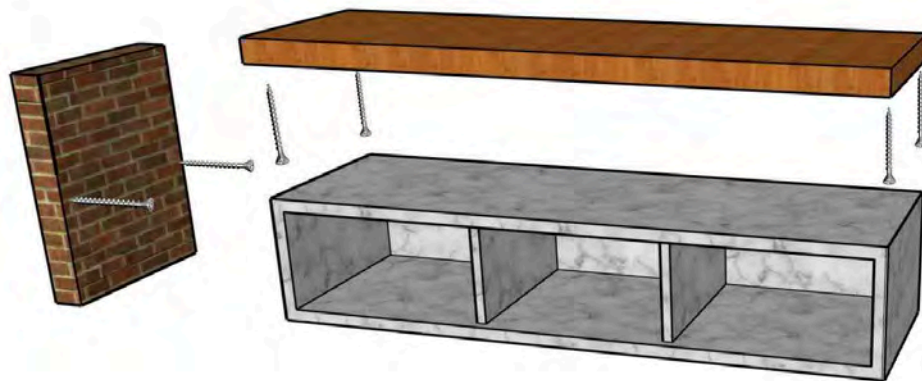
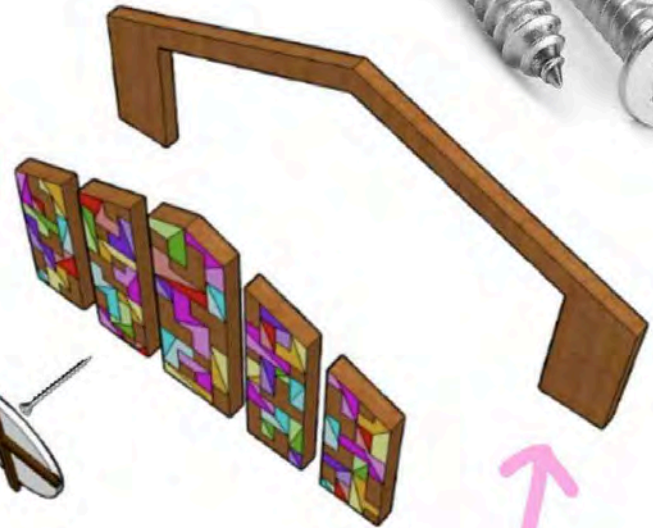


Construction Development

The wooden parts are joined using simple but strong joinery methods such as screws, dowels, and metal brackets. Which keeps the design clean, neat, and easy to assemble, while ensuring the structure doesn't move or wobble.

The stained glass panels are set into shallow wooden frames and attached using clear adhesive. They don't go all the way through the wood but are fitted tightly so they stay secure and allow light to pass through.

The circular cross is fixed into the center panel using small screws from the back.



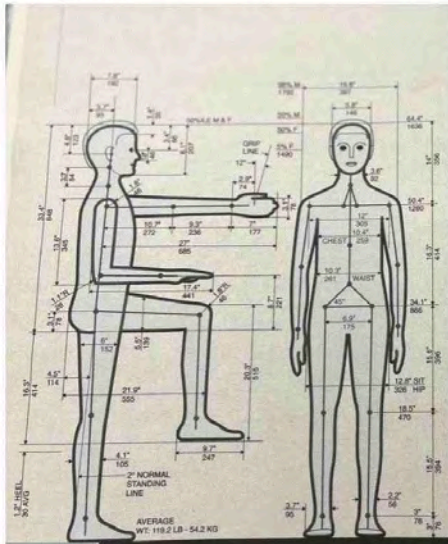
The backrest is made from separate wooden panels that form the outer frame around the stained glass. These panels are joined together with glue at angles to create the triangle shape inspired by the chapel roof.



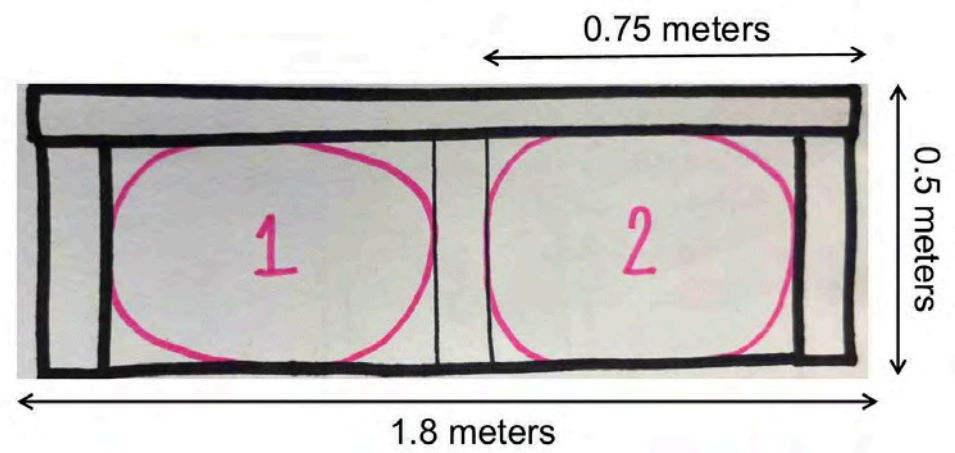
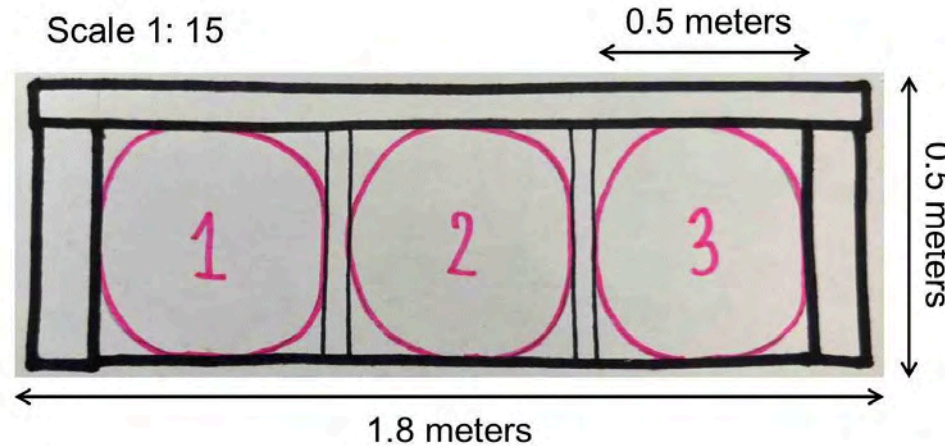
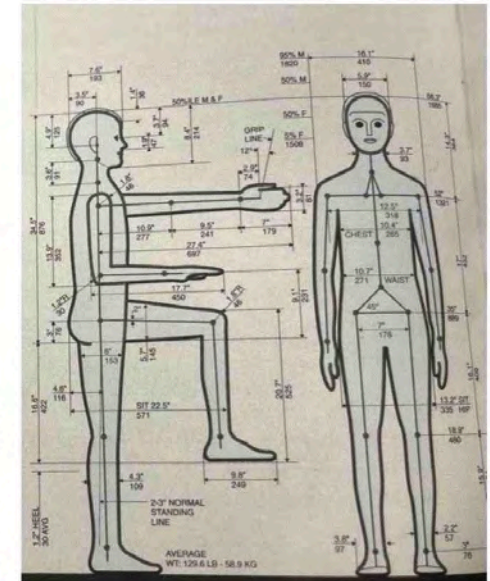
Ergonomics

I used the ergonomic human figure drawings for 15 and 16 year olds to decide the seat height, depth, and width. The seat height allows feet to rest flat on the ground, and the depth supports the back without being too deep. This ensures students can sit for longer periods comfortably.

15 years



16 years



The seat design can comfortably fit up to three students at once. If larger space is needed, it can fit two people comfortably without feeling cramped. This makes it suitable for both individual and group seating during chapel services and school events.

Final Design



Excellence

Subject: Design and Visual Communication

Standard: 92002

Total score: 07

Marker commentary

This response uses SketchUp effectively to communicate design ideas and details. The design work is clearly presented and all pages submitted are relevant to the standard.

Multiple design ideas that are suitable for the context of seating for students on a school site have been explored and the idea to be developed further is clearly identified.

There is a clear sequence of progression where the aesthetic features of the design have been changed. Decisions made connect to the use and the context. This enabled the work to meet the criteria for Merit.

On the following pages, the design is improved for the user and the context. This has been done by adding features that enhance the functionality and use of the design – for example, adding bag storage under the seat. This progression advances the quality of the design's aesthetics and functionality, allowing the response to meet the criteria for Excellence.

People are consistently shown interacting with and using the seat, showing a good connection to the user experience. This has helped show clear decisions that consider the user.

The use of SketchUp allows the response to clearly communicate features and details, showing the design from a range of viewpoints and using a range of technical drawing techniques.