Production Project

How do you solve a problem like The Sound of Music?

AI Statement

I confirm that I have not used any AI tools in the research and creation of this assignment. I confirm that I have not presented any AI generated materials as my own work. I confirm I have copies of my drafts, notes, and other resources I used, which I may be asked to provide in evidence.

Module Brief:

Task 1 - You will compile a process workbook – a record of all the areas covered in your lectures along with ideas on how this newfound knowledge contributes to your methodology. Your process workbook will outline your journey through the module and reflect on your learning and skills gained. You will be assessed on researching and testing, developing ideas, progress pictures and explanation of set/prop/scenic art/technical development, problem solving and technical drawings, white card/finished models/maquettes, and a completed working set/props/costume/technical elements etc.

Task 2 – Produce production elements for The Sound of Music for the Company – Carmarthen Youth Opera. Elements that client would like us to problem solve: The gazebo that is able to come apart as well as dancers be able to perform on the benches, a stone wall bridge that can be deconstructed to be stowed in the wings, birch trees to be carried on and held by children, and banners.

Task 3 - At the end of the module, as a group, you are to give a presentation. The presentation will inform the audience about how you have solved the practical problems demanded by the brief, focusing on production technique, methods and problem solving.

Learning Outcomes:

1. Deploy active and sustained contribution to the creative development and practical realisation of a project within a production team.
2. Apply design, production and technical methodologies as appropriate to identify and solve project problems/roles.
3. Critically analyse the quality of the collective endeavour and individual contributions to it.

Task 4 - Reflect upon what you've learnt throughout the module and commit those thoughts and reflections to a five-hundred-word evaluation.

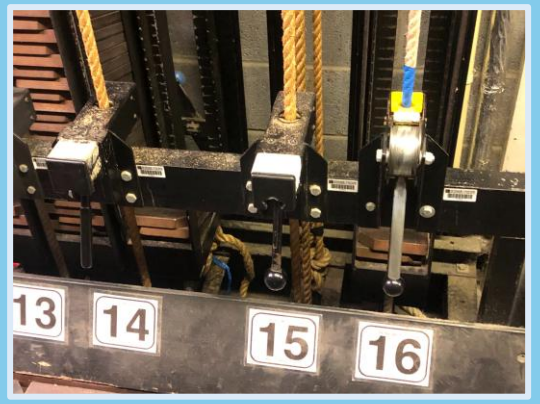
Visiting the Space: The Lyric Theatre

We visited the space which we would be creating the set pieces for, which is the Lyric Theatre in Carmarthen. We looked at the space of the wings and the backstage storage so that we could keep these in mind when designing how our pieces would come apart. The stage is raked slightly and quite high, changing the sight lines of the audience, although the setting line is not right at the edge, which helps with the sight lines.

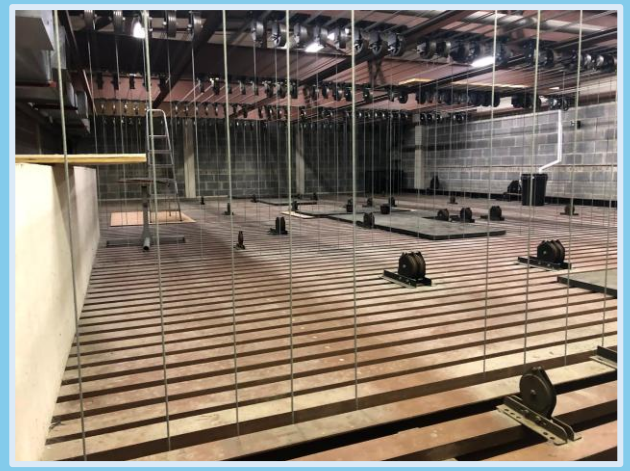
The get-in entrance is upstage left, the wing space is small, this will need problem solving later on.

Cast number is in the 60s with lots of young people, meaning careful consideration is needed of where you position things and the safety of them. The workshop is off stage right, the rehearsal room is upstairs, and the costume room is downstairs.

We also got the chance to view the fly floor, grid, and loading dock. The fly floor has a hemp side and a counterweight system. The bars are counterweighted with stage weights that need to equal the bar's weight, it is better for it to be lighter on the bar so that if the brake fails the bar flies up rather than crashes down. The grid is a floor made of bars, meaning your pockets should always be empty before going onto it in case anything was to fall through the gaps.











The fly floor: each bar is numbered and tape is used as a signal for the flymen to stop.

The Sound of Music Film

I love the film and have watched it quite a lot growing up so it's very nostalgic for me, I even went on a Sound of Music tour in Salzburg earlier this year!

The story is gripping and despite how much happens it doesn't feel rushed or painfully long. I think it's an interesting story because of how classic 'musical' it is for most of it, with singing and dancing and a happy ending of marriage, and then the sudden contrast of the Nazi Party coming for the Captain. It reminds me of the film Life is Beautiful (1997, directed by Roberto Benigni), where the first half is a romance and the second is a war film of survival. I like when movies based in this time period are structured like this, because I think it's more realistic to how many people's lives were. They were living a normal life, with an awareness of the Nazi Party gaining more power and the growing conflict between the general public, and then the suddenness of their normal life ending as they're thrown into a world controlled by Hitler and the days leading up to WW2.



← *The Sound of Music (Year Unknown)*

Twerpning (1965) →



I love the interior of the house, specifically the ballroom/puppet room, the gold ornate picture frames and mirrors make it so grand and the room feels like an outlier to the rest of the house, suggesting a history to the family from when the mother was alive that heavily contrasts their current situation.

I love musicals anyway, but I think if you took the songs out of this film then the movie would be less interesting, I feel like the songs carry the characters quite a lot, especially the children. I think the humour is great and subtle. I think the colouring of the film is incredible and I wonder if it's technicolour, I love the way the greens pop and all the colours they use in the costumes, such as the red of the Baroness and the yellow of Maria's post-honeymoon outfit.

Sound of Music: Context

The sound of music play book was written by Howard Lindsay and Russell Crouse, with music by Richard Rogers and lyrics by Oscar Hammerstein.
The story is based on the 1949 book 'The Story of the Trapp Family Singers', written by Maria von Trapp, the governess in the play.
The story is set in 1938, in Austria, specifically Salzburg, right before the Anschluss.
It first opened in 1959 in New York at the Lunt-Fontanne Theatre, directed by Vincent J. Donehue, set design by Oliver Smith, costumes by Lucinda Ballard, and lighting by Jean Rosenthal.



Both image and information from Wikipedia (2026)

Original Book and Real-Life Story:

Maria von Trapp published the book 'The Story of the Trapp Family Singers' in 1949, although there were many changes to the story when it was made into a play and then a movie.



Gearin (2005)

Some of these changes:

Maria came to the Trapp family as a tutor to one of the children in 1926, not a governess, and married the Captain in 1927 (11 years before they left Austria). According to her autobiography, Maria did not love Georg but loved the children and when asked to marry him she agreed only after being advised by the nuns to do God's will.

Georg was actually a gentle and warm parent who loved the musical activities with the children, his family disliked his portrayal in the play.

Maria was actually not as sweet as suggested, the children confirming in interviews that she had a terrible temper and angry outbursts of screaming and throwing things.

They told everyone they were moving to America to sing. They left by train not over the mountains and actually travelled to Italy. When leaving they had a contract with an American booking agent.

There was no Max, but instead a priest called Reverend Franz Wasner, who acted as their musical director.

Georg's previous wife, Agatha Whitehead, died of scarlet fever in 1922, whilst living in Pola (now Pula, Croatia).

Maria really did join Nonnberg Abbey in Salzburg as a novice (postulant) and she struggled with discipline and rules, although claims they helped her straighten out her character and self-will. Maria struggled with her health at the abbey, and so was sent to be a tutor to the children for 10 months.

Not only did the real Georg refuse to fly a Nazi flag and turned down a position in their Navy, but he also declined a request for him to sing at Hitler's birthday party.

The von Trapp family stopped touring in 1955, Georg died in 1947, Maria went on to do missionary work in 1956 and then ran the Trapp Family Lodge for many years, she died in 1987.

The family had little input on the play or the movie, but several of the children and Maria have written books about their life.

Gearin (2005)

Table Read and Initial Thoughts:

I had very similar feelings to the film adaptation, except with the added consideration of how all of these locations could be done within the set.

Putting it into the context of a play, I spent a lot of the table read trying to consider how the von Trapp family house would be done on stage, as there's so many extravagant parts to the house, and quick changes between the villa and the abbey. I'm excited to look into that as a challenge for space and storage, especially at a venue like The Lyric.

It was really interesting to see the difference between the movie and the play, having only ever seen the movie adaptation of the story, I was surprised at how little changes had been made between the two in terms of logistics and how much happens. I was expecting them to have cut a lot more, rather than the small changes in dynamics, for example between Elsa and Maria.

I liked reading it as a class, it definitely makes reading a musical easier as the majority of the script is singing. I found it quite an easy script to understand, this might be because I've watched the movie so many times, but it's quite straightforward and easy writing.

I felt like the humour of the film is lost or even non-existent in the play, which is a shame, as I always think it's good for musicals to almost make fun of themselves and be aware of the ridiculousness of the world they're in.

Plot Summary:

Maria is a postulant torn between her love of nature, mountains, and singing, and her devotion to God. Mother Abbess sends Maria away to be a governess to Captain von Trapp's 7 children until September, using this time to consider whether she actually wants to become a nun.

On Maria's arrival it becomes obvious that the Captain runs his house like his ship and the children like the navy, calling them by whistles and forcing them to march rather than play. The oldest of the children, Liesl, sneaks out at night often, in order to meet her love interest Rolf. She has her first kiss with him out in the gardens, and he promises to take care of her. Maria bonds with the children immediately and as the Captain spends a month away in Vienna, visiting Elsa, Maria and the children become closer and happier. The Captain returns to find his children singing and dancing through Salzburg, dressed in clothes cut from curtains. Furious at Maria, he fires her and she stands up for the children's feelings of abandonment. After discovering Maria has brought back life and music into his family and house, he asks her to stay. The Captain has brought back Elsa Schraeber, who he intends to marry, and the children's uncle Max, who after witnessing the children sing, demands they enter into the festival he is planning.

The Captain throws a party for Elsa, during which a clear conflict is seen between those who agree with Hitler and those who oppose him. Maria and the Captain dance together, to teach the children, but instead finding their feelings for each other growing. Maria flees immediately, without saying goodbye, frightened by her love for the Captain due to her religious obligations and promises.

The children become unhappy without her and the Captain announces his engagement to Elsa. Maria confides in Mother Abbess, who advises her to follow her heart, and that it is not a sin to love a man as well as God. Maria returns to the house to complete her governess duties. After her return and a disagreement on the Nazi Party, the Captain and Elsa call off their engagement. Soon after, the Captain and Maria confess their feelings for one another and get married.

Plot Summary Continued:

During their honeymoon, Max plans to enter the children into the festival, and after the Anschluss, pressure is rising towards the Captain and his stance towards the Nazi Party, demanding to know why he doesn't have a flag raised.
Maria and the Captain return from their honeymoon to receive a telegram that the Captain is being called upon to join the Nazi's navy in Germany and must leave immediately. Soon after deciding they will leave Austria in order to escape these orders, Herr Zeller and von Schreiber arrive to escort the Captain to Germany to ensure he doesn't attempt an escape. Maria and the Captain claim they can't leave yet as they are entered into the festival, with the whole family singing onstage. Max confirms this and von Schreiber decides to delay the Captain's departure until after the festival.
The von Trapp family perform on stage, with Max announcing it will be their last performance and that the Captain has been called away. Whilst announcing the winners, the von Trapp family escape in the commotion, running away to the Abbey.
The nuns hide the family outside, whilst the Nazis search, revealing they often search the Abbey.
Right when they nearly make it, Rolf discovers them and is revealed to have joined the SS. In seeing Liesl, lies to his commanding officer and claims that there is no one there.
They are able to escape and leave over the mountains as the borders have been closed.

2nd and 3rd Read Through and Developing Thoughts:

I like the build up of the threat of the Nazis throughout, beginning with Rolf mentioning he knows more than he should, building with Herr Zeller mentioning the possible Anschluss, rising tensions between Max and the Captain in relation to politics, the end of the Captain's engagement to Elsa due to politics, and then culminating with the Anschluss and immediate threat of the Captain being called away to Berlin, ending in their escape and fear for their lives. I think it's really effective as it's intertwined with a love story so could have been difficult to achieve without appearing out of place.

On more read throughs, I feel like the pace of the play is quite strange. I feel like Act One should end on the Captain and Maria getting married so that the second act almost sections that drastic change in atmosphere. There are so many scenes to fit into a play adaptation that the more I read it the more overwhelming it seems!

I find it interesting to consider the transitions between the abbey and the villa, as there are quite a few, and how this could be done effectively and smoothly – especially as there are some scenes where we return to the abbey for a few seconds before going back to the villa. It would probably be considered to either cut these miniscule scenes at the abbey as they don't hold a lot of significance, or to create a combination of the abbey and the villa so that there is an invisible transition between the two, perhaps with scenery that can be turned around to represent a new location.

Scene Breakdown:

Act One

Scene 1 → Nonnberg Abbey, introduced to the abbey where the nuns are chanting as a bell is heard. The scene ends with the nuns asking where Maria is, established that she is unlike the other nuns.

Scene 2 → A mountainside near the abbey, we meet Maria who is lying under a tree and sits up to sing about the peace and music she feels within nature, her character is developed further as a joyful and loving person.

Scene 3 → Mother Abbess' office in the abbey, we hear the other nuns' opinions on Maria, many think she is a bad postulant. Maria enters to apologise to Mother Abbess, and they sing together and discuss Maria's future as a postulant. Mother Abbess discusses how she will send Maria away to be a governess to Captain von Trapp's children, in order to explore her true purpose in life. Suggesting Maria is not destined to be a nun.

Scene 4 → Maria leaves the abbey singing, passing Sister Margaretta who looks disapprovingly at her

Scene 5 → the von Trapp family's villa, we meet Captain von Trapp and his house staff, they discuss why the previous governess left and it is suggested the children play tricks on them. The Captain discusses how he will be gone for a month and return with guests. Maria arrives at the villa and meets the Captain, who criticises her clothes and introduces her to the children and their whistle signals. Maria refuses to whistle for anyone. Once left alone with the children, she begins to teach them how to sing and make up songs. The children's strict upbringing is established.

Scene 6 → later that night, outside the villa, we meet Rolf, a telegram delivery boy, we find out he and Liesl like each other and meet late at night to avoid her father catching them, she has her first kiss with him.

Scene 7 → up in Maria's bedroom, we learn the von Trapp villa used to be filled with music when his wife was alive and that he may remarry before the end of summer. Liesl sneaks into Maria's room through the window and Maria helps her clean her dress. One by one the children run to Maria's room in fear of the thunderstorm. She helps calm the children by singing to them. Maria's relationship with the children is developed and their bond is strengthened.

Scene Breakdown Continued:

Act One

Scene 8 → the children continue singing down the hallway back to their beds, comforted after Maria's reassurance
Scene 9 → 6 weeks later on the terrace of the villa, the Captain has returned from Vienna. He has brought Elsa Schraeder (his possible future wife) and the children's uncle Max, who we discover is organising a music festival. Elsa asks the Captain to throw a dinner party for her. Max and Elsa sing together about convincing the Captain to marry her. Rolf arrives looking for Liesl, he is scolded by the Captain after saluting Hitler, 'I am an Austrian - I will not be heiled!' *the Captain, page 53.*
The children and Maria enter, leap frogging over each other whilst singing. They wear clothes made from the curtains in Maria's room seen earlier. Maria and the Captain argue over his neglect of the children, Maria establishes the ain each child feels because of this and he fires her. After hearing his children singing, he apologises to Maria and asks her to stay. He throws away the whistle in a symbolic act of change.
Scene 10 → 1 week later, the children practise bowing and greeting guests in the hallway, discussing the parties their parents used to host, excited that the house would be full of life again.
Scene 11 → the guests have arrived and are dancing a waltz. We are introduced to Herr Zeller and Baron Elberfeld, who argue over the concept of German vs. Austrian blood, Zeller threatens there will be an Anschluss. Elsa is faking a headache to avoid the conflict between the two political parties. Meanwhile, Maria and Kurt attempt to dance together but the Captain takes over. Maria and the Captain share a romantic moment whilst dancing and the Captain wants to invite Maria to join them at dinner. Elsa and Max disagree as she is staff. Brigitta tells Maria that the Captain is in love with her and that she loves him too. The children sing a song to the guests to say goodbye and Max demands they perform in his festival. The scene ends with Maria leaving silently, panicked after Brigitta's revelation.
Scene 12 → back in the abbey, a new postulant arrives.

Scene Breakdown Continued:

Act One

Scene 13 → Mother Abbess is worried and discusses Maria with the other nuns, Maria requests to speak with her. Maria reveals why she left the villa and her love for the Captain, and fear as a result of this. Mother Abbess assures Maria that it is not a sin and that she can love both a man and God and that her purpose may lie elsewhere. Mother Abbess demands she returns to the villa as the abbey is not somewhere to hide from your problems and that Maria has a duty to fulfil.

Act Two

Scene 1 → back at the von Trapp villa, Max is attempting to get the children to sing but they're too sad as Maria has gone. The Captain takes over and Maria returns, joining them in song. She greets the children and claims to only be back until they can find a new governess. Max and the Captain disagree on the state of the Nazis and the possible invasion of Austria. Elsa and the Captain call off their engagement due to their conflicting political beliefs. Maria congratulates them on their engagement and learns they have called it off. Maria and the Captain discuss why she left and their feelings for each other, deciding to get married.

Scene 2 → in the abbey, the nuns prepare Mother Abbess' ceremonial robes

Scene 3 → Maria prepares and dresses for her wedding in Mother Abbess' office, scolded for her vanity

Scene 4 → Maria gets married to the Captain with the children part of the wedding procession, in the chapel that Maria was a postulant at

Scene Breakdown Continued:

Act Two

Scene 5 → 1 month later at the von Trapp villa, Max is preparing the children for the festival whilst the Captain and Maria are on their honeymoon. Herr Zeller arrives at the house and demands to know why there is no Nazi flag at the house, the Anschluss has taken place four days prior. Zeller demands to know when the Captain will return. Herr Zeller leaves and, soon after, the Captain and Maria return from their honeymoon. Liesl and Maria discuss her tumultuous love life. Rolf arrives with a telegram and ignores Liesl and is rude to Maria, Rolf is revealed to have joined the Nazi Party. The Captain's telegram has called him to Berlin to serve in their Navy. Maria and the Captain decide they need to leave Austria before it's too late, in order to escape the Nazi Party. Admiral von Schreiber arrives at the house with Herr Zeller in order to escort the Captain to Berlin immediately. Maria enters claiming that they can't leave yet as they are all performing in Max's festival, Max supports this lie and von Schreiber allows them to stay for the festival, much to Herr Zeller's disapproval.

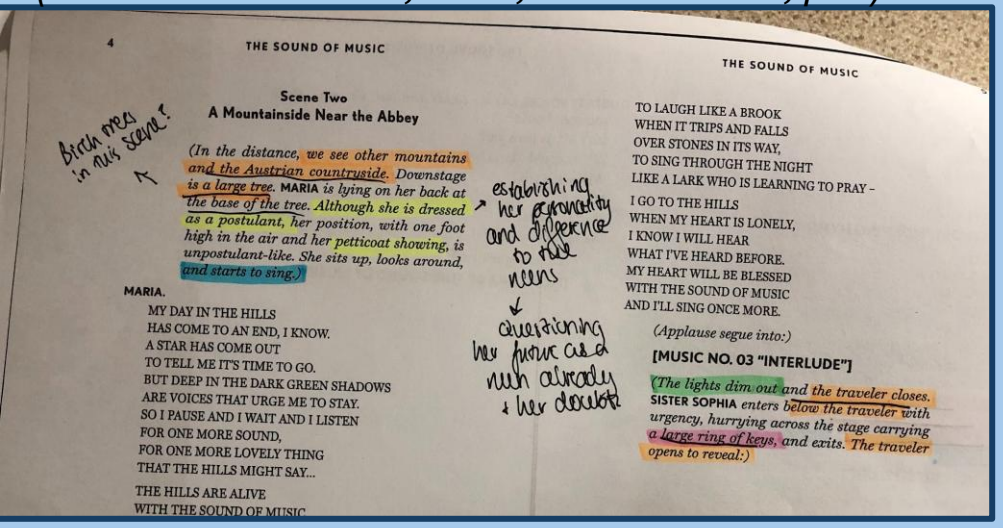
Scene 6 → 2 days later at the concert hall, the von Trapp family perform their songs onstage, they give an encore performance whilst the judges make their decision, with Max announcing it will be their last performance. During the announcement of the winners, the von Trapp family make their escape and the Nazis chase after them.

Scene 7 → the von Trapp family take safety in the abbey, the nuns hide them in the garden, and it is revealed the Nazis often search the abbey. Rolf enters the garden and finds them, he calls his Lieutenant to say there is no one outside and saves them, he has now joined the SS. The Nazis leave and the borders have been closed, they decide they must travel on foot over the mountains in order to escape through Switzerland. Mother Abbess and the nuns sing for them and their journey.

The End.

Script Analysis: Annotated Script

(The Sound of Music, 1959, Act 1 Scene 2, p. 4)



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Scene Two
A Mountainside Near the Abbey

(In the distance, we see other mountains and the Austrian countryside. Downstage is a large tree. **MARIA** *is lying on her back at the base of the tree. Although she is dressed as a postulant, her position, with one foot high in the air and her petticoat showing, is unpostulant-like. She sits up, looks around, and starts to sing.)*

MARIA.

MY DAY IN THE HILLS
HAS COME TO AN END, I KNOW.
A STAR HAS COME OUT
TO TELL ME IT'S TIME TO GO.
BUT DEEP IN THE DARK GREEN SHADOWS
ARE VOICES THAT URGE ME TO STAY.
SO I PAUSE AND I WAIT AND I LISTEN
FOR ONE MORE SOUND,
FOR ONE MORE LOVELY THING
THAT THE HILLS MIGHT SAY...

THE HILLS ARE ALIVE
WITH THE SOUND OF MUSIC

THE SOUND OF MUSIC

TO LAUGH LIKE A BROOK
WHEN IT TRIPS AND FALLS
OVER STONES IN ITS WAY,
TO SING THROUGH THE NIGHT
LIKE A LARK WHO IS LEARNING TO PRAY –

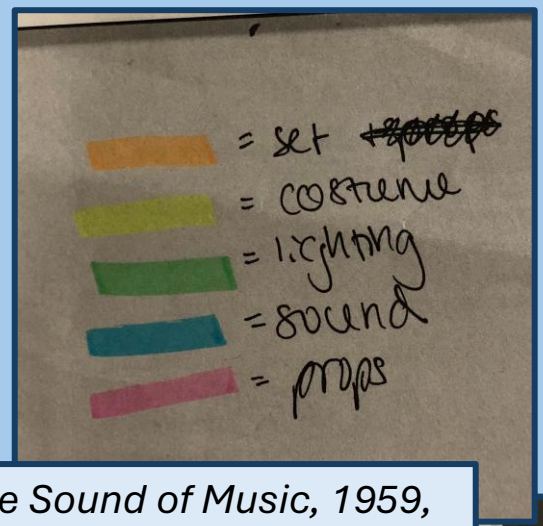
I GO TO THE HILLS
WHEN MY HEART IS LONELY,
I KNOW I WILL HEAR
WHAT I'VE HEARD BEFORE.
MY HEART WILL BE BLESSED
WITH THE SOUND OF MUSIC
AND I'LL SING ONCE MORE.

(Applause segue into:)

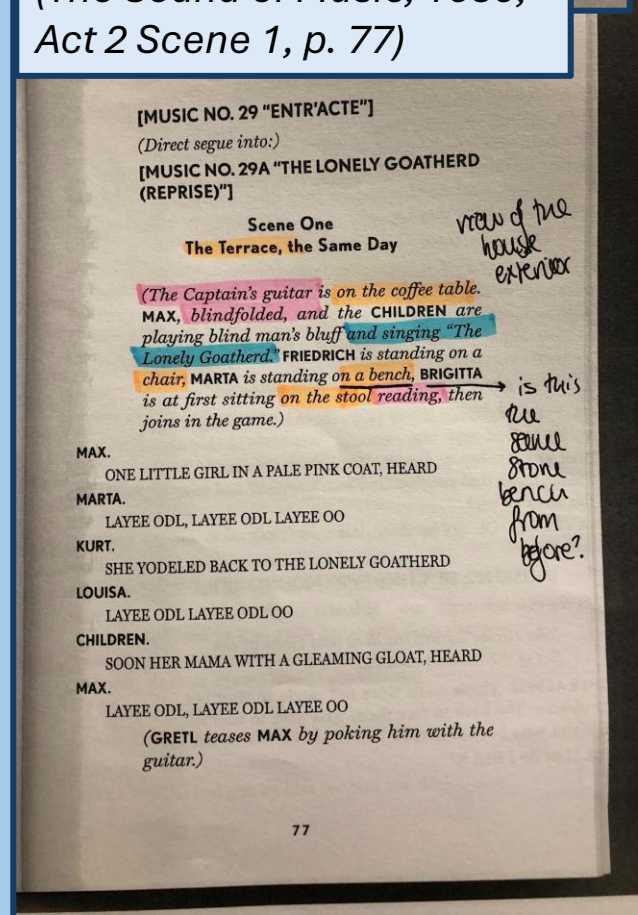
[MUSIC NO. 03 "INTERLUDE"]

(The lights dim out and the traveler closes. **SISTER SOPHIA** *enters below the traveler with urgency, hurrying across the stage carrying a large ring of keys, and exits. The traveler opens to reveal:)*

I've included images of my annotated script, focussing on the key scenes that our set pieces will be featured in. Highlighting is colour coordinated with production elements and my personal thoughts on the dialogue and story developing, as well as design considerations I was making note of.



(The Sound of Music, 1959, Act 2 Scene 1, p. 77)



[MUSIC NO. 29 "ENTR'ACTE"]

(Direct segue into:)

[MUSIC NO. 29A "THE LONELY GOATHERD (REPRISE)"]

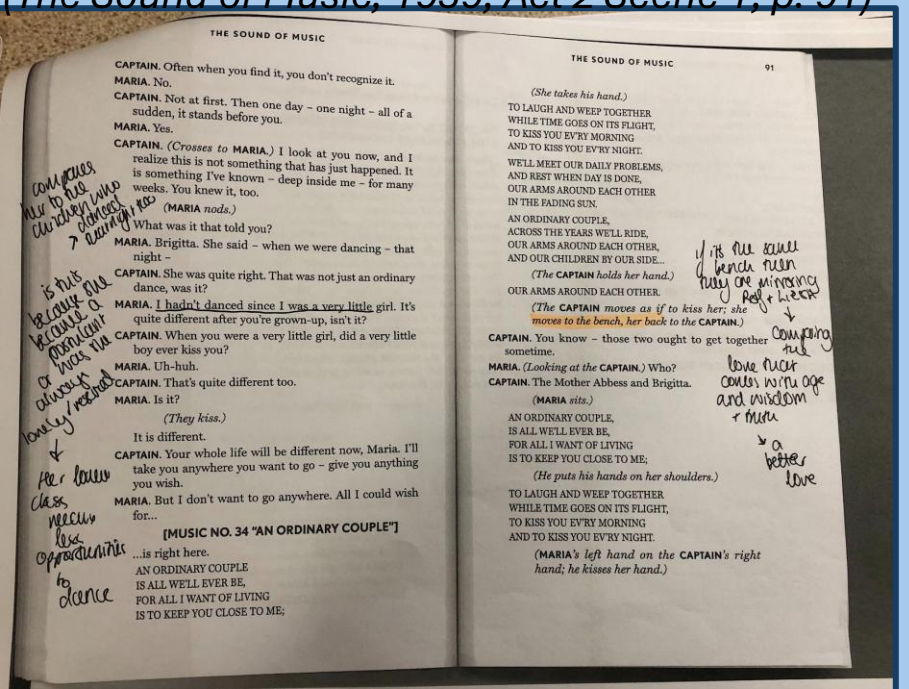
Scene One
The Terrace, the Same Day

(The Captain's guitar is on the coffee table. **MAX,** *blindfolded, and the* **CHILDREN** *are playing blind man's bluff and singing "The Lonely Goatherd."* **FRIEDRICH** *is standing on a chair,* **MARTA** *is standing on a bench,* **BRIGITTA** *is at first sitting on the stool reading, then joins in the game.)*

MAX.
ONE LITTLE GIRL IN A PALE PINK COAT, HEARD
MARTA.
LAYEE ODL, LAYEE ODL LAYEE OO
KURT.
SHE YODELED BACK TO THE LONELY GOATHERD
LOUISA.
LAYEE ODL LAYEE ODL OO
CHILDREN.
SOON HER MAMA WITH A GLEAMING GLOAT, HEARD
MAX.
LAYEE ODL, LAYEE ODL LAYEE OO
*(***GRETL** *teases* **MAX** *by poking him with the guitar.)*

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(The Sound of Music, 1959, Act 2 Scene 1, p. 91)



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CAPTAIN. Often when you find it, you don't recognize it.
MARIA. No.
CAPTAIN. Not at first. Then one day – one night – all of a sudden, it stands before you.
MARIA. Yes.
CAPTAIN. *(Crosses to* **MARIA.***)* I look at you now, and I realize this is not something that has just happened. It is something I've known – deep inside me – for many weeks. You knew it, too.
(MARIA *nods.)*
What was it that told you?
MARIA. Brigitta. She said – when we were dancing – that night –
CAPTAIN. She was quite right. That was not just an ordinary dance, was it?
MARIA. I hadn't danced since I was a very little girl. It's quite different after you're grown-up, isn't it?
CAPTAIN. When you were a very little girl, did a very little boy ever kiss you?
MARIA. Uh-huh.
CAPTAIN. That's quite different too.
MARIA. Is it?
(They kiss.)
It is different.
CAPTAIN. Your whole life will be different now, Maria. I'll take you anywhere you want to go – give you anything you wish.
MARIA. But I don't want to go anywhere. All I could wish for...

[MUSIC NO. 34 "AN ORDINARY COUPLE"]

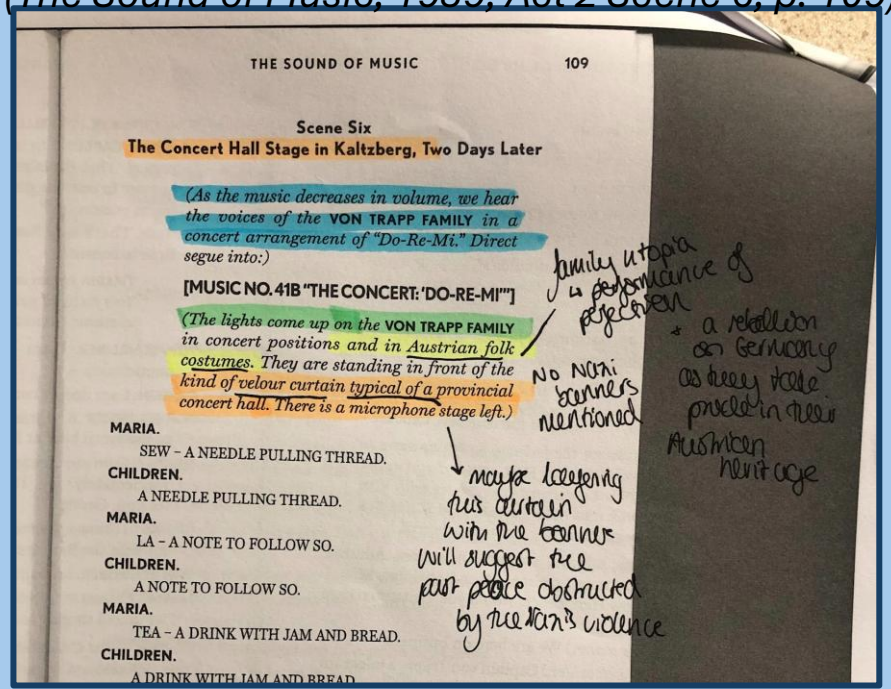
...is right here.
AN ORDINARY COUPLE
IS ALL WE'LL EVER BE,
FOR ALL I WANT OF LIVING
IS TO KEEP YOU CLOSE TO ME;

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(She takes his hand.)

TO LAUGH AND WEEP TOGETHER
WHILE TIME GOES ON ITS FLIGHT,
TO KISS YOU EV'RY MORNING
AND TO KISS YOU EV'RY NIGHT.
WE'LL MEET OUR DAILY PROBLEMS,
AND REST WHEN DAY IS DONE,
OUR ARMS AROUND EACH OTHER
IN THE FADING SUN.
AN ORDINARY COUPLE,
ACROSS THE YEARS WE'LL RIDE,
OUR ARMS AROUND EACH OTHER,
AND OUR CHILDREN BY OUR SIDE...
(The **CAPTAIN** *holds her hand.)*
OUR ARMS AROUND EACH OTHER.
(The **CAPTAIN** *moves as if to kiss her; she moves to the bench, her back to the* **CAPTAIN.***)*
CAPTAIN. You know – those two ought to get together sometime.
MARIA. *(Looking at the* **CAPTAIN.***)* Who?
CAPTAIN. The Mother Abbess and Brigitta.
*(***MARIA** *sits.)*
AN ORDINARY COUPLE,
IS ALL WE'LL EVER BE,
FOR ALL I WANT OF LIVING
IS TO KEEP YOU CLOSE TO ME;
(He puts his hands on her shoulders.)
TO LAUGH AND WEEP TOGETHER
WHILE TIME GOES ON ITS FLIGHT,
TO KISS YOU EV'RY MORNING
AND TO KISS YOU EV'RY NIGHT.
*(***MARIA***'s left hand on the* **CAPTAIN***'s right hand; he kisses her hand.)*

(The Sound of Music, 1959, Act 2 Scene 6, p. 109)



THE SOUND OF MUSIC 109

Scene Six
The Concert Hall Stage in Kaltzberg, Two Days Later

(As the music decreases in volume, we hear the voices of the **VON TRAPP FAMILY** *in a concert arrangement of "Do-Re-Mi." Direct segue into:)*

[MUSIC NO. 41B "THE CONCERT: 'DO-RE-MI'"]

(The lights come up on the **VON TRAPP FAMILY** *in concert positions and in Austrian folk costumes. They are standing in front of the kind of velour curtain typical of a provincial concert hall. There is a microphone stage left.)*

MARIA.
SEW – A NEEDLE PULLING THREAD.
CHILDREN.
A NEEDLE PULLING THREAD.
MARIA.
LA – A NOTE TO FOLLOW SO.
CHILDREN.
A NOTE TO FOLLOW SO.
MARIA.
TEA – A DRINK WITH JAM AND BREAD.
CHILDREN.
A DRINK WITH JAM AND BREAD

Character List: Name Meanings and Real People

Maria Rainer (protagonist) → the real Maria's maiden name was *Kutschera* not *Rainer* *(Biography.com Editors, 2020)*, *Maria* refers to the Mother Mary in Christianity, also meaning 'star of the sea' and 'wished for a child' *(Abner, 2024, a)* which connects to her religious pursuits and her strong relationship with the children. *Rainer* developed from an old Germanic name meaning counsel and army *(House of Names, Year Unknown)*, connecting to both the Captain's navy roots and her nurturing style.

Sister Berthe (nun) → developed from *Berchta*, who was guardian of beasts and a deity of honouring traditions *(The Bump, Year Unknown)*, she is a stickler for the rules.

Sister Margaretta (nun) → German roots, meaning pearl, associations with the Goddess of Fertility and Wisdom (Isis), she is wise and pure in her beliefs. *(Ancestry, Year Unknown, a)*

Sister Sophia (nun) → Greek origins, meaning wisdom, knowledge, insight, and intelligence. *(Ancestry, Year Unknown, b)*

Mother Abbess (head nun) → *Abbess* meaning a woman holding a position of spiritual authority and leadership, a title more than a name, developing from *Abba* (father in Aramaic) *(Wisdomlib, 2025, a)*

Captain Georg von Trapp (male lead) → *Georg* means farmer and Earth worker, whilst *Saint George* was known as a dragon slayer *(Ancestry, Year Unknown, c)*, showing bravery and virtue, linking to the Captain's heroic naval history. With the farmer roots being ironic as he's too rich to work the land, maybe he started out from a farming background or maybe suggesting he is down to Earth (non pun intended). *Captain* holds connotations of authority and leadership, whilst *von Trapp* means they are from an area of Germany/Austria *(Wisdomlib, 2025, b)*. His name was not changed from real life, possibly due to his fame as a hero.

Herr Zeller (Nazi/antagonist) → *Zeller* means cell/monastic cell (a monk's cell) *(Wisdomlib, 2025, c)*, ironic to connect his character to a religious dwelling. The actual Gauleiter of Salzburg at the time was *Friedrich Rainer* (Williams, 2009), the same last name they gave Maria (was this an accident? Strange to associate her with a Nazi as it goes against her morals and behaviours)

Frau Zeller → Herr Zeller's wife, seen as the dinner party

Franz → the butler, revealed to support the Nazi party

Frau Schmidt → the housekeeper, misses how life used to be in the house before the Captain's wife died.

Character List: Name Meanings and Real People

The Real Children:
Rupert (1911- 27), Agathe (1913- 25), Maria (1914- 24), Werner (1915- 23), Hedwig (1917- 21), Johanna (1919- 19), Martina (1921- 17) *(Panorama Tours, Year Unknown)*→ *They had three more children once married. The youngest child at the time of the Anschluss would have been 17!*

Liesl (16) → name meaning 'my God is an oath' and 'my God is abundance', deep roots of faith and purity (denial of her womanhood) *(Abner, 2024, b)*

Friedrich (14) → meaning 'peaceful ruler', resonating with his father's position *(Lawler, 2024, a)*

Louisa (13) → 'famous warrior', also resonating with her father's position *(McNamara, 2024)*

Kurt (10) → courteous and polite, Kurt is sweet and polite *(Abner, 2024, c)*

Brigitta (9) → power, protection, and virtue *(The Bump, 2023)*

Marta (7) → meaning 'lady', connections to Mars, the Roman God of War *(Lawler, 2024, a)*

Gretl (no age stated, is this due to the connection with their mother's death?) → pearl and adorability *(Joly, 2018)*

Most of the children's names have connotations of war, battle, strength, and virtue. Implying their upbringing with their navy father has built their moral integrity, loyalty, and courage.

Rolf Gruber (Liesl's love interest) → *Rolf* means 'fame and glory for the wolf' *(The Bump, 2024)*, he is a wolf in sheep's clothing and has a dark side, he glorifies the Nazi party without understanding its meaning, he wants fame and power no matter what. *Gruber* developed from 'Grube' meaning 'hollow' *(Wisdomlib, 2025, d)*, his feelings for Liesl are hollow and shallow, no meaning in his words.

Elsa Schraeder (Captain's love interest) → *Elsa* also means 'God is an oath' *(Bagg, 2024)*, implying purity. *Schraeder* means tailor *(Wisdomlib, 2025, e)*, connects to her description as stylish and cosmopolitan

Max Detweiler → minister of culture

Admiral von Schreiber → Admiral in Nazi Party

Baron and Baroness Elberfeld → live nearby

Ursula → the maid, is not seen much

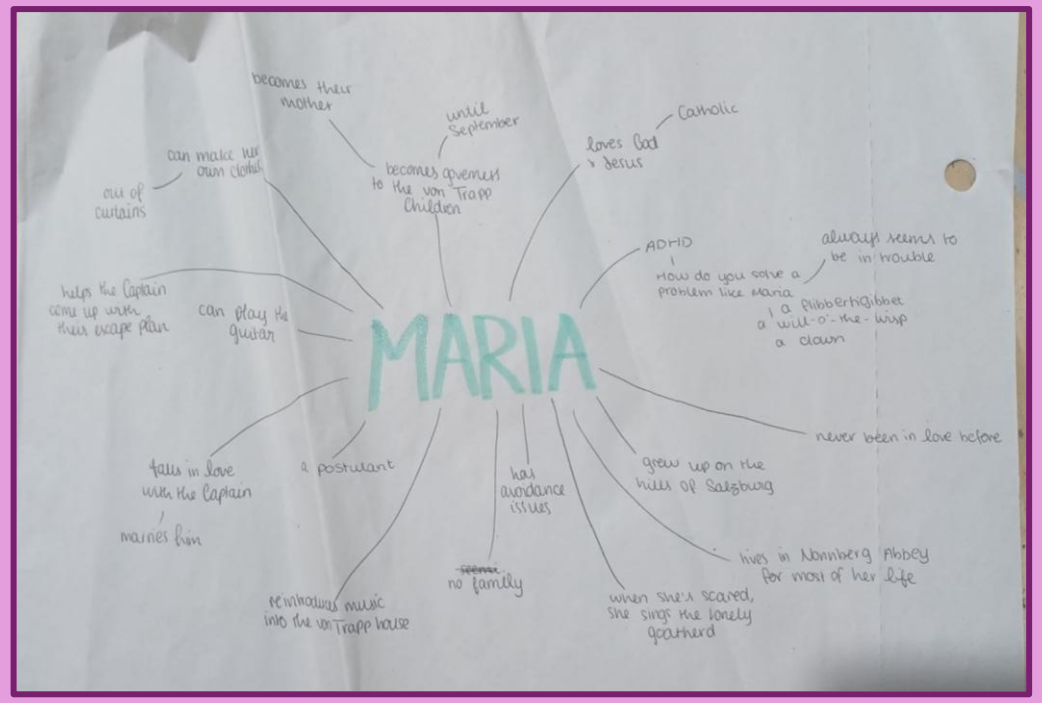
Other Extras: Party Attendants, Nuns, Concert Contestants,

Character Analysis: Maria

→ Problematic and not a good nun
→ A postulant 'training' to be a nun
→ Grew up in Salzburg on the mountains
→ Can play the guitar and sing (has to ask permission to sing)
→ Can make her own clothes
→ No family
→ Uncertain whether she wants to be a nun (in denial about it)
→ Doesn't want to leave the abbey to be a governess
→ Good with children
→ Stands up to the Captain, showing confidence and moral integrity, she is brave
→ Described by the nuns as 'a clown' and a 'Willa the whisp' (little spirits)
→ Extremely and truly religious (whether or not she wants to be a nun)
→ In love with the Captain and unaware (or in denial)
→ Supportive of the Captain marrying Elsa and happy for the children to have a mother figure again (wants the best for everyone despite her own feelings)
→ She's never been in love before, although she has kissed a boy when she was younger
→ She marries the Captain in Act 2. The children are happy that she's their new 'mum'
→ Always late, except to every meal
→ Doesn't want to change the Captain and supports his rejection of the Nazi Party, something Elsa couldn't do (her moral integrity again)

→ Makes clothes for the children out of curtains (doesn't care about appearances, reputations, or status)
→ Reintroduces music to the von Trapp family since their mother's death, she is the spark that brings them back to each other
→ Comforts and guides Liesl in her first romantic relationship
→ Helps the Captain plan the family's escape from the Nazi Party, lying and acting to Herr Zeller and von Schreiber, puts morals and family before her self-preservation (risks the Nazis persecution)
→ Runs away from the family without saying goodbye after realising her feelings for the Captain → determined to do the right thing (doesn't want to destroy Elsa and the Captain's relationship) and truly believes her only love can be God, pure intentions in all her actions

Mind map created as a class and drawn by Annie Picton.



Character Research: Maria

The different 'types' of nuns *(Scalia, 2016)**:***
Nuns → live within an abbey or monastery as a contemplative religious person
Sisters → considered active, assisting the church through other means (care, work, teaching)
Aspirant → someone living within the community to see if she wants that life
Postulant → formally moved into the community whilst remaining in the aspirant stage for a time
Novice →a formally received postulant (lasting for two years) of intense study and prayer

Nuns Involvement in Education and Childcare:
There was a significant growth in nuns in the 19th century, becoming involved in newer areas of education (previously only being involved in nursing and social work). Nuns established themselves as strong women who could negotiate with masculine authorities.
Between 1900-1930s they became involved also in Unionism → helping to train women for new occupations (typists, accounting, etc.).
(Brejon De Lavergnée, 2020)



(Brejon De Lavergnée, 2020)



(Sing, 2025)

Character Research: Maria

Governesses in the early 20th Century:

Once a profession reserved for upper-class families, in the Victorian era they became used by middle class families too. Having a governess was a symbol of your social status.

Governesses usually had similar backgrounds to the families' children, being daughters of merchants, military, surgeons, solicitors, etc.

Many women had been raised for this profession, but many were also forced into this position. Being a governess was considered the most ladylike and respectable profession for a woman at the time. It was otherwise thought that women should marry and have children.

They were usually not trained, and the focus was put on their family and status in society rather than their skillset.

A governess was also involved in the children's moral development, studying the Bible with them and encouraging charity.

Some may get their own room, whilst others would have to share with the children. They were not supposed to talk with the parents as they were below them, but were not supposed to speak with the staff as they were slightly above them in status

(Day, Year Unknown)

Nuns Involvement in Teaching Children:

Nuns often opened schools, orphanages, and hospitals. As they had taken a vow of poverty they could teach children for very low wages *(Stringer, 2018)*. Although it was not usual for nuns to become a governess, Maria was probably chosen as she wasn't an official nun yet.

(Wikipedia, 2025) →

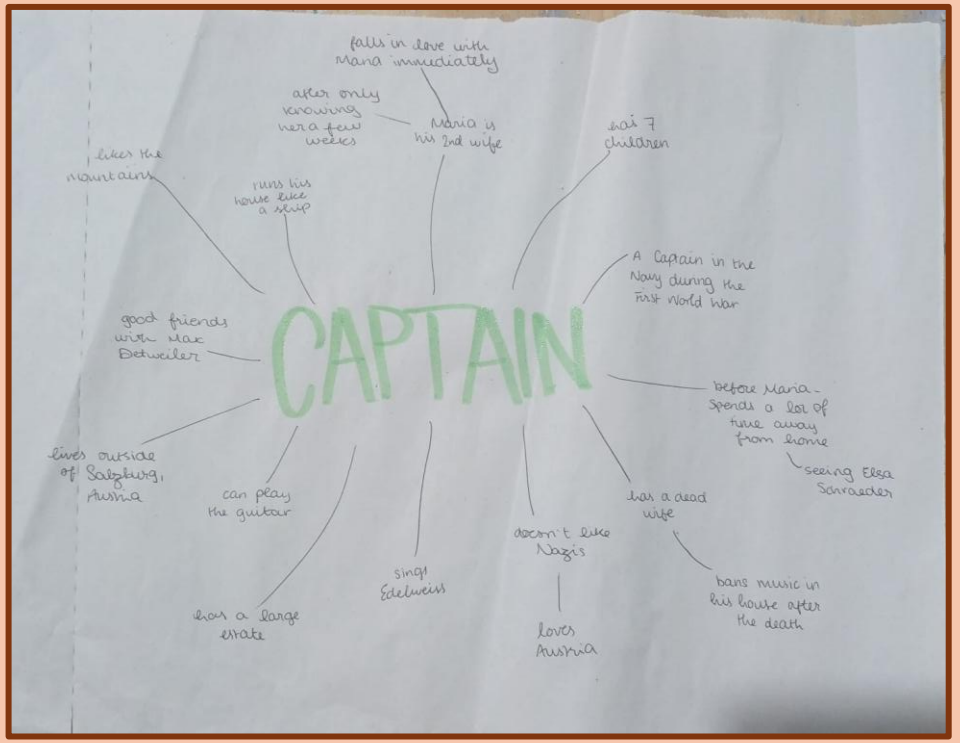


Character Analysis: Captain Georg von Trapp

→ Used to be a Captain in the Austrian Navy, fought in WW1
→ Proud to be Austrian, until the Anschluss
→ Considered a hero with many brave accomplishments and is highly sought after as a Captain
→ Doesn't let his children sing in public. He, contrastingly to Maria, cares a lot about appearances and status/reputation
→ After the wife's death, he runs the house like a navy ship, blowing whistles to call everyone and forcing the children to march rather than play, he is emotionally repressed
→ Widowed
→ Used to sing and play guitar when his wife was alive, grieving her death still
→ Spends a lot of time away from his house, suggested he's avoiding it (can't face the children after the loss of his wife) or even searching for a reason to miss it/want it
→ Spends a month in Vienna with Elsa
→ Gets engaged to Elsa and wants her to be their new mother so they won't have a governess anymore (marrying her due to her status?)
→ Ends the engagement due to different political views. Like Maria, he has strong moral integrity and won't compromise on certain things

→ Has 7 children, Maria is his second wife, Marries Maria in Act 2
→ Hates the Nazi Party and never wants to work for them, but is conflicted about putting his family at risk of harm
→ Performs in the concert, after being against it the whole play, in order to ensure his family's safe escape
→ Is ordered to work in the Nazi's navy and sent an escort to ensure he doesn't try to run away
→ Ordered to raise a Nazi flag at his home and refuses
→ Refuses to join them, but asks for Maria's advice and opinion before deciding, showing he values her opinion

Mind map created as a class and drawn by Annie Picton.
→



Character Research: Captain Georg von Trapp

The Austro-Hungarian Navy During World War One:

The Austro-Hungarian navy spent World War 1 as a fleet-in-being in the Adriatic Sea. Holding down Italian and French battle fleets and the Royal Navy. Their navy consisted of destroyers, submarines, and light cruisers.

In 1915, Italy declared war on Austria (Austro-Hungary), and so Germany sent U-boats that operated under the Austrian ensign and were temporarily part of the Austrian Navy. But once Germany was at war with Italy in 1916, they returned to their own ensign and navy.

The Austrian submarine fleet did not grow in numbers, but managed to sink many armoured cruisers, destroyers, and submarines of other countries. (*Naval History, 2011)*

A fleet in being means the Austro-Hungarian Navy did not actively engage in battle, it remained in port. Its goal was to intimidate any opposing forces and deny them action. *(US Legal, Year Unknown)*

(MadMonarchist, 2012)



Captain von Trapp:

Although not the highest rank, a Captain in the Navy is a senior position. They commanded warships and executed strategies. *(Wikipedia, 2025)*

Georg Ritter von Trapp: *(The Sound of Music, Year Unknown, b)*

Von Trapp was born in Croatia, which at the time was part of the Austrian-Hungarian Empire. His father was also a navy captain. He went to the Royal Navy Academy and in 1910 he met his first wife, Agathe Whitehead. The submarine U6 was assigned to him, and during WW1 the French submarine ‘Leon Gambetta’ was sunk by Trapp’s mission. In 1916 he was promoted to Lieutenant Commander.

Post-war Austria no longer had a coast and did not need a navy. Captain Trapp lost his post and later his wife in 1924. Three years later he married Maria. He rejected the position in Hitler’s navy by saying ‘I have sworn my oath of loyalty to only one Emperor’.

Character Research: Captain Georg von Trapp

The Anschluss:

The Anschluss was Nazi Germany's first act of territorial aggression and expansion *(Holocaust Encyclopedia, Year Unknown)*. Anschluss means Union.

(BBC Bitesize, Year Unknown)

→ Hitler wanted all German-speaking nations in Europe to be part of Germany. Wanting to reunite Germany with Austria, which was also where Hitler was from. He also wanted Sudetenland, part of Czechoslovakia, which Austria shared a border with.
→ The Austrian Chancellor Dollfuss banned the Nazi Party as he felt they were tearing the country apart.
→ In 1934, Hitler ordered Austrian Nazis to cause havoc in Austria, leading to an attempt to overthrow the government, Chancellor Dollfuss was murdered but the coup failed as the Austrian military intervened.
→ In 1934, Italy agreed to protect Austria, Mussolini moved troops to the border to deter Hitler.
→ The new chancellor Schuschnigg tried to co-operate with Hitler to avoid any aggression.
→ The German-Austrian agreement of 1936 recognised Austria's independence but meant their foreign policy had to be the same as Germany, allowing Nazis to hold official posts in Austria.
→ In the Spanish Civil War, Germany and Italy became allies in 1936, making Austria vulnerable.
→ Hitler demanded Austrian Nazis cause trouble so as to suggest Austrian law was broken.
→ In 1938 the Chancellor held a referendum where the people of Austria decided if they wanted to be part of Hitler's Germany, Hitler forced him to call off the referendum as it would prevent him from invading. The Chancellor then resigned.
→ On the 12th of March 1938, German troops marched into Austria and were unopposed, Germany now had control of Austria
→ Hitler then held a rigged referendum which showed that the Austrian people approved of the Anschluss.

Character Research: Captain Georg von Trapp

The Nazi Party:

The Nazi Party's official name was the National Socialist German Worker's Party.

They were a far-right racist and antisemitic political party, led by Adolf Hitler.

They came into power in 1933, controlling all aspects of German life and opening concentration camps where they starved, worked, tortured, and killed many Jews and anyone who opposed them. They lost power when they lost World War II.

The Nazi Party was founded after World War 1, using the uncertainty and feelings of hopelessness to steer German people's anger towards certain groups of people, pushing antisemitism and anti-Marxist ideology.

Hitler, the Fuhrer of Germany, believed in a 'master race' of 'pure German blood' and an 'Aryan race', he wanted to eradicate anyone who didn't fit this image.

They ruled as a dictatorship from 1933 to 1945. They used propaganda throughout their campaign for power, and after they achieved their power, they used it to paint Jewish people as Germany's enemy. They also made use of censorship to control all parts of people's lives.

(Holocaust Encyclopedia, 2025)



(Hampton Roads Naval Museum, Year Unknown)
←



(Facing History & Ourselves, 2024)
→

Character Research: Captain Georg von Trapp

Male Widows:

When asked, men suggested women were better at coping with widowhood due to their domestic and social skills, men felt unable to talk about their emotions and to complete the tasks previously done by their wives. Including raising their children, cooking, and cleaning

For the upper class this would have been easier as they had staff and help, so not much changed on this front. Specifically for Captain von Trapp, he would have been able to focus on his grief and emotions, as he didn't have to worry about raising his children and cooking/cleaning (he had staff and a governess for this). Despite the help he has, he is emotionally repressed and distant, he still struggles with the expectation that men don't express emotions. Maria helps him release this side of himself and develop a deeper relationship with his children.

(Bennett, Hughes, and Smith, 2003)



(Oprah, 2010)



(Wikipedia, 2025)

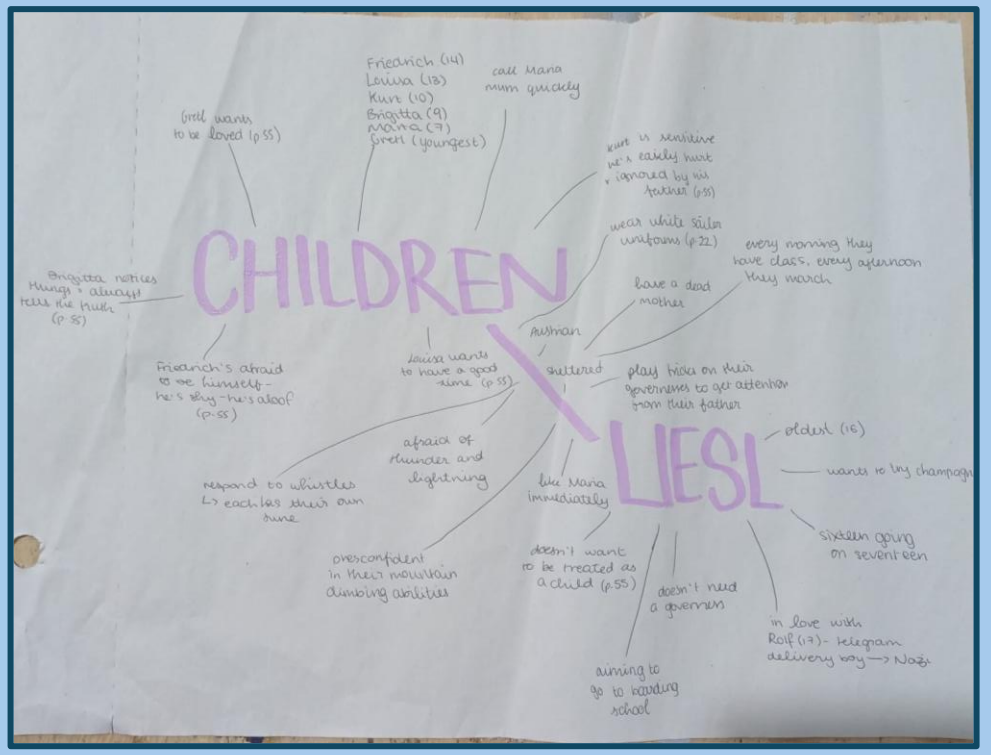
Many marriages were revealed to have been more of force than desire after one's death. Revealing those who had married for merely status and connections rather than love. Men were often encouraged to remarry quickly, so as to replace the role in the house and in their children's lives. Whilst women were more expected to grieve and honour their husband's previous role in their life by not replacing him. *(Dunn, 2009)*

Character Analysis: The Children (and Liesl):

→ 7 of them, 2 boys, 5 girls: Liesl is 16, Friedrich is 14, Louisa is 13, Kurt is 10, Brigitta is 9, Marta is 7, and Gretl's age is undisclosed. This could be because her age correlates to the mother's death (death in childbirth) and they don't want to be reminded.
→ Liesl claims she doesn't need a governess, but later changes her mind after Maria's advice and kindness, she is defensive and protective of her family, she doesn't trust adults easily
→ Liesl is in love(?) with Rolf and has her first kiss with him, Rolf claims that Liesl needs someone older and wiser telling her what to do, in the end that is Maria not him
→ All children are scared of the thunder and lightning and run to Maria for comfort despite not knowing her, they have no one else to run to
→ The children play tricks on their governesses, like putting a toad in their bed in order to gain attention from their father
→ Told they can sing and entered by Max into the festival
→ Made to march rather than play, until Maria arrives. They behave like an army, following the Captain's orders, they just want to please him and find a connection to him (respond to whistles like animals)

→ In the morning, they have lessons, and in the afternoon, they march, strict and army-like schedule
→ They all like Maria very quickly, she is honest with them and kind and provides them with the attention and consideration they've been lacking
→ They are sheltered (although Liesl less sheltered than the rest due to her age, she is present for some discussions on the Nazi Party situation and their request for the Captain to join them)

Mind map created as a class and drawn by Annie Picton.
→



Character Analysis: The Children (and Liesl):

→ ***Maria describes them to the Captain:***

Claims Liesl is not a child anymore and if he doesn't stop treating her like one, she will rebel ('mutiny').
Friedrich is afraid to be himself. He is shy and aloof and needs his father for confidence.
Brigitta notices things about people and always tells the truth, especially when you don't want to hear it.
Kurt is sensitive and easily hurt.
Louisa wants to have a good time, and he won't let her.
Marta is a mystery to her, and someone needs to find her out.
Gretl just wants to be loved.
She ends it with the fact that all of the children just want to be loved by their father instead of brushed aside.
(*The Sound of Music*, 1959, p. 55)

Male and female stereotypes and expectations:

Women were given the right to vote in the 1920s, so they had more freedom and power in the 1930s than they previously did. Although there were still the expectations of a woman to get married and have children, rather than have a career, being supported solely by her husband. As Liesl is almost an adult, she is being introduced to this world and her expected future, without anyone there to explain it to her and help her. The expectations of men had changed less than women, where some women were working, men still were seen as the bread winner of the family, with pressures to be financially successful, as well as emotionally repressed to show more strength *(GCSU, Year Unknown)*. The two boys, Kurt and Friedrich, are scared and hurt by their father's neglect and they don't know if they're allowed to show it.

(Keck, 2014)



(Edelweiss Patterns, 2011)



Character Research: The Children (and Liesl):

(Starkey, 2017)

Attitudes towards parenting:

1850-1950 there is a shift from strict parenting to affectionate parenting. Middle class mothers became more involved with childcare, and servitude declined.

Upper class parents remained formal and distant from their children. Whilst working class parents remained strict for a longer time, as the overwhelming amount of children compared to resources meant a need for discipline. Although affection was expected within those families, they were built around love not status. It is concluded that parenting had less to do with class and more to do with personalities. *(Violett, Year Unknown)*





(Bertram, 2025)

I think that as an upper-class family, including the Captain's navy background, it is accurate that they would have experienced harsh discipline and control in their lives, each day planned out meticulously in order to force them into a way of life expected of them. Their money also meant they had help, cleaners, cooks, and a governess who raises them on behalf of the parents.

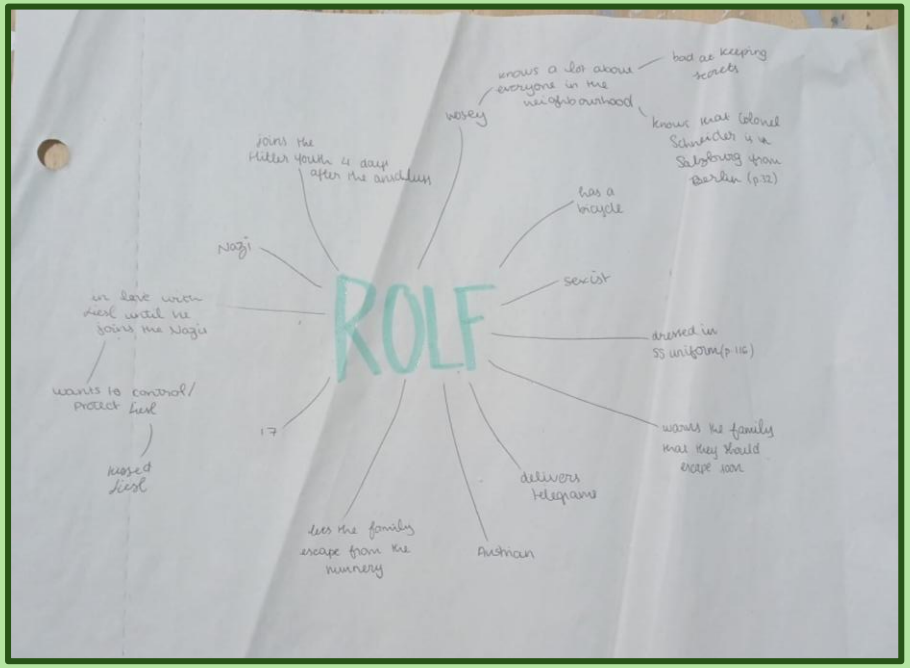
I like how the sound of music explores this breakdown and transformation of parenting styles which was present in the 1930s.

Character Analysis: Rolf Gruber

→ Telegram delivery boy, 17 years old
→ Likes Liesl and often sneaks to her house on the pretence of delivering a telegram just to see her, his childhood innocence is present at the start of the story
→ Implied he has joined the Hitler Youth
→ At the end he has joined the SS, seen in an SS uniform, he has just turned 18
→ Loves the Nazi Party and supports Hitler, thinks it's right for Hitler to take over Austria, embraces the Anschluss, thinks the Captain should embrace it too
→ A sudden disinterest in Liesl when his interest in the Nazi Party grows, his innocence has been taken away and replaced with the propaganda given to him
→ Saves the family at the end of the play by lying to his superior and claiming they're not there, some feelings and kindness remain
→ The Captain dislikes him from the beginning, after seeing him salute Hitler, the Captain despises what the Nazi Party are doing to children
→ Knows more than people think, due to spying he's able to do as a telegram boy (you could imply he was using Liesl to spy on the Captain, but this doesn't hold up as he stops seeing Liesl when the Nazi Party are the most interested in the Captain)

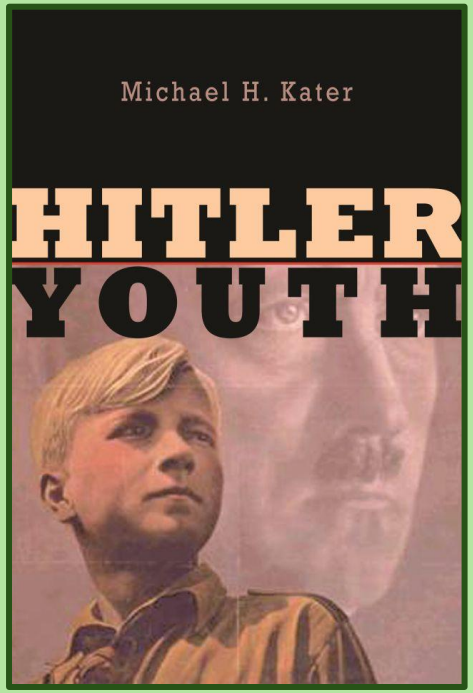
→ He knows Colonel Schneider is staying with the Gauleiter and asks Liesl not to tell her father, he keeps tabs on people (a trait the Nazi Party promote)
→ Maria shows politeness towards him when they first meet as she knows how important he is to Liesl, despite his clear interest in the Nazi Party
→ Rolf ignores Maria and refuses to give her the telegram, but is okay with giving it to Franz, who he knows also supports Hitler, he is sexist and dismissive of women

Mind map created as a class and drawn by Annie Picton.
→



Character Research: Rolf Gruber

The Hitler Youth: *(National Holocaust Museum, Year Unknown)*
The Nazi party wanted complete loyalty to Hitler, so they made the indoctrination of children a priority in order to make this long lasting and effective to generations to come. Children were a focus of propaganda, and soon the Hitler Youth were formed in an attempt to mould the children into controlled and loyal adults.
This was highly effective, as members of the Hitler Youth were some of the most committed Nazis, not understanding a life outside of Nazi Germany and the world before them.
They were exposed to their ideas around a 'Master Race' and prepared for future entry into the SA (Nazi Party's paramilitary) and SS.



(Kater, 2006)

The leader of the Hitler Youth group from the 1920s to 1931 was Kurt Gruber, although replaced in 1933 *(National Holocaust Museum, Year Unknown)*. Gruber is the same as Rolf's last name, showing their connection and Rolf's part in the Hitler Youth.



←*(Facing History & Ourselves, 2016)*

The youth movement began in the 1920s, before Hitler came to power. After he came to power, they incorporated other youth groups (such as boy scouts and catholic groups) in order to reach as many children as possible.
In 1939 membership became mandatory for children, requiring them to serve from the ages 10 to 18.
Although they prohibited certain children to join, as well as racial prohibitions, they refused entry to those struggling in school.
Completion of certain Courage Tests allowed children to carry the Hitler Youth Dagger.
Sport was a large part of the Hitler Youth activities, training children for war and military futures.
Parents who did not enrol their child were fined, or worse imprisoned. *(National Holocaust Museum, Year Unknown)*

Character Research: Rolf Gruber

The SS: *(World Jewish Congress, Year Unknown)*
SS stood for Schutzstaffel (protection squadrons), and was originally a paramilitary organisation, giving security to the Nazi Party. A paramilitary group is an unofficial force similar to a military force.
Led by Heinrich Himmler, they became a virtual state within Nazi Germany. Meaning they became a parallel power structure to the Nazi Party, within Germany. Responsible for enforcing racial policies, persecuting political opponents, and other opponents of the regime.
In 1933 they began running the concentration camps, where opponents were imprisoned, tortured, and killed. In 1941, this included the death camps in Nazi-occupied Poland, where millions of Jews were murdered in the holocaust.

(Verzets Resistance Museum, Year Unknown)





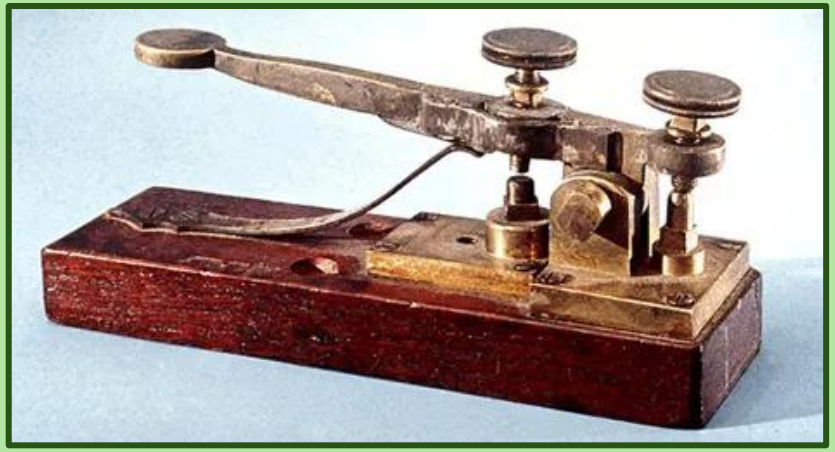
(Wikipedia, 2025)
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(World Jewish Congress, Year Unknown)
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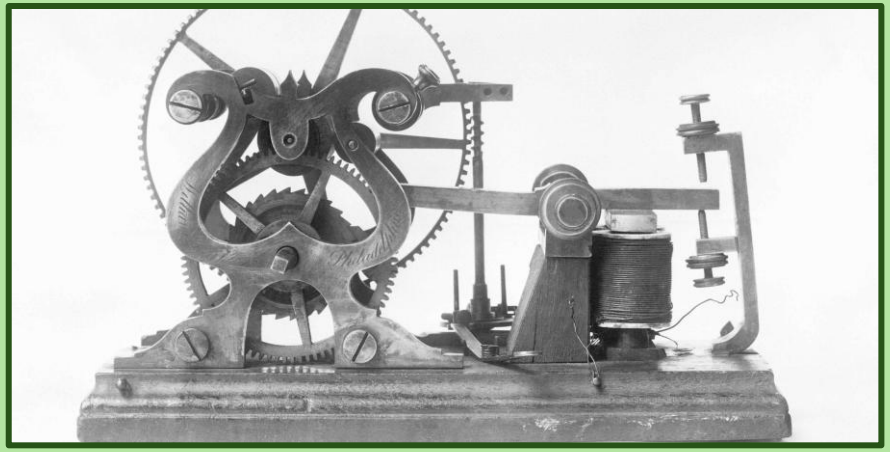


Character Research: Rolf Gruber

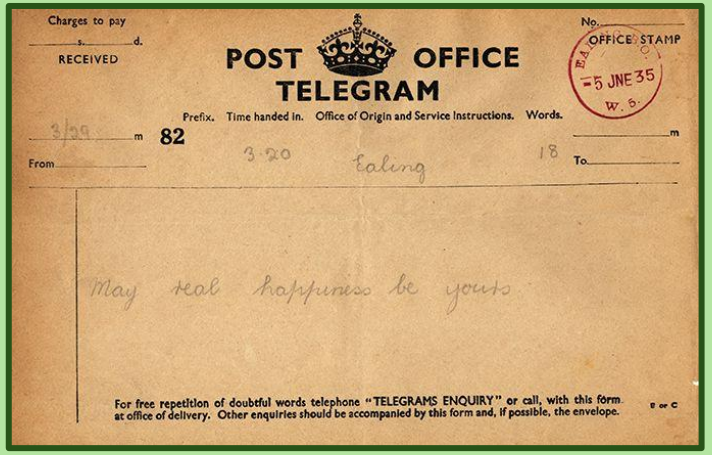
(Stamp, 2013)



(Sky History, Year Unknown)



(Crossan, 2018)



Telegrams and their War Relevance:

Samuel Morse constructed the Morse Telegraph in 1837. Morse Code was developed by Alfred Vail (a combination of dots and dashes representing letters of the alphabet). Soon after, Morse Telegraphy could be used worldwide.

Morse Telegraphs used electromagnets to record signals received on paper. In the 1840s, the Morse Telegraph was taken to Germany and Austria to try to sell it in Europe.

The international standard of morse code was then created in 1864 by Friedrich Gerke in Hamburg.

In 1850, a telegraph line was opened running from Munich to Salzburg.

Originally, telegrams were used to make travel arrangements, as they arrived before you did and were faster than normal mail.

They became useful for military communications, meaning commanders could control mobile troops easier.

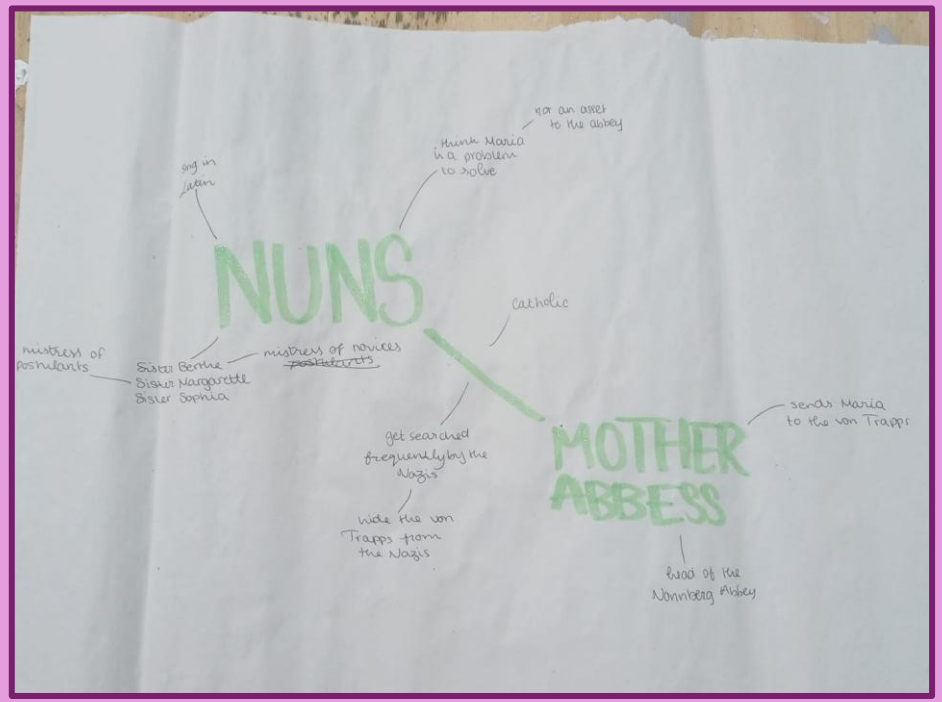
In the 1930s telegrams were well established in society and no longer a new exciting innovation. Telephones were becoming popular and were a lot quicker and easier to communicate with. *(Museum for Communication Berlin, Year Unknown)*

Character Analysis: The Nuns and Mother Abbess

→ ‘Mother’ suggests she is higher ranking
→ Sister Berthe dislikes Maria a lot and thinks she is not an asset to the abbey
→ Sister Sophia claims Maria’s penitence is real. Despite the negatives she is still a true catholic (an argument about whether it really matters how Maria has flaws when she is a devout Christian, what are their priorities?)
→ Sister Margaretta wants to defend Maria and says she makes her laugh, can’t think of another positive
→ Mother Abbess has a lot of patience for Maria and wants to guide her, her name implies a nurturing nature
→ Mother Abbess also likes to sing and grants Maria permission to sing. They sing with each other (a song Mother Abbess used to sing as a child), Mother Abbess likes Maria and wants the best for her
→ Mother Abbess sends Maria away to the von Trapp family, as she believes Maria needs to consider her true life’s purpose, seen as a punishment but really it is a blessing

→ Mother Abbess doesn’t pressure Maria to speak to her after Maria flees the family. Abbess then reassures her that she is allowed to feel love, and she embrace the situation as her true purpose. She doesn’t make Maria feel ashamed for being who she is, like the other nuns
→ The nuns hide the family from the Nazis in the abbey. They often get searched by the Nazis, probably to check whether they are hiding anyone. They reject the Nazis and the Anschluss, protecting those the Nazis antagonise.

Mind map created as a class and drawn by Annie Picton.
→



Character Research: The Nuns and Mother Abbess

The Hierarchy/Order of Nuns:

An abbey is a convent under the government of an Abbess

A Prioress is lower in rank than an abbess when they are not in charge of a priory. *(Satsujin, Year Unknown)*

In convents, postulants and novices have a Novice Mistress (Mistress of Novices, Mistress of Postulants), helping new-comers adjust to the new way of life. *(Viessman, 2020)*

The role is to prepare their souls for God, not to hold any power or control over them, only to guide them and teach them a nun's way of life. *(Carmel de Lisieux, 1883)*



(Gamble, 2018)

(Gadoua, Year Unknown) →



How Nuns were Treated during WW2:

Many priests and nuns engaged in rescuing those under persecution by the Nazi Party during World War 2 (as suggested at the end of the play, when the nuns hide the family in the abbey).

Nuns and priests assisted people in hiding, escaping, providing false identities, and providing food and shelter.

Those that were caught were sent to concentration camps and many were killed, they risked their lives knowingly, in order to save as many people as possible.

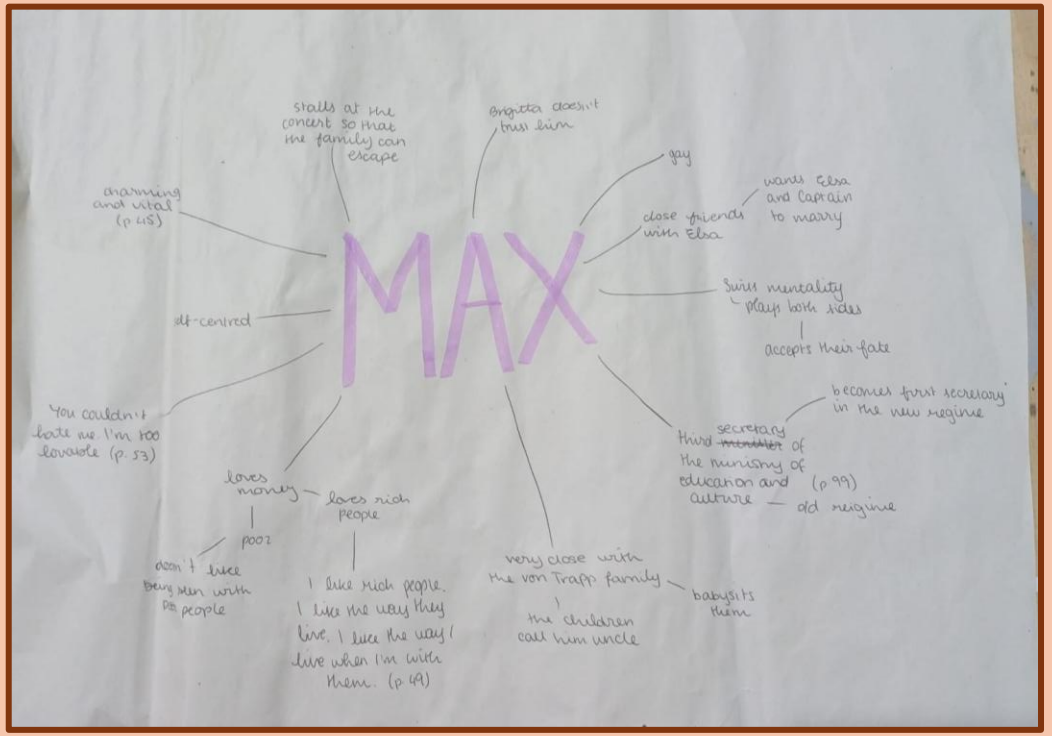
(Rogow, 2003)

Character Analysis: Max Detweiler

→ Talks as if he's poor, claiming he loves rich people and the way they live. Although he is not poor just not as rich as the Captain and Elsa- self-pitying despite how comfortable he is
→ He was 3rd Minister of Education and Culture, after the Anschluss he becomes 1st Minister of Education and Culture, this is because he plays 'nice' with the Nazis to keep is position
→ He is neutral towards the Nazi Party and doesn't want to take sides. He wants to wait until it all blows over and protect his position. Prioritising his self-preservation over the nation's safety
→ Builds up a good relationship and reputation with the Nazi Party so he doesn't get in trouble, self-preservation again
→ He helps the family escape at the end with the concert he organised, using his reputation with the Nazis as reassurance and a distraction, puts someone else before him and his life at risk
→ Always puts together a festival in the summer showcasing musical talent and is determined to have the children perform in the festival, passionate about music and culture
→ He is pushy and obsessive with the children's singing abilities, constantly thinking about how to make more money
→ Friendly with Elsa, they discuss convincing the Captain to marry her as if they are quite close friends and have known each other a while, he might have brought the Captain and her together

→ Describes a distant house as a dilapidated castle and suggests Rumpelstiltskin lives there → it is the Baron and Baroness Elberfeld's house, he is pretentious and arrogant, behaving rude to others as a result
→ He doesn't want Maria to dine with them because she's a 'nursemaid', creating a strong sense of class division which we haven't seen between Maria and the others until now

Mind map created as a class and drawn by Annie Picton.



Character Research: Max Detweiler

Salzburg Music Festivals:
The Salzburg Festival was created in 1920 by the director Max Reinhardt, writer Hugo von Hofmannsthal, and composer Richard Strauss. The first festival was a play performance in Cathedral Square, soon concerts and operas were added. The festival struggled during World War Two but returned to normal soon after the war ended. The festival holds a huge respect for tradition but is constantly expanding and developing. *(Salzburg Info, Year Unknown)*
Interesting as Max Detweiler shares a first name with one of the founders of the festival, connecting the two strongly.



(Haas, 2019)



← *(Grüssl, 1914)*

Ministry of Education and Culture:
The ministry for education, arts, and culture in Austria provides funding for contemporary art
Founded in 1848. *(IDF, Year Unknown)*
A minister is a member of the cabinet who leads a certain division of the ministry. They do not report to the president/chancellor, but their decisions can be reviewed. *(Wikipedia, 2024)*

Character Research: Max Detweiler

Attitudes towards the Anschluss:

According to Evan Burr Bukey, no more than a third of Austrians ever fully supported the Nazi Party during Nazi Germany.

After having only recently gained independence, the country was going through a transitory period politically. Many believed Austria and Germany should unite, but many also believed they should remain independent → these views were unrelated to Hitler and the Nazi Party, and more towards Germany as a country.

Although many of these views come through the middle and upper classes, history has erased many working-class views.

As the referendum after the Anschluss was rigged, I think it's safe to say the majority of Austrians disagreed with the Anschluss and the Nazi Party.

(Linkey, 2022)

(Holocaust Encyclopedia, Year Unknown)





(Imperial War Museum, Year Unknown)

(Britannica Editors, 2025)
→



Character Research: Max Detweiler

Class Division in the early 20th Century:

From 1870 to 1920 there was an increase in middle class people
Class division is usually associated with industrialisation, splitting people into employers and the employed, as well as splitting people into those who own land/property and those who rent it.

During this period, there was an increase in the middle class, as those who were previously working class had worked their way through the ranks to own property and companies. Introducing New Money into a previously Old Money world.

The lifestyles and experiences of the working class have been mostly erased due to the working classes lack of literacy and access to education at the time.

Alan Payne suggests that the middle class created class division.

The heart of the middle-class life was family and the home, something the upper class felt less of due to the amount of staff accessible to them. Whilst working class families had a higher sense of family and connection, middle class families had this too. With the mother not expected to work as they were rich enough not too but still expected to complete all of the domestic duties (albeit with some help maybe, depending on their income). *(Payne, 2015)*

(Schlup, 2018) →



(Find My Past, Year Unknown) →



In 1900 a maid was the most common occupation for a woman in the working class, who did not live on a farm. Many were moving to the city for employment. Many began service at 14. Society believed that working as a maid/servant would provide a woman with the skills needed to later be a housewife, if they ever had the 'privilege' of getting married. Their life revolved around service, with only a few hours off each week, these hours dedicated to seeing your own family or going to church. The family they served was the priority, and their lives became impossible and non-existent. Many servants were regarded with contempt and women were often harassed. *(Schlup, 2018)*

Character Research: Max Detweiler

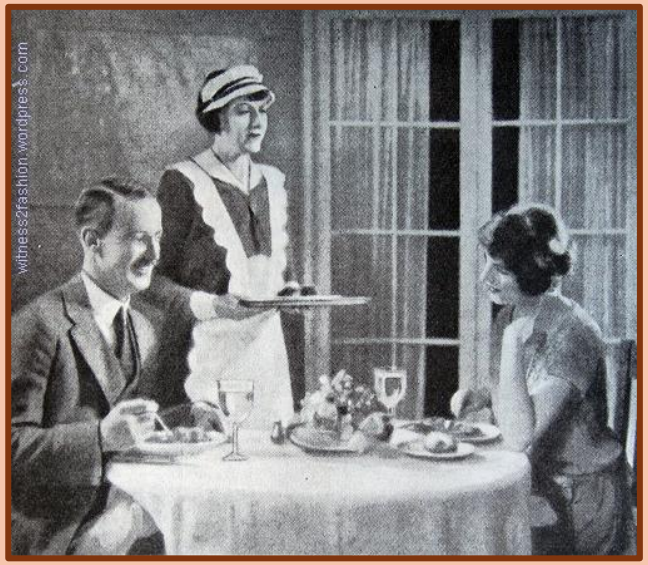
Hierarchy of Servants:

The housekeeper and the butler were at the top of the servant hierarchy, addressed by their last name and the leader of any other servants. Other servants addressed those above them by their last name and those below them by their first name, creating even a class divide within the working classes. Ursula the maid is called by her first name, whilst the housekeeper is called by her last name (Frau Schmidt), Franz is probably a more personal relationship with the Captain, as it is an informality.

Governesses were a strange in between. They often came from upper class families who were struggling financially, having been educated they could utilise this skill for dignified employment. They were halfway between a normal servant and a lady. Considered the only acceptable job for a well-born lady. *(Hatch, 2018)*



(JMD Sale, Year Unknown)



(Witness2Fashion, 2015)

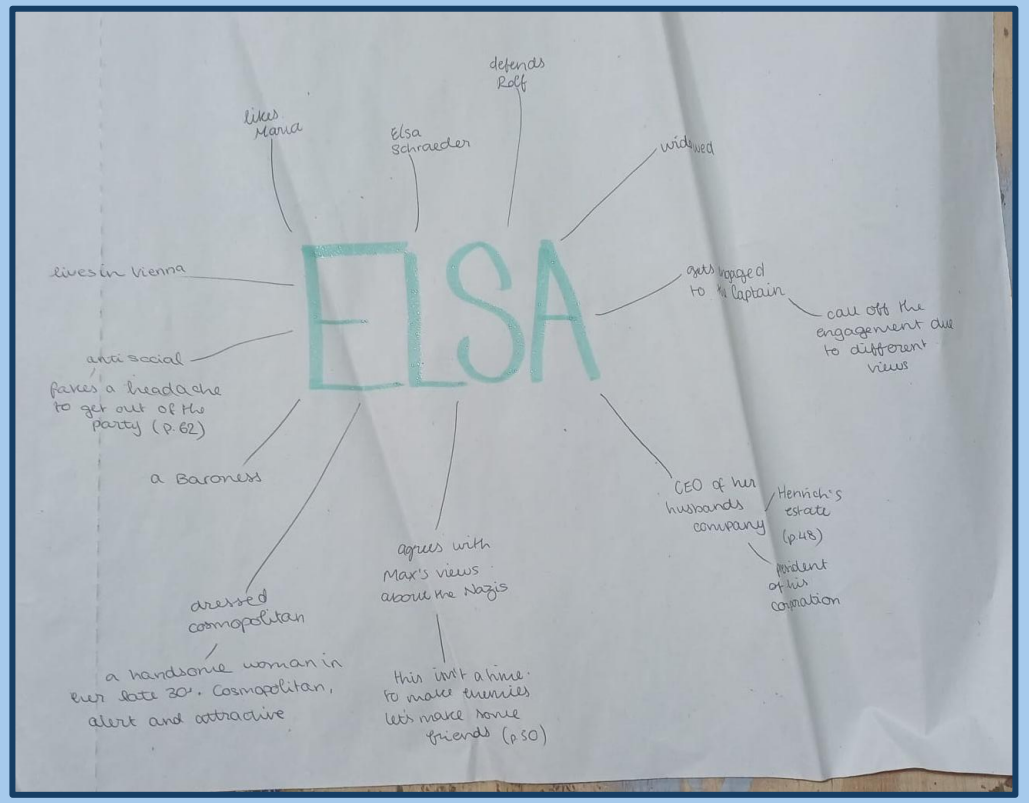
We see in a scene Max and Elsa confused by the Captain's invitation for Maria to dine with them, as they see her as staff → she is below them, and yet slightly above Frau Schmidt and Franz, supposedly why we never see them interacting. The governess is a lonely role and Maria is lucky to have a good relationship with the children. The Captain, despite being a Navy Captain, is quite informal and personable with his staff (to an extent). He feels comfortable inviting the governess to join them and speaks with respect to his butler and housekeeper. He understands hierarchy and rank, but also understands everyone is a person first, not just a role.

Character Analysis: Elsa Schraeder

→ President of her previous husband's company/corporation (page 48), widow like the Captain
→ Rich due to inheritance and lives in Vienna
→ Wants to marry the Captain and is trying to slowly convince/persuade him, as if it's a business deal rather than a relationship
→ Has her husband's estate to look after
→ Captain and her separate due to their conflicting political views
→ She agrees with Max in the neutral approach to the Nazi Party, she wants to protect herself, her company, and her position, she is unbothered by them → therefore she would be endangered if she married the Captain who openly defies them
→ She is set up as the children's new mum, they are not pleased to find out, and she seems disinterested in them
→ Returns the Captain's engagement ring
→ She is an honorary Baroness, she has a lot of status in society
→ She appears to be avoiding the party by pretending to have a headache, is she avoiding the arguments between the two political parties in attendance?
→ She is fashionable, described as cosmopolitan and attractive

Cosmopolitan:
Having wide international sophistication
→ she is sophisticated and cultured, due to her class and wealth
(Merriam-Webster, 2026)

Mind map created as a class and drawn by Annie Picton.



Character Research: Elsa Schraeder

Female Presidents/CEOs:

Women could not make wills without their husband's permission. Once married, a woman's property became her husband's. Married Women's Property Act 1882 allowed married women to own and control their own property. Widows could regain property they lost to marriage and even keep it when remarrying.

In 1850 most adults didn't have enough wealth to make a will worth it.

As Elsa is a baroness by marriage, it can be assumed her husband has enough money for a will, providing her with the wealth to maintain her status in society without him. She also inherited his company and property, so would be able to keep it if she had married the Captain. *(Treethorpe, 2024)*



(Postle, Year Unknown)
←

(Recollections, 2024)
→



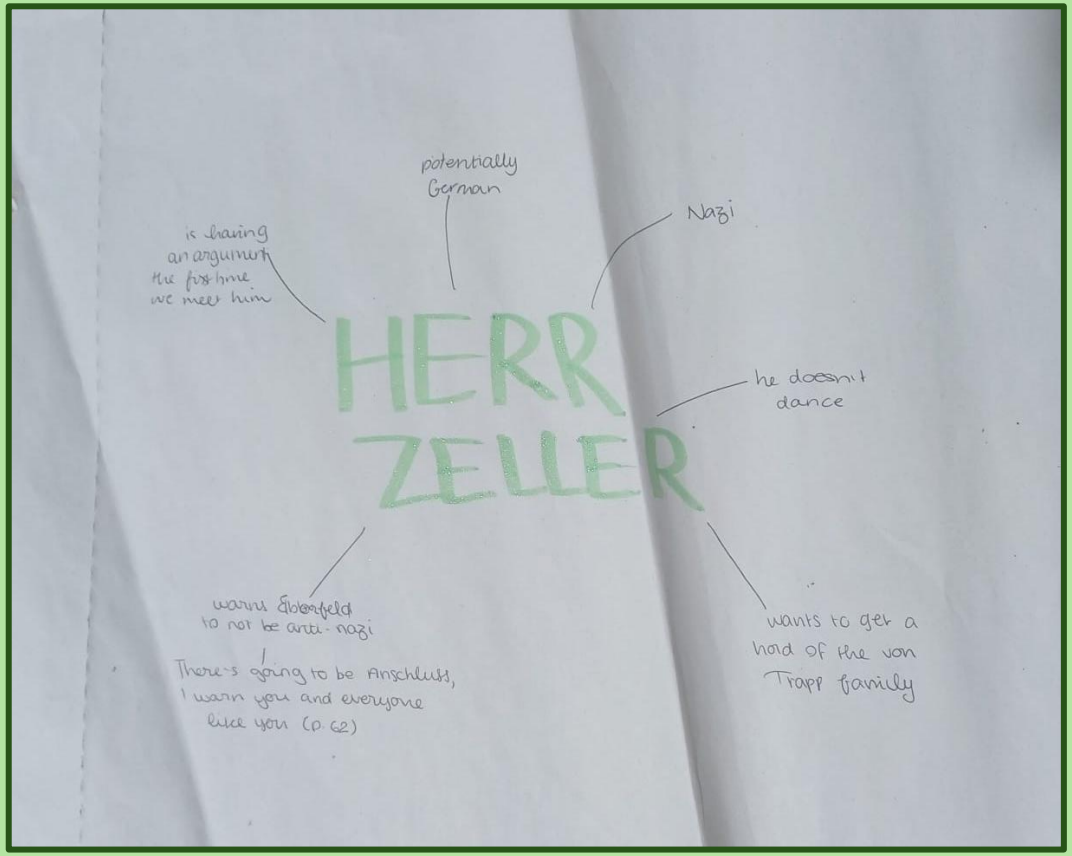
Baroness (Honorary):

A baron is the lower rank of the nobility. The wife of a baron would be a baroness. Elsa is an honorary baroness, through marriage, it is below royalty but above baronets and knights *(Zelasko, 2025)*. In the mid-1200s it was changed so that barons were able to be made from life accomplishments and not just from owning land. This was made so by the King. non-hereditary peerages were only created in 1958, so it was uncommon for a woman to have been given the title outside of inheritance and marriage at the time the play is set. *(Mehl, 2019)*

Character Analysis: Herr Zeller and the Nazis

→ He is from Berlin, Germany
→ Obsessed with the idea of German blood
→ At the Captain's party he warns of the Anschluss before it has happened
→ Argues with Baron Elberfeld about German blood and purity
→ Turns up at the Captain's house whilst he is on his honeymoon and demands to know why there's no flag raised and when the Captain will return
→ Objects to von Schreiber postponing the Captain going to Germany for the concert, he is suspicious of their plan
→ Really wants to take the Captain and is there to chaperone him, does he want the Captain because he will make their navy stronger, or are his motivations around intimidation and humiliation of someone more powerful than him?

Mind map created as a class and drawn by Annie Picton.



Character Research: Herr Zeller and the Nazis

Blood Supremacy Ideology in the Nazi Party:

Hitler's obsession with race was pushed into the ideologies of the Nazi Party, in their campaign they used propaganda to turn the frustrations of the general public against certain groups of people, mainly the Jewish population in Germany. Hitler created the idea of an 'Aryan Master Race', this was the idea that white people, primarily with blonde hair and blue eyes, were above all others. The Nazi Party believed that Jews were a threat to their 'Master Race'. Once in power, these ideologies were spread into the news, education systems, films, radios, and posters. The Nazi slogan 'Blood and Soil' was used to evoke ideas around the pure Aryan race and their relationship with the land, justifying land seizures around Europe and forcing certain groups of people out of the country. The Nazi Party blamed Jews for the country's cultural, political, and economic 'degeneration'

(United States Holocaust Memorial Museum, Year Unknown)



(United States Holocaust Memorial Museum, Year Unknown)

Location List:

→ Nonnberg Abbey: interior, garden, Mother Abbess' office, corridor, cloister overlooking chapel

→ Mountainside near abbey

→ Von Trapp villa: living room, hallway, exterior (stone bench/gazebo), Maria's bedroom, terrace

→ Concert hall stage in Kaltzberg

Location Research: Abbeys

→ Standard features of abbeys include the main church, cloister, the chapter house, refectory, library, and dormitories.
→ Many abbeys were built on mountains and in remote locations, so as to create an atmosphere of solitude and silence, creating a closer proximity to God.
→ The Norman Abbey became the standard after the 11th century. In the 13th century, their wealth increased and so Abbeys became grander, often featuring Gothic architecture. Abbeys were built out of stone, either local stone or limestone and granite.
→ Key features were columns, archways, diminished arches around doorways, mouldings, statues, carved patterns, and intricate stained-glass windows
→ A cloister is the centre/heart of the abbey. A cloister is an arcade usually around an open square. The cloister is only accessible to the nuns.
→ The church was built to be joined to the cloister. Often with multiple doorways and statues of saints connected to the abbey. The main church would have a belfry tower to call services by ringing the bell.
→ Dormitories had the bare minimum. Some abbeys had separate cubicle rooms, each with a bed, desk, and window.
→ Most abbeys were self-sufficient and grew vegetables, fruits, and herbs. Some bred fish in ponds, and they would get meat from local farms.
→ Food was served in the refectory, with long tables and benches.



(Salzburg Info, Year Unknown)

(Salzburg Info, Year Unknown) →



←*(Cartwright, 2023)*

Nonnberg Abbey:

Its full name is Benedictine Nonnberg Abbey. Famous for its Gothic architectural elements and murals. The nuns sing Gregorian Chorals every morning.
It was founded around 711-715. It has a Gothic winged altar with a statue of Mary as the centrepiece. (Maria and her connection to Mary by name)
Its crypt has free-standing columns. It has a crucifix from 1300, and famous paintings from the 12th century. *(Salzburg Info, Year Unknown)*

Location Research: Native Flowers and Plants

Mountains of Austria and Plants Native There:

Most Common Plants: *(Picture This, Year Unknown, a)*

Sycamores, European Beech, Norway Spruce, Oregano, European Ash, Common Hazel, Elder (*blooming in summer*), Common Bugle (*blooming late spring and summer)*, Red Clover (*blooming late spring and summer*), English Ivy, Woodland Strawberry

Most Common Flowers: *(Picture This, Year Unknown, b)*

Common Yarrow (*blooming late spring and summer*), Purple Loosestrife (*blooming in summer*), Bigleaf Hydrangea *(blooming in summer*), Sweet Cherry (*blooming early spring and mid-spring*), Meadow Buttercup (*blooming spring and early and mid-summer*)



Elder.
(Picture This, Year Unknown, b)



Common Yarrow.



Common Bugle.

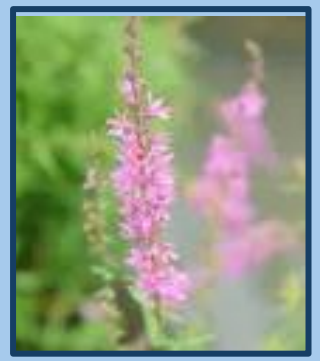
(Peak Visor, Year Unknown)



Bigleaf Hydrangea.

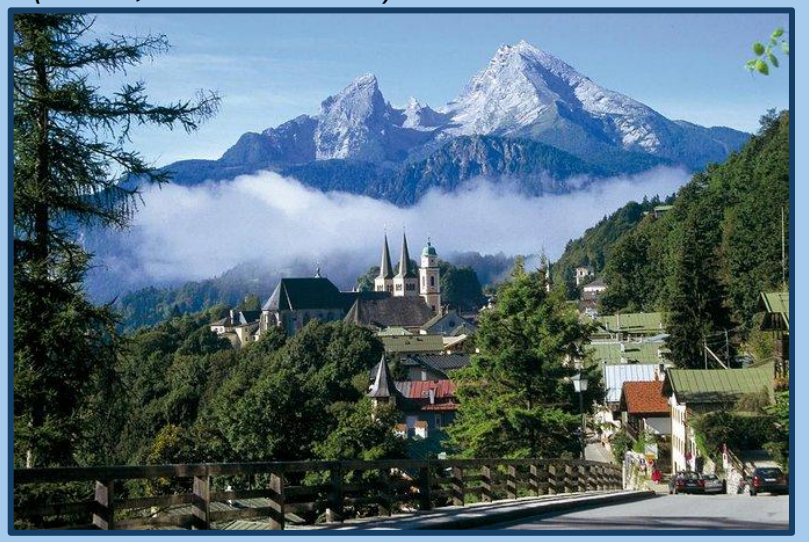


(Picture This, Year Unknown, b)



Purple Loosestrife.

(Viator, Year Unknown)



Location Research: Flower Language and Symbolism

Edelweiss:

Edelweiss → known as the eternal flower, symbol of strength, eternity, and true love. As it grows on high mountains, it is rare and exclusive, it is resilient in harsh conditions. The white colours hold connotations of purity. Its durability is what gives it the title of the eternal flower, surviving harsh winds and cold temperatures.

In Austria, it is associated with love and courage. There are folktales around men climbing mountains to pick Edelweiss for their true love. *(Orchid Florist, 2024)*



(Thursd, 2025)

Austria's Tradition of Flower Giving:

Austria's tradition of giving flowers has been used for years as a tool of communication through symbolism. Red carnations are a symbol of mourning and funerals, a farewell with sombre sentiments. Lilies are also associated with memorial services. White Chrysanthemums are used at graveyards and in remembrance.

Roses, gerbera daisies, and tulips are flowers associated with love, friendship, and celebration. *(Flourishing Journey, 2023)*

(Picture This, 2024)

→

Austrian Brier:

The Austrian Brier symbolises jealousy and infidelity. *(Picture This, 2024)*



Location Research: Architecture

Villas and Rich Houses:
1900-1940
Modernism in architecture began in 1900 with Art Nouveau. Art Nouveau broke traditional decorative norms but kept some (later the New Building movement removed all ornamentation). *(Salzburg Guide, Year Unknown)*

(Salzburg Guide, Year Unknown)



Villa Schall, 1900
Decorative forms were inspired by Roman antiquity. Art nouveau featured canopies and window grilles.

(Salzburg Guide, Year Unknown)



House Weidlich, 1932
Combining curves and varying levels through the buildings.
Villas were often designed for a specific person, if rich enough. It is likely that their villa was built for them.

(Salzburg Guide, Year Unknown)



Mozartsteg, 1903
The bridge they walk across in the film
Built in the Art Nouveau style.

The Biedermeier Era:
Biedermeier was from 1815 to 1848, the middle class growing in numbers. Elegant interiors and furniture design. Paintings and living rooms, house concerts, public dances. *(Brownlow, 2025)*

Location Research: Austria

Austria's History: *(Austria Info, Year Unknown)*

→ Around 400 BC Celtic people settled in the Eastern Alps, with one of their main regions of occupation being in Hallstatt as there was a large salt mine.

→ By 15 BC Romans dominated the entire area of modern-day Austria.

→ By 200 AD German tribes were extending territory into Austria, by 500 AD Bavarians controlled certain territories.

→ In 996, the Ostmark, a territory in the Danube Valley, was first referred to as 'Ostarrichi', which later transformed into the modern German word 'Oesterreich' (Austria in German)

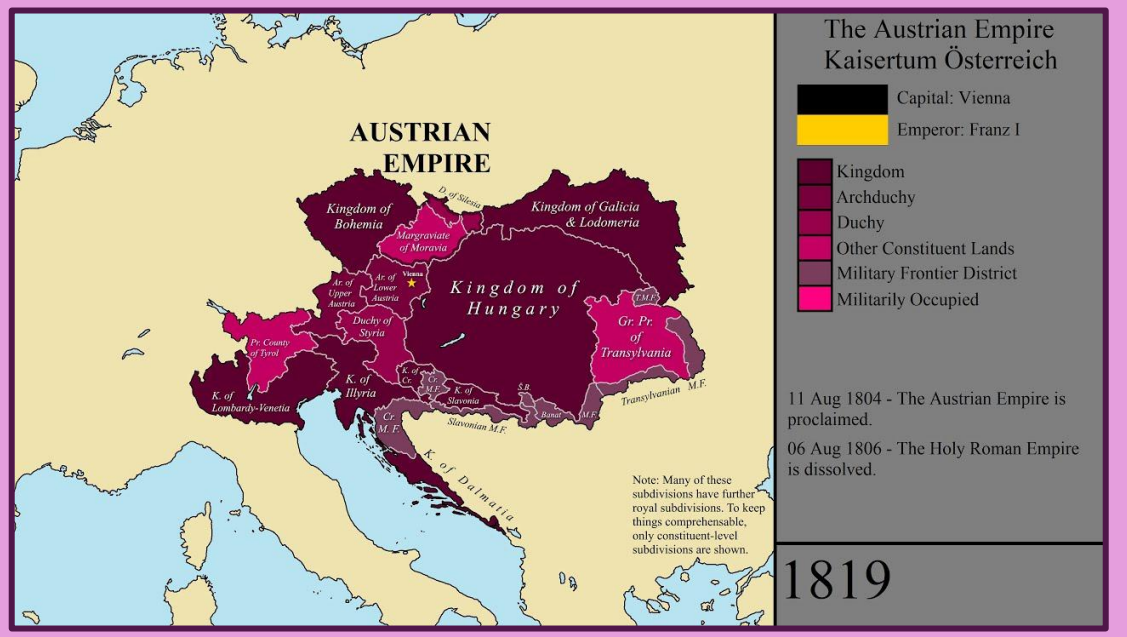
→ In the 12th century, Henry II moved to Vienna, which became and stayed the capital city.

→ Around the 13th century began the Habsburg rule in Austria (lasting 6 centuries), ruling in the Imperial Palace in Vienna.

→ The Turkish Wars of the 16th and 17th century prompted Poland, Venice, and Russia to join the Habsburg Empire in order to stop Turkey's attempted sieges.

→ In the Baroque period, and with the end of the Turkish threat, art and culture flourished.

→ The rise of Napoleon was a threat to the Habsburgs, and after his defeat the continent's political map was redrawn, where the Austrian Chancellor attempted to consolidate Austrian power.



(EmperorTigerstar, 2024)

→ In the mid 19th century, with industrialisation and urbanisation, the middle class grew and people began to enjoy the arts again.

→ During Emperor Franz Joseph I's reign, he established Austrian Imperial Rule and made Vienna one of Europe's most important cities and the centre of a state extending from Hungary to North Italy, and deep into Southern Europe.

→ Sigmund Freud, born in Austria, theorised unconscious motives controlling behaviour and founded a school of psychology.

→ In 1900, Art Nouveau peaked.

(Austria Info, Year Unknown)

Location Research: Austria

Austria's History Continued:

→ The tensions and alliances from 19th century wars put the Austro-Hungarian monarchy in a tight spot.

→ The assassination of the Austrian archduke and heir to the throne, Franz Ferdinand, led to Austria's declaration of war against Serbia, leading to the beginning of World War I.

→ After WWI ended in 1918, the first Republic of Austria was founded. Austria suffered inflation, unemployment, and economic collapse.

→ In 1933, the new Chancellor Dollfuss, head of a right-wing government, attempted to protect Austria from Hitler. In 1934 he was shot and killed by the Nazis.

→ In 1938 was the Anschluss, where Germany occupied Austria until the end of WWII.

→ In 1945, Austria was occupied by the allies, the USA, Soviet Union, UK, and France, for a decade.

→ In 1955, Austria declared permanent neutrality.

→ In 1995 Austria joined the European Union.

(Austria Info, Year Unknown)

(Photocrom Print Collection, 1890-1900) →



History of Salzburg: *(Panorama Tours, Year Unknown)*

→ Founded in 696, with the Benedictine Monastery of St. Peters and Nonnberg Abbey, it was considered the 'Rome of the North'.

→ It became an independent church state, ruled by Archbishops, who were seen as Princes of the Holy Roman Empire.

→ Salzburg is dominated by the Fortress of Hohe Salzburg, Salzburg is known for its music, alps, glacial lakes, and villages. As well as Wolfgang Mozart being from Salzburg.

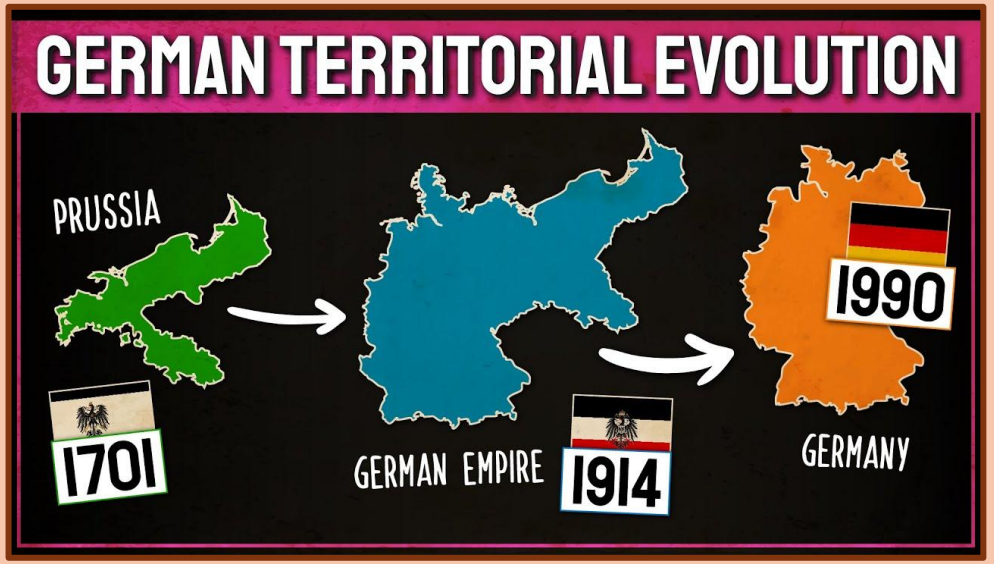
→ Its key architectural features are the Baroque and Italian Renaissance Architecture. Little remains of its Medieval Architecture due to a fire in 1818.

Location Research: Germany

Germany's History: *(BBC News, 2018)*

→ 800 AD, Charlemagne, Frankish ruler of France and Germany, crowned Roman Emperor.
→ 843 AD, Germany emerges as a separate realm
→ In 1250, the death of Emperor Hohenstaufen accelerated the empire's collapse.
→ 1438, Beginning of Habsburg dynasty based in Austria
→ 1618-1648 Thirty Year's War
→ 1806, Napoleon's armies impose French rule over Germany
→ 1813, Napoleon's defeat
→ 1848, start of rapid industrialisation
→ 1871 Otto von Bismarck unified Germany under leadership of Prussia, creates elected parliament, but Emperor has extensive power
→ 1888 build up of navy, growth of economic power
→ 1914 to 1918 WW1, Emperor William II abdicates, Treaty of Versailles and large reparations
→ 1919 Weimar Republic, inflation and unemployment
→ 1929 Global depression and mass unemployment
→ 1933, Hitler becomes Chancellor
→ 1938, Anschluss, Germany takes over Austria and Sudetenland
→ 1939 Invasion of Poland starts WWII
→ 1945 Germany defeated, Hitler commits suicide, allies divide Germany into occupation zones.
→ 1949, Germany split into East and West, West is Federal Republic of Germany, East is Communist German Democratic Republic

(BBC News, 2018)



(General Knowledge, 2022)

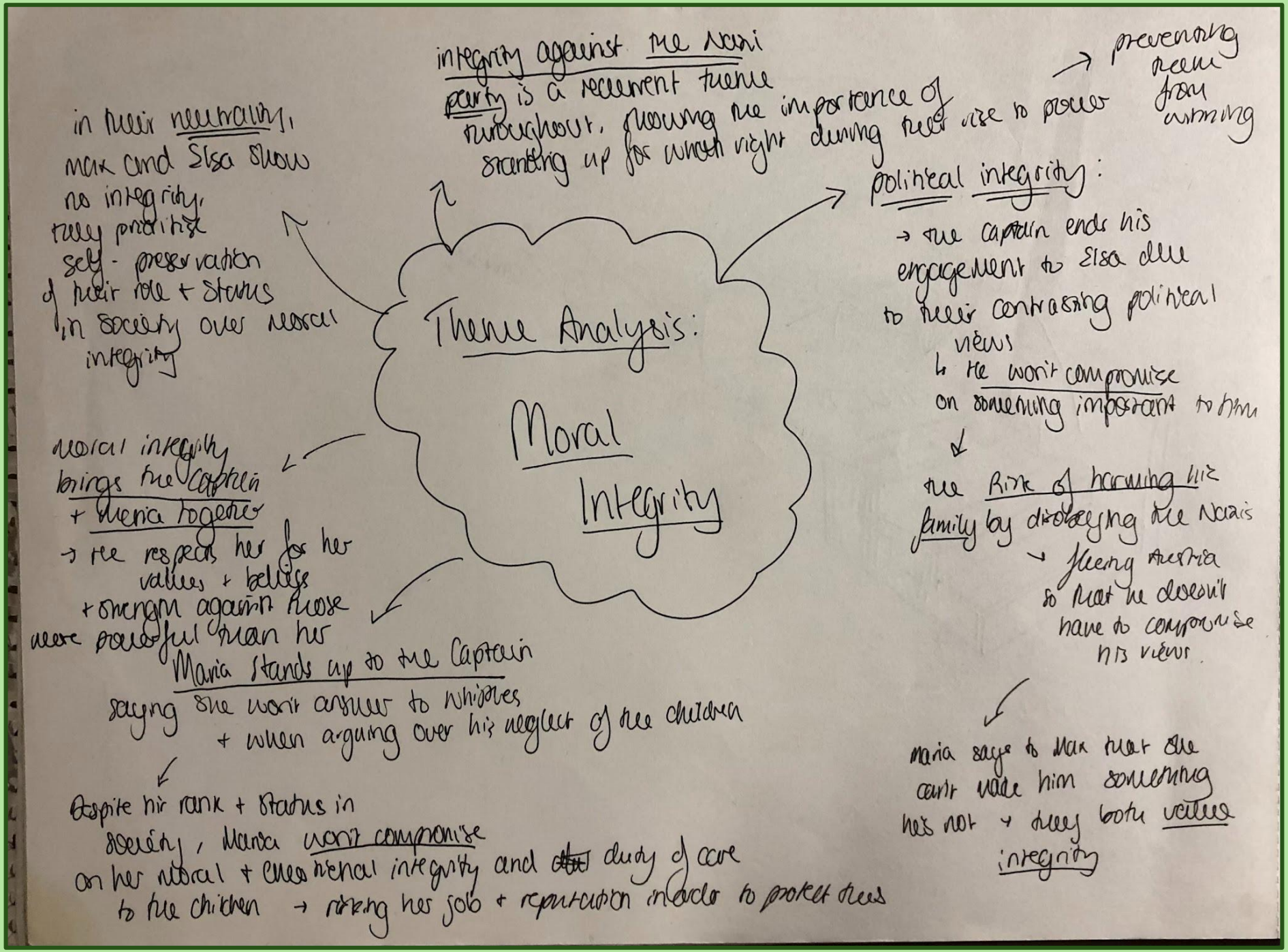
Berlin:

Berlin was the capital of the Kingdom of Prussia, and then in 1871 the capital of unified Germany.
Berlin survived the destruction of WWII.
(Reuter, 2026)

Theme List:

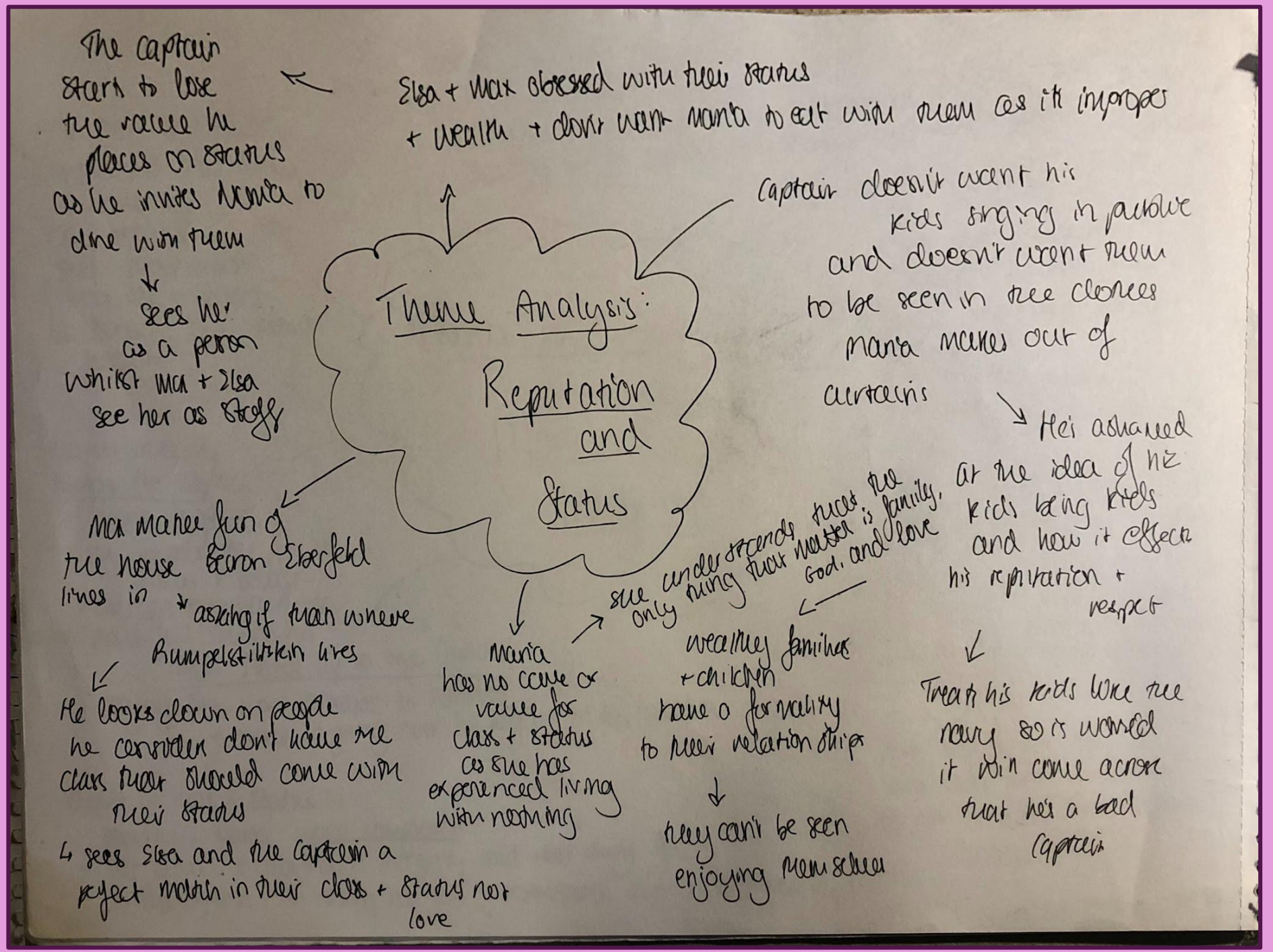
→ Childhood and growth
→ Love/romance
→ Family
→ Religion and faith
→ Moral integrity
→ Courage/bravery (vs. fear)
→ Parenting
→ Reputation and status
→ Class divide
→ Politics → Nazi Party
→ Death → widowed
→ War (navy)
→ Gender roles
→ conformity

Theme Analysis: Moral Integrity



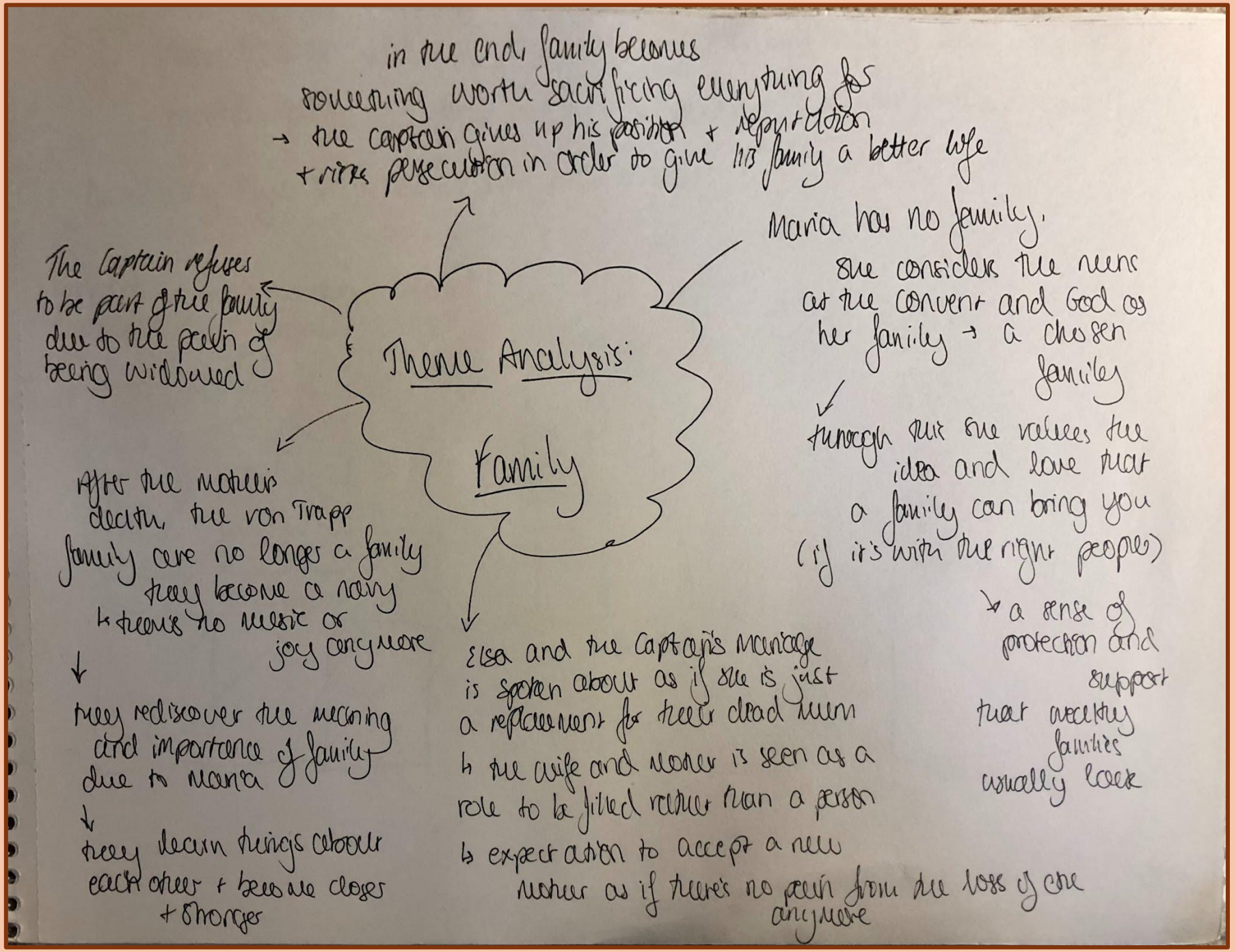
Mind Map created and drawn by me.

Theme Analysis: Reputation and Status



Mind Map created and drawn by me.

Theme Analysis: Family



Mind Map created and drawn by me.

Time Period Research: The 1930s

(S.E.C. Historical Society, Year Unknown) and (Johnston, 2025)

1930 → The 1929 Wall Street Crash triggered the Great Depression all over the world.

Global economic and political instability encourages authoritarian and fascist movements and groups to increase. Science and culture continued to advance, as a distraction and hope during a difficult time. The Great Depression forced the US Government to create a new net of social safety, transforming daily life by the end of the decade.

→ Pluto is discovered

→ America raises tariff rates by 20% causes trading partners to retaliate with even higher tariffs, plunging the USA into a deeper depression

1931 → Empire State Building finished construction

1932 → New York gallery holds a surrealist exhibition, introducing people to Pablo Picasso, Salvador Dali, Max Ernst and Marcel Duchamp

→ Amelia Earhart becomes first woman to fly solo across the Atlantic Ocean, later becoming first woman to fly a nonstop transcontinental flight

→ Franklin D. Roosevelt becomes President of the United States

1933 → New Deal provides Americans with jobs and funds for projects, building dams and stations and flood-control projects

→ Frances Perkins becomes first woman to hold a cabinet post in America, she pushes for minimum wage, maximum workweek, and limited employment of under 16s

(Vipond, Year Unknown) →





(Socialist Party, 2020) ←

1933 continued

→ Prohibition ends in America

→ Reichstag Fire (German parliament building burned down, Nazis used this to claim communists were planning an uprising)

→ Hitler appointed German Chancellor

Time Period Research: The 1930s

All information from S.E.C. Historical Society (Year Unknown) and Johnston (2025).

1934 → the Dust Bowl (severe drought and dust storms, ruining farmland causing starvation and mass unemployment leading to mass migration)
→ Hitler named Fuhrer
→ Night of the Long Knives, SS guards murder Nazi Party leaders, Hitler orders a leadership purge and murders SA chief Ernst Rohm in fear they are too powerful
→ Hays Code begins, regulating content in Hollywood films (preventing profanity, obscenity, slurs, and controlling how anything violent, homosexuality and interracial marriage is presented)
1935 → Germany enacts Nuremberg laws (removing citizenship from Jews and preventing marriages between Jews and those of 'German blood'
→ Italy invades Ethiopia
→ dust bowl storms, known as Black Sunday, with 60-mile winds lifting soil putting many in darkness
1936 → King Edward VIII abdicates
→ Rome-Berlin axis (Alliance between fascist Italy and Nazi Germany formed, putting Austria at risk)
→ BBC debuts television service
→ Military revolt by fascist forces against Spain's leftist government starts the Spanish Civil War, with the war's end in 1939, a dictatorship is established
→ Germany hosts the Summer Olympics, African American athlete Jesse Owens wins four gold medals, challenging Hitler's Aryan supremacy claims
1937 → Hindenburg explosion (large German airship explodes in New Jersey, killing 36 people)
→ Amelia Earhart vanishes
→ Japanese Imperial forces seize Nanjing, the Chinese Nationalist Capital, becoming known as the Nanjing Massacre as troops commit mass executions, sexual violence and looting.
1938 → Kristallnacht (night of broken glass, the SA, SS, and German Citizens destroyed Jewish-owned businesses, homes, and synagogues)
→ Anschluss of Austria
→ Munich Pact (an agreement signed by Germany, Britain, France, and Italy allowing Germany to take over Sudetenland to prevent war- this was later broken by Germany as Hitler seized the rest of Czechoslovakia)
→ Nuclear fission
1939 → Russo-Finnish war
→ The Wizard of Oz starring Judy Garland is released, winning Academy Awards for score and song.
→ Germany invades Poland, Britain and France declare war on Germany. WWII begins.

Analysis Questions:

1.What is the plot?

The plot of The Sound of Music follows a postulant called Maria, who is uncertain on her true purpose in life and is sent to explore this as the governess to the von Trapp children. In doing this she meets the Captain and both develop feelings for each other, which Maria rejects due to her belief her love is only meant for God. They soon get married and whilst on their honeymoon the Anschluss happens, and the Nazis have now invaded Austria. The Captain and Maria decide to flee Austria with the children in order to escape them, they are nearly captured but manage to escape over the mountains into Switzerland.

2.What is the theme/message?

I think the key message of this play is to follow your heart and judgement in life, to trust your own emotions and moral beliefs in order to make the right decisions and find your true purpose in life. On top of this is the strong theme of standing up for yourself, for others, and for what's right, despite what other people say or what more powerful people want you to do. We see this carried the strongest through Maria and the Captain, and it brings them safety and a happy ending.

3.What is the logic? Does the story make sense?

The illogical part of this play is the fact it's a musical, the constant singing is unrealistic and doesn't make sense. But it is an exaggeration of the truth, as the real von Trapp family were musical and were known for their love of singing.

3. Continued:

So, although it is an illogical part of the world, it only enhances their characters and reputation. Other than the singing, the story makes sense.

4. What is the exposition? What are the characters thinking/doing?

Maria → Maria's thoughts revolve around religion and what others need. She prioritises other people's feelings, ensuring they are supported and okay. Her faith and love of God is carried through all of her actions and thoughts, leading to her conflicting action of leaving without saying goodbye. Her love of God is the only thing that can stop her from prioritising the children, as soon as it challenges her religion.

Captain Georg von Trapp → the Captain is a reserved and powerful character, his thoughts and emotions are closed off after his wife's death, he loved her truly, his thoughts on politics are clear and outspoken, he hates the Nazi Party and wants nothing to do with them, he acts this through fleeing Austria and ending his engagement due to how strongly he feels on this. It is revealed he loves Maria through his children. He could never express such an emotion, he is emotionally repressive. He commands his family like a navy, and he is uncomfortable with sensitivity and expression. He transforms with Maria's presence to become more comfortable.

Analysis Questions Continued:

4. Continued:

Liesl → Liesl is in between childhood and adulthood, having no maternal figure in her life after her mother's death. She contains her thoughts of grief for her mother and how her father used to be, she prioritises her siblings like Maria does, ensuring they are okay. She is experiencing love for the first time and acts accordingly, sneaking around. Her thoughts and actions soon return to her family after Rolf's betrayal by joining the Nazis. Liesl wants to be treated like an adult seeing as she's being made to act like one by parenting her siblings.

Max → A conflicting character, claims to disagree with the Nazi Party and yet wants to have a good relationship and reputation with them. He values his position in society so much so that he would sacrifice his moral integrity easily to keep what he has. He is passionate about music through his work in the ministry towards this. He uses his position to help the family escape, so although his own morals can be overridden for the Nazis, he would never endanger his family.

Elsa → similar thoughts and actions to Max, her priorities are on her business and status in society, she wants to keep this no matter the cost and so is okay with playing along with the Nazi Party. She ends her engagement in order to protect this. Her thoughts are centred on self preservation.

4. Continued:

The Children → the children are confused and wish only to have fun in their childhood. They want their father to be happy with Maria and not with Elsa. They want a mother and father again, and don't want Maria to leave. They misbehave when she isn't there. They misbehave to seek attention from their father.

Rolf → falls in love with Liesl? Wants to be a strong figure in her life and protect her but leaves her very easily. He is on a search for power, he finds this by joining the Nazi Party, finding small power rushes in the uniform and fear he inflicts on others.

House Keepers → reminisce over the Captain's previous nature before his wife's death, supportive of the Nazi Party and hide this from the Captain so they can keep their jobs.

The Nazis → once the Anschluss has happened, they want everyone to display flags and comply. They want the Captain in their navy to force the support of Austria. They see all small things as a power move.

5. What is the complication? Drama?

There are two complications, one is halfway through the play when it is revealed Maria and the Captain have feelings for each other. But one is engaged and the other is a postulant who wants only God. This tears apart the stability of the family as both reject their feelings and flee. The second complication is in the rise of the Nazi Party and the Captain's rejection of them and determination to escape them.

Analysis Questions Continued:

6. What creates the tension?

The tension is created throughout the first act for both complications, the first being little moments shared between the Captain and Maria (such as the dance) which build up their chemistry and interest in each other, the second being the continuous building references to the Nazi Party and a possible Anschluss (at the dinner party, between Max and the Captain, Rolf).

7. What is the main question? (the main problem to be solved)

The main problem to be solved is how to escape the Nazi Party once they call the Captain to join their navy, the other problem before this is Maria's future as a nun (there is a whole song dedicated to solving her).

8. What is the main action? (the event that hooks the audience)

In my opinion, the event that hooks the audience is Maria's first meeting with the children, in which it is revealed how strict the Captain is, with Maria already standing up to him, and the introduction of music to their lives. Either this or when the Captain returns from Vienna and is confronted by Maria, who is fired, and then the emotion within the Captain hearing his children singing.

9. What is the cause of the action?

Maria is the cause of all action, her problems at the abbey cause them to send her to the villa, her attitude towards the children causes the change in the Captain and their family, her character causes the Captain to fall in love, her religion causes her to leave, her moral integrity causes her to return, after their marriage her integrity also causes them to flee and perform in the festival, her previous position causes them to hide in the abbey. She is the cause of all events directly related to the family (obviously excluding all Nazi party events, such as the Anschluss and the Captain's orders to join the navy)

10. What is the resulting action? (answer to the problem)

They problem of escaping the Nazis is solved through music, Maria's encouragement of performing and singing gives them the ability to buy more time through the festival, they are then able to use the safety of the abbey (which she has previously hidden in) to hide from the Nazis, finally using the safety of the mountains that she used to run away to at the beginning, to escape into Switzerland. These three things have been foreshadowed throughout the play. Mother Abbess herself helps solve both problems, she guides and mentors Maria, allowing her to accept her fate is not as a nun, helping them hide in the abbey whilst the Nazis search them.

Analysis Questions Continued:

11. What is the conclusion?
The play ends with the implication that the von Trapp family have begun their journey over the mountains in order to escape the Nazis, the nuns sing and pray for them, and Rolf has protected them despite having joined the SS. Max remains in Austria, as he wishes.

12. Who is the protagonist?
The protagonist is Maria. The story follows her purpose in life and her development and influence on the von Trapp family.

13. Who is the antagonist?
The antagonist is the Nazi Party, specifically Herr Zeller, the rising tension and influence of the Nazis in Austria, coming to a stop at the end of the play when they have achieved complete control and power over Austria. Herr Zeller specifically is representative of the cruel nature of the party.

14. Who is the most interesting character?
The most interesting character, in my opinion, is the Captain. I think this is because of how reserved he is and the subtle transformation we see within him, where he doesn't change who he is but it is only enhanced through a new comfortability with his vulnerability. I also find it interesting how he behaves and respects Maria despite the time period this is set in and his own position as a Captain, I like that it gives him no ego.

15. Where does the story take place?
The story takes place in Austria, Salzburg specifically.

My Trip to Salzburg!

Over the summer, I travelled to Salzburg and whilst I was there, I went on the Sound of Music tour, which was a great coincidence for this project. I got the chance to see the lake and gazebo, the inside of the church where Maria is married, Nonnberg Abbey, and the various places the children and Maria dance around. I also separately went to a puppet museum which had been involved in the puppetry of the movie. Some of my favourite facts I learnt whilst on the tour: the Captain was unable to rip the flag in half, so they had to cut it in two and then stitch it together to make it easier- you can see the actor searching for the seam when you rewatch the scene. I also found it interesting that the actor demanded he rewrite the role of the Captain or he wouldn't star in the movie.















Brief from the Carmarthen Youth Opera:

Carmarthen Youth Opera are a registered charity made up of volunteers. This is their fourth year working with UWTSD students. I had the opportunity to watch last years production of Charlie and the Chocolate Factory. I thought both the production elements and the performances were incredible and it was a lot of fun to watch.

There are currently around 65 cast members for The Sound of Music, ranging in ages from 7 to 25.
There will be 6 shows: one on Wednesday 18th February, two on Thursday 19th, one on Friday 20th, and two on Saturday the 21st.
If you want to work on the show you are required to have a DBS check.
Their get-in will be either Monday the 9th of February or Tuesday the 10th, our get-in will be Wednesday the 11th of February, times are TBC.
Minimum of £2,000 budget on the set only, scenic art and modelmaking can be included in a separate budget. Maximum budget will be £4,000 for the set only.

Carmarthen Youth Opera would like us to create a bridge that people will walk over, trees that children can carry and hold easily, the gazebo, and Nazi banners for the concert hall at the end of the play.

I chose to be part of the group who builds the Gazebo, along with Alice, Ant, Alaya, and Sarah. I will also be working on the trees and the banners if needed.

Meeting with the Production Manager:

We met with the Production Manager and chairmen of the board, Mike Rogers, to discuss the specifics of our brief. Visuals of the higher scenery such as the villa and cloths will be sent to us. The villa remains onstage the whole time and part of the villa rotates to show the interior.

The Gazebo: used in Act 1 Scene 6 (Liesl and Rolf) and maybe Act 2 Scene 1 (Captain and Maria). It needs to be taken apart for storage and easy to assemble as it may be built around characters live onstage. Maybe in 3 parts with 3 benches, needs to be robust enough for actor to dance on benches. Likely to be kept Stage Left, could include well-kept foliage or vines on the gazebo so that it's not plain white.

The Bridge: used in an extra scene added between Act 1 Scene 4 and 5, the bridge will have 2 people standing on it at a time (2 adults, the rest children), structurally timber and clad in maybe polystyrene or vacuum-form. Maybe 2 feet wide and 12 feet long (could be 3 parts that slot together). Aesthetically it is a bridge going over a stream out in the wild (so likely to be stone covered in moss)

The Trees: used in Act 1 Scene 2, need 6 Birch trees, with the branches visible at the top. Not taller than 6 feet. Must be light enough for children to carry and hold onstage, should maybe have a base so they can be rested on the ground.

The Flags/Banners: towards end of the play in the concert hall scene, downstage, 3 required (one centre, two either side). A tearable one may be needed

Some scene changes may be in blackout. Create 2-3 pitches for each element to present to the company. Along with sending weekly progress reports with images.

Research Phase: Gazebos

History of Gazebos:

Gazebos faded in the 1800s as porches became more popular to build around your house, they returned in the 1930s as a status symbol and a peaceful retreat away from the home. It is probable that the von Trapp family had one in their garden as both a symbol of their wealth and position in society, as well as to be part of a rising trend in architecture. (*Schutz, Year Unknown)* and (*Kaptol, Year Unknown)*

→ Usually octagonal or round

→ In the 1930s they would have likely still been in the Victorian Style

→ In the 18th and 19th century Gazebos and Pavilions were built all over Europe

→ Gazebos began in Ancient Egypt as a mini temple to the Gods. In Neoclassicism (18th to 19th century) they became less religious and seen as more of a luxury/peaceful retreat

(Gaia Ferro Forgiato, Year Unknown) and (*Mosquito Curtains, 2019)*

<u>Schulgarten Kagran, Vienna, Austria, 1873</u>

→

This Gazebo is appropriate for the time period and location. It is layered, like a castle in its imagery, and quite whimsical.



(Tucak, 2022) →

Features:

→ blending Victorian ornate detail with modern simplicity (maybe Art Deco also)

→ latticework

→ slender columns

→ simple canopies

→ curved arches

→ not usually white as they were designed to blend with nature

Research Phase: Flowers

Flowering Vines to Wrap around the Gazebo:
Flowering Vines native to Austria:
(Easyscape, Year Unknown)
Common Periwinkle, Alpine Clematis, Climbing Nightshade
→ I think the purple flowers would go nicely if we created a white Gazebo similar to the movie's style, as they would stand out to the audience



Alpine Clematis



Common Periwinkle

(Easyscape, Year Unknown) →

Climbing Nightshade →



(Verena, Year Unknown)



Edelweiss:
Edelweiss → a rare, fuzzy, and white flower from the Daisy family *(Cambridge University, Year Unknown)*.
They thrive in the alps and mountains and are a protected flower in Salzburg and so can not be picked. Typically, blooming late Spring to Summer (ideal for the time play is set). It is possible to grow Edelweiss in your garden, but it requires a rocky soil.
→ these are <u>not</u> vine flowers and so wouldn't be able to be used on the gazebo, but could be a nice detail somewhere else, like the bridge.
(Taf, 2005) and *(Verena, Year Unknown)*

Research Phase: Gazebos in the Film and Various Adaptations

Image is a screenshot of the show from BBC iPlayer, taken by Annie Picton.

Strictly Come Dancing Season 23 Week 3
→



Gazebo from the movie: *(Dancin' Dan, 2015)*
→ Glass windows in all of the walls
→ White frame walls, curved window frame design
→ double doors that open outwards
→ Black roof
→ Curved benches around the sides

Classic nostalgic imagery of the movie's design. The interior dance shots were filmed in a studio, where they built a larger replica of the gazebo *(Amish Country Gazebos, Year Unknown)*, meaning this design is unrealistic for the choreography the company needs to achieve.



←*(WeTours, Year Unknown)* *(Dancin' Dan, 2015)*



Recreation of the 16 going on 17 dance in the Gazebo. These sets on are designed by Patrick Doherty and built by EC Creative Services. Keeping the same white and wooden design but abstracting it so that the walls do not join, allowing the space needed for the dance. *(EC Creative Services, 2025)*

Research Phase: Gazebos in the Film and Various Adaptations

Gazebos in Plays:

Ben Davis (2024) → didn't build the Gazebo, had trees but the production was done in an abstracted style
(Davis, 2024)

(Davis, 2024)





(Hahn, 2024)

Nick Hahn (2024) production →

Nick Hahn discusses the production of The Sound of Music he worked on in 2024, having little to no storage space in the wings, most of the set had to be broken down into smaller chunks in order to fit everything- similar to the problem we have at The Lyric. His solution for the gazebo was to have a set of hexagonal stairs which are reused in multiple scenes, and have the roof of the gazebo flown in. (*Hahn, 2024)*

You can see in the images the 3D rendering of the gazebo and an image of final product. I really dislike this design, although it solves storage issues, I feel that it carries no romance or atmosphere to the scene, and if anything, almost distracts the audience from the moment.



Research Phase: Building Techniques

Coffin Locks:

(Control Booth, 2007)

Control Booth is a forum I found where people in the industry discuss methods of creating certain set elements. I found some great threads on people discussing methods of locking pieces of scenery together, as well as locking pieces of scenery to the floor.

User 'Gafftaper' suggested Coffin Locks as a tool to lock two pieces of scenery together.

(Musson Theatrical, Year Unknown)



Coffin Locks *(Musson Theatrical, Year Unknown)*

→ they lock scenery to each other and are heavy duty and secure but easy to connect. Coffin Locks are used with hardwood.

One bonus feature is that they are concealed within scenery, so are invisible to the audience.

→ ideal for connecting pieces of the gazebo onstage around the actors

After discussing Coffin Locks with Dave, I learnt that they are difficult to build as they need to be perfectly aligned in order to lock, with the workshop's uneven floor and The Lyric's slightly raked stage, they would be difficult.

LINK:

https://youtu.be/CRfUVeClwrY?si=-ufNYDUxdShTklBt

The video above shows a Coffin Lock, being used to connect scenery quickly!

→ Starting at 0.38

(Denver Centre for the Performing Arts, 2024)



Research Phase: Building Techniques

Wagon Brakes:

The Control Booth Forum *(Control Booth, 2007)* and Austin Oliver's post (*Oliver, 2023)* on Facebook led me to another Theatre Forum discussing Wagon Brakes.

Heavy duty wagon brake from Rose Brand. →

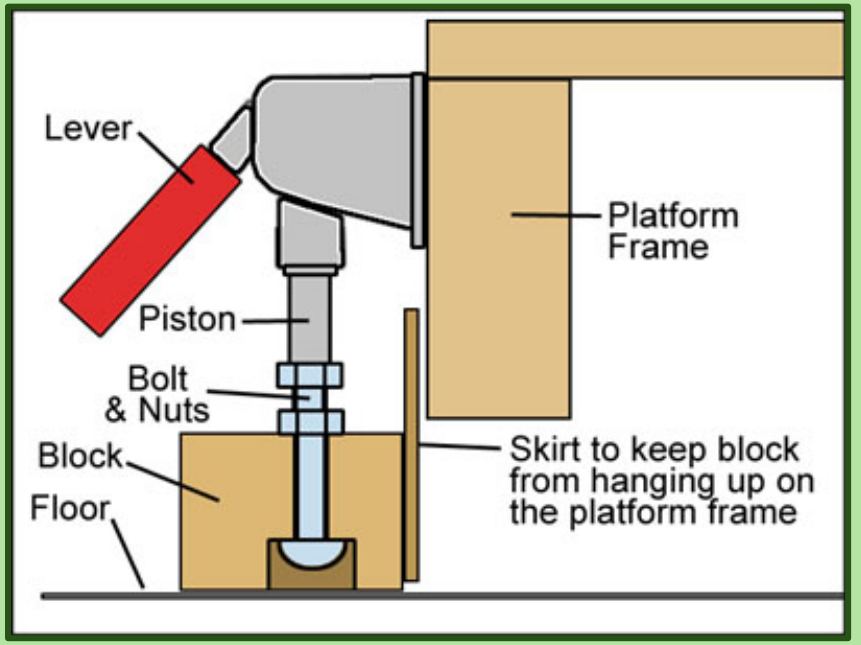
(Rose Brand, Year Unknown) →



Looking through forums, many people recommend wagon brakes over normal caster wheel brakes, as they're more secure. There were many complaints about caster wheel brakes being unreliable, and with an actor jumping and dancing on the Gazebo, I wanted to find the most reliable and safe method. There are Standard Wagon Brakes and Heavy-Duty Wagon Brakes, Heavy Duty is recommended for set pieces that will have actors moving on it.
User 'David McCall' recommends a solution for a common problem he found with wagon brakes. He found they can sometimes be weak, so he suggests attaching a block to the bolt which will supposedly help prevent the set moving when the brake is down. He also recommends attaching the brakes to the same side to create further resistance. *(McCall, 2010)*

Image of David McCall's design solution.

(McCall, 2010) →



Research Phase: Building Techniques

Air Casters:

Another option, as wagon brakes aren't always considered the most secure, is air casters which rely on compressed air. Justin Kirkpatrick built a platform that moved on air casters, which required an actor to dance on top of it when stationary *(Kirkpatrick, 2020)*. He created this by sandwiching PVC pipes, squares, and caster discs and plates with pneumatic fittings. *(Zoe, 2025)*
Pneumatic fittings are connectors that let you join tubes in a system running on compressed air.
His structure meant that when air is pushed through the pneumatic fittings on a caster plate, the rubber inflates and pushes the caster disc down which lifts the set onto the wheels. Meaning, when stationary, the set is sat on the floor. He welded the air caster wheels to his frame using steel and attached an air tank to the bottom. *(Kirkpatrick, 2020)*
(Video: https://youtu.be/L6sbOjcZUyI)





←*(Kirkpatrick, 2020)*



(QSD, Year Unknown)

→ his notes are, ensure you have sealed all the gaps so that no air escapes
→ after watching the video, I feel like this will be too loud but I'm not sure whether that is background noise or if it's the air tank.
→ I also feel like this would be a very expensive process including a lot of excess steps and parts that would be unnecessary.

Research Phase: Building Techniques

Weight Bearing on Benches:

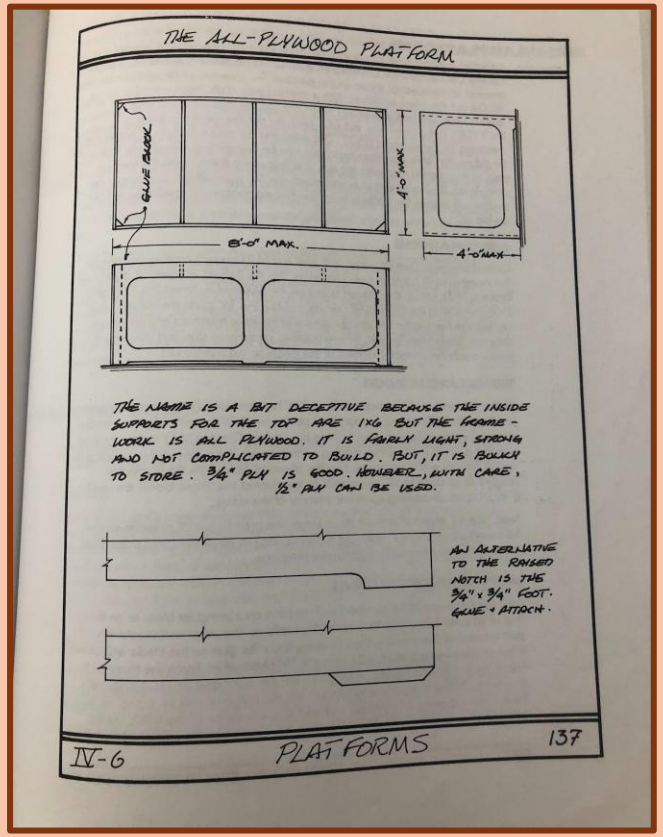
I researched platforms made out of wood, in the scenario that our benches would also be made of wood.

Platforms

Max platform length is 8 feet (they go up in 2 feet increments, so can be 2 feet long, 4 feet long, 6 feet long, and 8 feet long)
Max platform width is 4 feet (they go up in 1 feet increments, so can be 1 foot wide, 2, feet wide, 3 feet wide, and 4 feet wide)
→ this compliments the dimensions of a sheet of plywood being 4x8 feet
(Raoul, 1990, p. 129)

Rigid Platforms: these are boxes with solid sides, inner supports, and non-removable tops. Although our benches will have non-removable tops, I'm uncertain they would be a solid box with sides. These are made of a timber frame and plywood tops. The most common thickness is a 19mm plywood top (anything less leads to a bend)
→ suggests the framing should be free of knots
(Raoul, 1990, p. 132)

(Raoul, 1990, Image IV-6, p. 137) →



You need a cross brace every 2 feet, any farther apart and it can 'give' or 'spring'.
All Plywood Platforms:
(applicable if it doesn't need to be more than 4 feet high)
Use 19mm plywood frames and raised notches at the bottom to prevent rocking. The weight of these platforms is removed by cutting lightening holes.
(Raoul, 1990, p. 133)

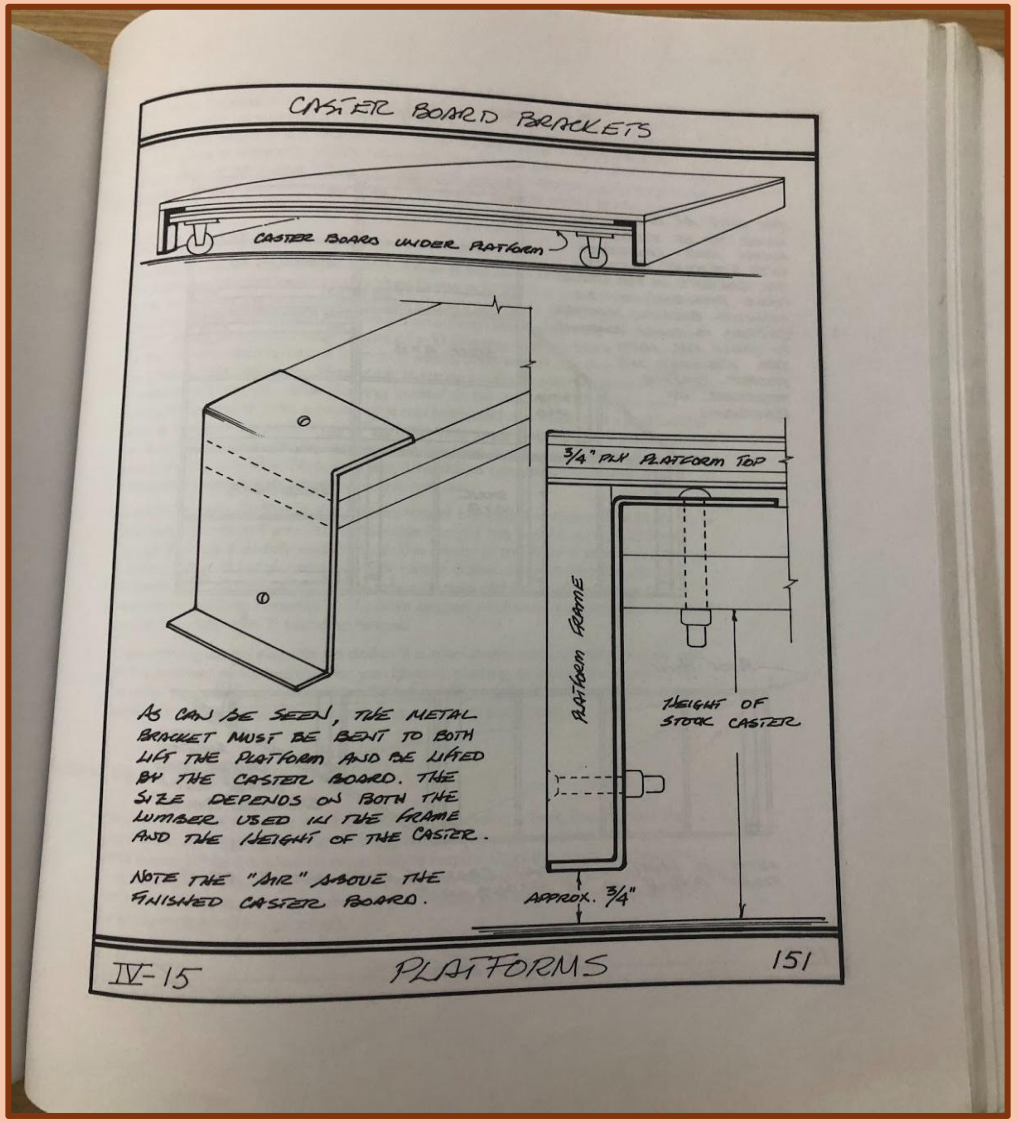
Curved platforms → if our benches curve with the Gazebo
→ recommend triangular blocks in the corners as this strengthens the corners.
(Raoul, 1990, p. 138)

Research Phase: Building Techniques

Weight Bearing Benches and Caster Wheels:

→ We can deaden the sound of people walking on the platform by attaching material to the underside of the platform, this removes the hollow sound that might be created when Liesl steps on them
→ never step on the bottom of the platform when it's flipped over, only walk on the frame, as when in this position the top can easily come unattached
→ when legs reach a height of 12 feet they need to be cross-braced before they can be flipped over.
(Raoul, 1990, p. 143)

Caster wheels can be hidden. They are attached with caster boards and brackets.
The frame of the platform sits on the bracket, and the bracket sits on the caster board. This minimises the stress placed on the wood and the bolts.
(Raoul, 1990, p. 150)

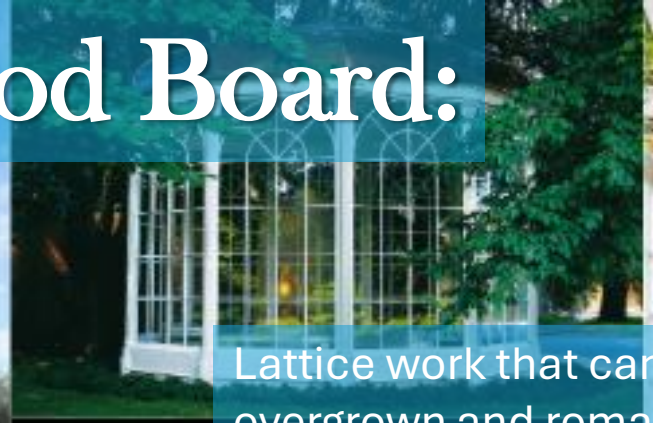


(Raoul, 1990, Image IV-15, p. 151)

My Gazebo Mood Board:



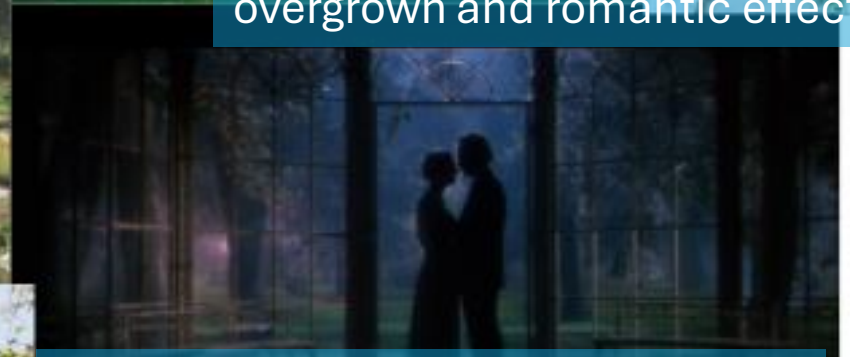
Links to typical Austrian wooden Gazebos





Lattice work that can be covered in vines for an overgrown and romantic effect.









Inspo. from the movie for nostalgic effect.





Option for a more refined and well-groomed gazebo

Tucak (2022), WeTours (Year Unknown), Alamy (Year Unknown, a), Danda Productions (1930), Alamy (Year Unknown, b), Dancin' Dan (2015), Evans (1930-31), Lasercutwraps Shop (Year Unknown) and Hushin (2017)

Research Phase: Birch Trees

Birch Trees:

(Britannica Editors, 2025)



Thin-leaved hardwood trees, usually in the Northern Hemisphere.
The bark is silver/grey, but you can also get white, black, and yellow bark birch trees.
The leaves are singly/doubly serrate, feather-veined, petiolate, stipulate.
The bark is marked with long horizontal lenticels and separates into papery plates. *(Britannica Editors, 2025)*
The spread of the leaves can be around 5m. *(Fisher, 2024)*

Birches in Austria:

Silver Birch Trees are listed in the top 20 most common trees in Austria. *(Picture This, Year Unknown, c)*
They are commercially significant as there are lots of uses for the wood due to its density.
They thrive in higher altitudes. *(Fisher, 2024)*
→ they appear in Act 1 Scene 2 on the mountainside, making these trees an accurate choice for the location
The thickness of Birch Trees in Austria ranges from 1.37m to 3.99m, I would say the most common thickness is around 2m, from the data I've found. *(Monumental Trees, Year Unknown)*



(Royal Botanic Gardens, Year Unknown)

Research Phase: Building Techniques



Methods of Making Lightweight and Moveable Trees *(McDowell, 2024)*

(McDowell, 2024) →

Amanda Baker → suggested using cardboard and dowels, with wire wrapped around them, I think this would create the wrong texture and visual effect for Birch Trees.





Dowels.

(Hobbycraft, Year Unknown)

←*(McDowell, 2024)*

Richard Miller *(McDowell, 2024)* → Sono tubes, these are made of layered cardboard and finished with wax, they're traditionally used as a mould to create concrete structures such as columns. They come in a variety of diameters (the smallest being 6 inches) and heights, including 6 feet *(Industrial Quick Search, Year Unknown).* These seem ideal as they're used with concrete so are more sturdy than usual cardboard. Perhaps expanding foam used to coat these would be more secure but lighter than a PVC tube. Sono tubes would be a more expensive option than PVC tubes *(Smith, Year Unknown)* and *(Plastic Pipe Shop, Year Unknown).*

Cardboard and Expanding Foam:

Although cardboard would make a light-weight centre for children to hold, the cardboard is not strong enough to hold expanding foam, it will cause it to warp as there's too much moisture. Light plastic tubes such as PVC are strong enough to hold expanding foam. *(Redragoon, 2017)* and *(Temporary_Issue1902, 2023)*

My Birch Tree Mood Board:



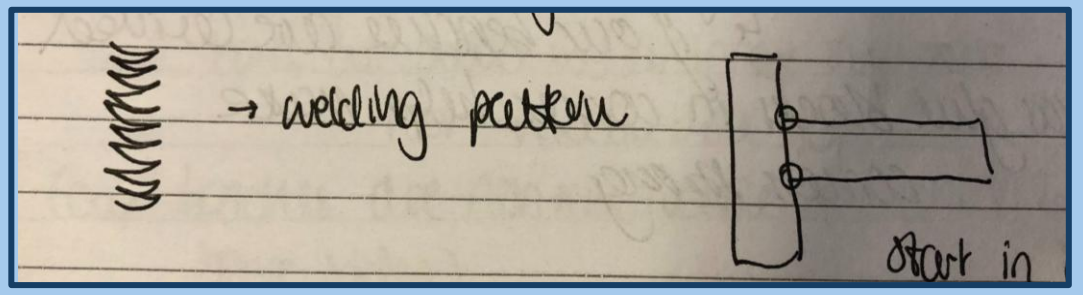
Horizontal lenticels in the scenic art of the bark texture

Design solution for branches with leaves that might get in the way → leaves within knots of the bark.

Contrast of the white and dark grey/black bark sections, an iconic symbol of silver birch

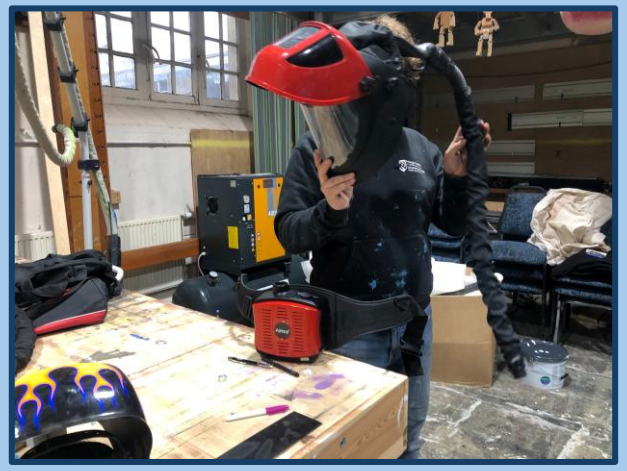
Britannica Editors (2025), Royal Botanic Gardens (Year Unknown), First Nature (Year Unknown), The Heart of the England Forest (Year Unknown), iStock (Year Unknown), Dartmoor Tree Surgeons Ltd. (2023), Stock Cake (Year Unknown), Daley (2016) and Royal Botanic Gardens (Year Unknown).

Welding



What is Welding?

Metal inert gas welding (MIG welding):
Welding melts and joins pieces of metal together.
MIG welding specifically, using a lot of electricity, creates an electrical arc between the electrode wire and the metal that's being welded. The arc melts the electrode wire and creates the weld. This then cools and solidifies to create a strong metal connection. *(R-Tech, Year Unknown)*.



Safety:

You can get UV burns from the light created, so you must keep all of your skin covered, wearing all of the appropriate PPE. Such as, steel toe capped boots and air fed and ventilated masks which protect your eyes by automatically dimming and protect you from inhaling the toxic fumes that are given off. Never look at the light without your mask on.



Method and Technique:

When welding, you move slowly and close to the metal, without letting the tip of the gun touch (only the wire). You move in a side-to-side pattern, as seen in the image in the top right. Starting with two joins at the edge to secure it, checking if it's still square and then continuing. When doing long lines, you create connections at varying points starting from the outside working your way in, otherwise it will warp.



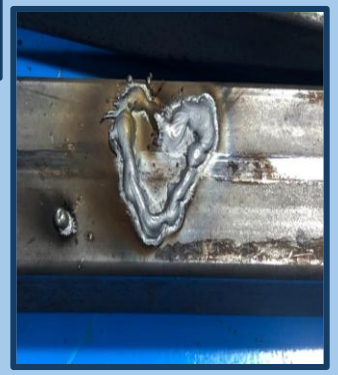


A MIG welder uses argon gas, which creates a safe environment for connection to form.
On the dials at the front you can control wire speed, like a pen controlling how much ink comes out. For thin metal you would reduce it and for thick metal you would increase it, thin metal is difficult to weld as it's easy to burn through. The other dial is for spot welding, it controls seconds. When using the gun, you can tell when the gas flow is good or bad, the top of the gun may need cleaning out, and the wire can be clipped. When you're welding it should make an electrical buzz sound, that's how you know it's penetrating the metal. Once two pieces of metal are joined together, the join is just as strong as the original separate pieces, making it technically one piece, the join is not a weak point.



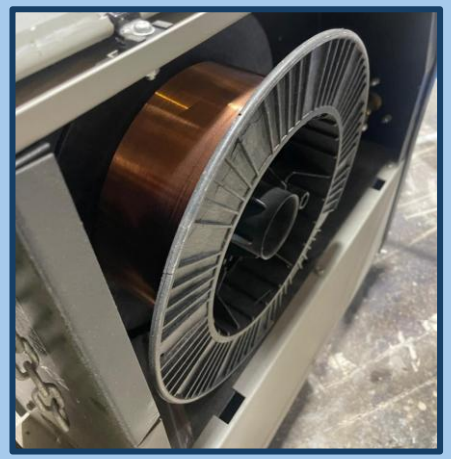












I found I had to move the gun a lot slower than expected, and to make sure the edge of it doesn't touch the metal or you get fused to the spot and can't continue- only the wire should touch the metal. It was quite difficult to see out of the masks, but you are able to adjust the shade, sensitivity, and delay settings on the inside of the eye shield. I really enjoyed welding. I found it really fun and rewarding. I would love to include welding in the Gazebo design to develop this skill but am aware that this would make it a lot heavier.

Research Phase: Material Discussions

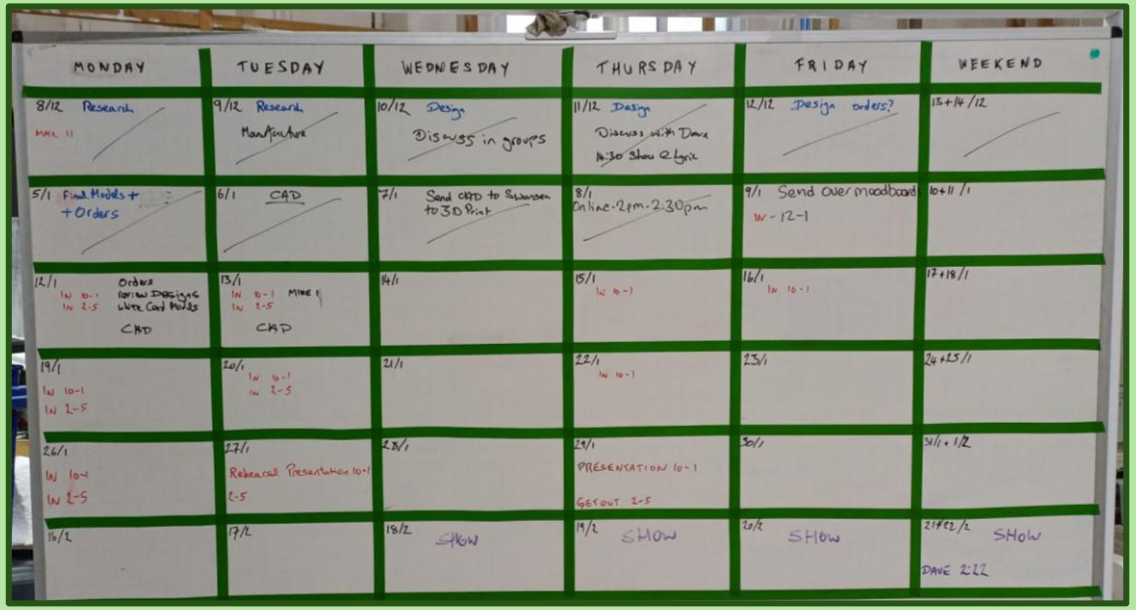
Gazebo:
Considering marbling effect on the benches and whether we want glass panes in the walls
Epsilon → cheaper version of Jesmonite, VOC free resin which is water-based so no PPE needed

Metal store .co.uk → good for metal orders
Flints → great for glues, paints, glazes, and primers
Black Country Metal Works → good for decorative legs (possibly for the benches)

Peter Evans Studio → good for decorative details (vacuum form)
Air dry sculpting is a possible option for these decorate elements on the Gazebo
Flame Proofing: Jesmonite is inherently flame retardant whilst resin is not
We can add things to the paint and glazes for the final coat in order to flame proof it, must make sure the room is warm enough to avoid blooming and ruining our final set piece, possibly using ROSCOs flame retardant

Flints book → glaze and varnish finder table, helpful to choose one based on your requirements
Discount Fabrics do a 50m roll of red cotton for around £168, would be cost effective for the banners

To the right is an image of the schedule overview we have for this production, with our deadline being the 11th of February. Having one shared schedule will be beneficial to planning and being more efficient, as well as knowing how the other groups are progressing.



Drawing References for Detail:



(Preethi, Year Unknown)

I used a variety of stone and marble gazebos, looking deeper into the carved details on marble benches as this was an important feature I wanted to include in the design. Whereas I mainly used the film's wooden gazebo as a reference for all wooden drawings. This was because I felt that if we chose wood, we should lean into the nostalgia.



(UFurnish, Year Unknown)

(WeTours, Year Unknown)



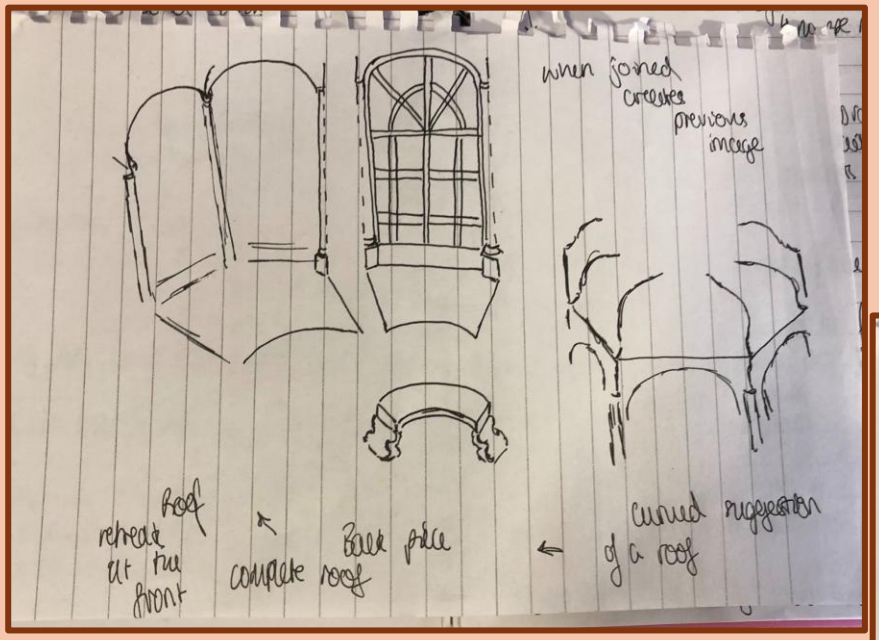


←(Trevi, Year Unknown)

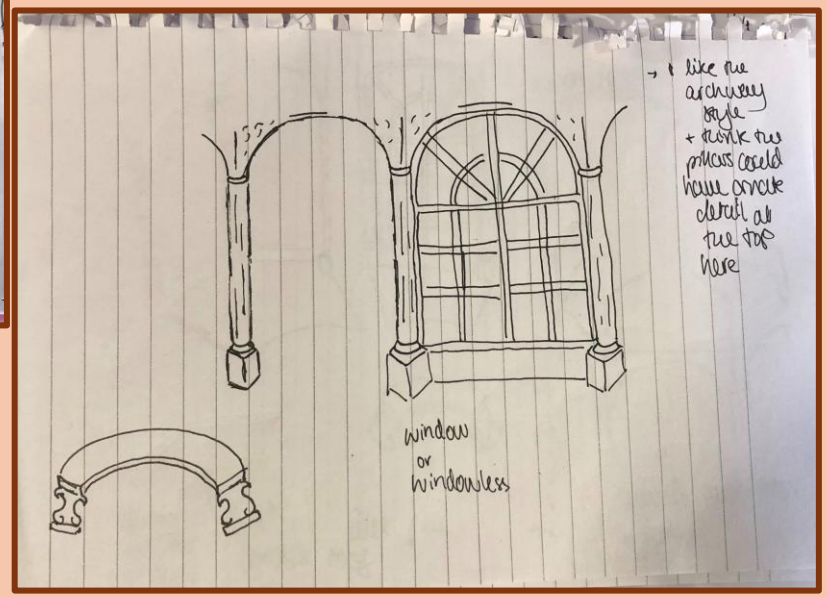
(YouFine, Year Unknown)

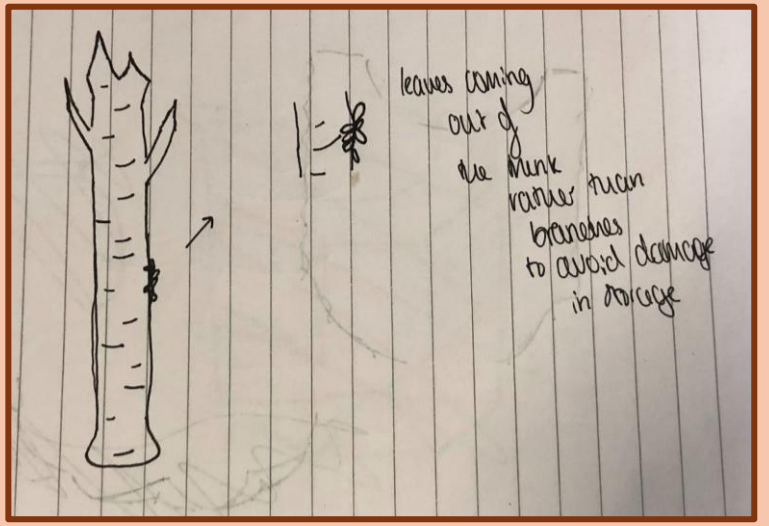


Initial Sketches



Do we want glass?
→ Columns and pillars in between the windows
→ Ornate marble design in the benches

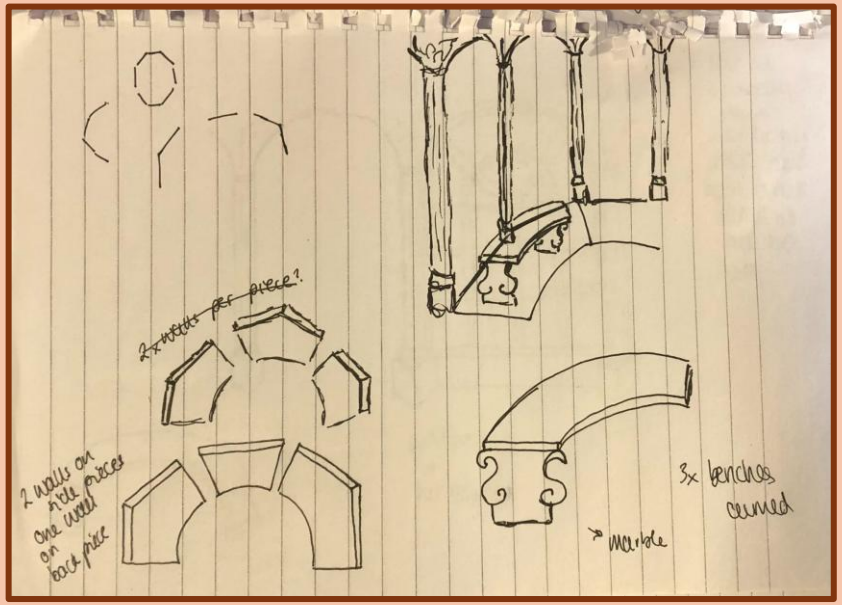




2 walls on the side pieces and 1 wall on the back piece, with 3 benches, creating half of an octagon.

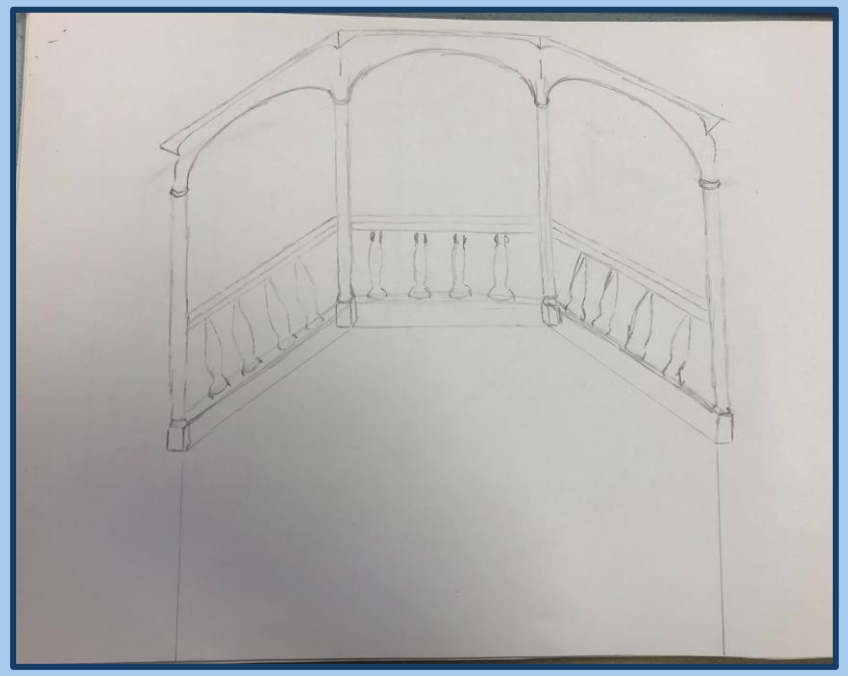
Octagonal or round? I like octagonal, as it makes the curve of the benches more interesting and might make more sense for it coming apart smoothly.
→ Curved suggestion of a roof, more complete at the back than the front?

I like the top of the columns forming the archway over the windows, I think these could include ornate detail and maybe even carvings of flowers if Edelweiss won't work in the Gazebo.

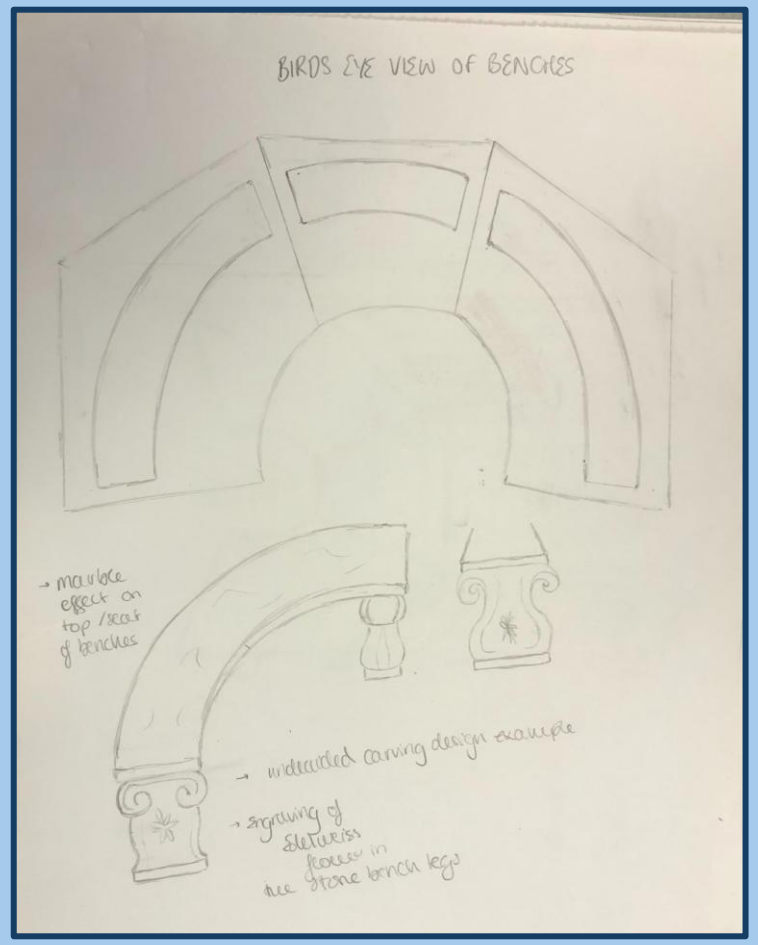


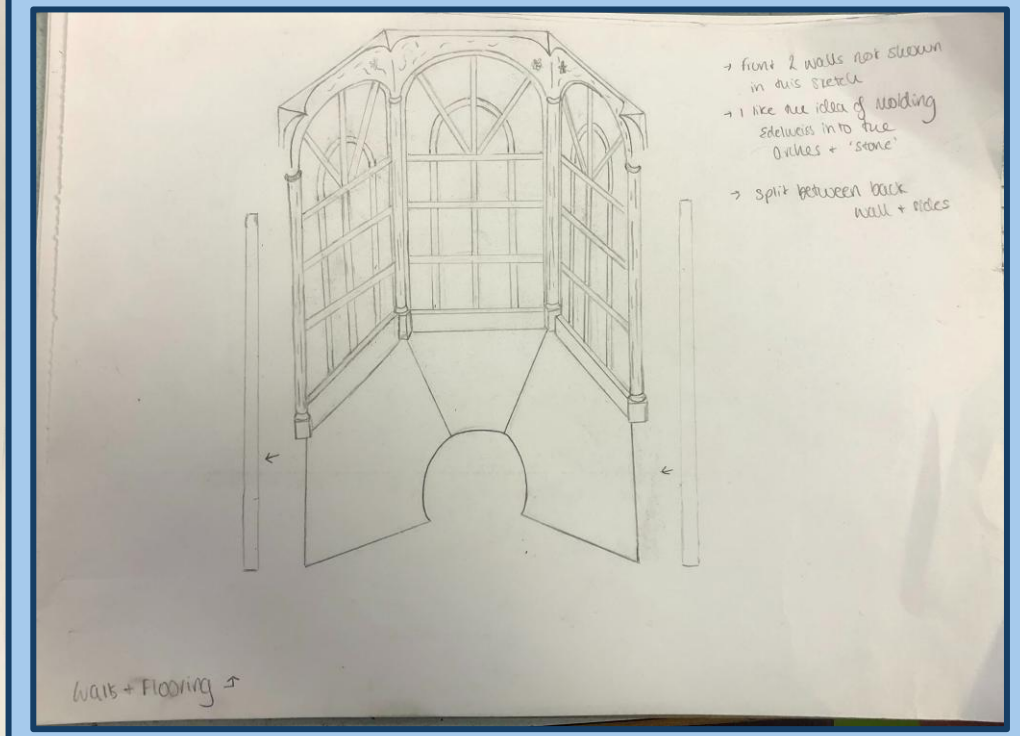
Refined Sketches

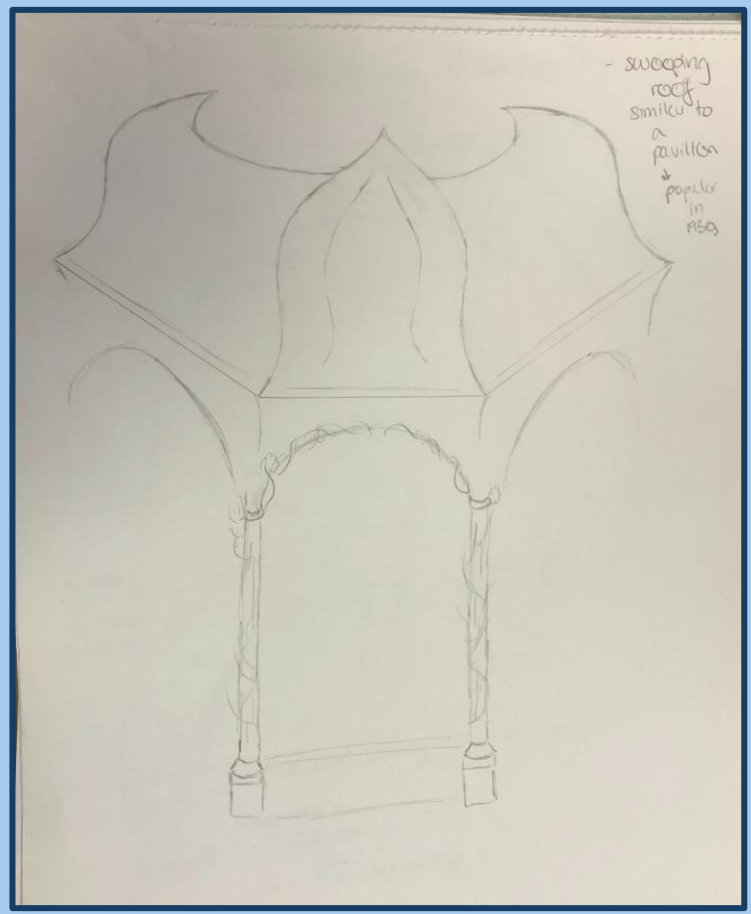
I think pillars would be great to wrap vines around, if we go for the stone version, I also prefer it separating into three parts rather than two.



I really like the sweeping roof, almost like a pavilion roof → I think it leans into the romantic and ornate style, and the curve makes it easier to imply so that you don't need complete coverage, meaning lights could be used through it.







Images of the Hired Set:







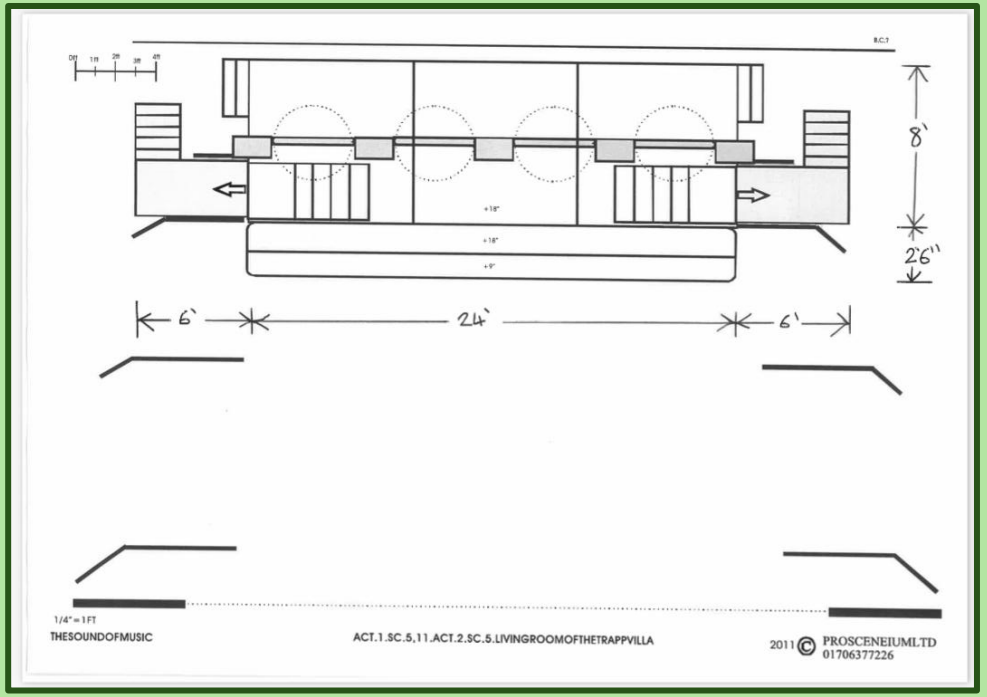


This is helpful design-wise as we can tie our designs into the stone style of the villa and compliment the colour palette, as well as decide on our dimensions according to the rough floor plan.



The style of the villa leans us more towards the stone gazebo.





The Production Manager Mike Rogers sent through images of the set The Lyric have hired from the company Proscenium, these being the mountain backdrop, villa backdrop and various villa set pieces (such as the stairs). He also sent reference images for the stone bridge and the Nazi banners, alongside some rough measurements of the stage in relation to where the hired set will be.

Refined Group Mood Boards



Although it would enable us to try welding in our design, the metal gazebo lacks the atmosphere we're looking for.



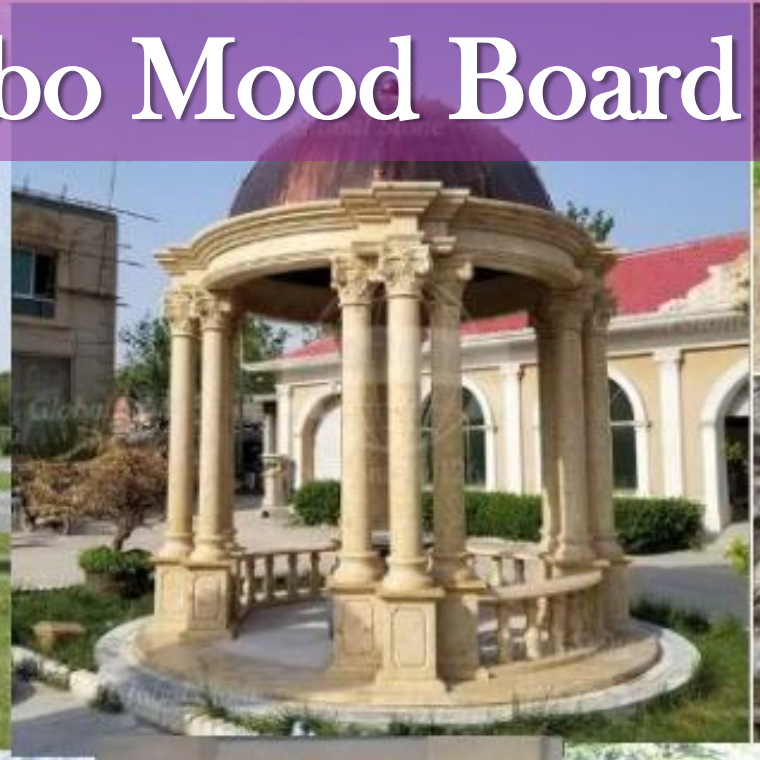
Our group prefers the stone or wood option, disliking the metal due to its visual simplicity and emotional vacancy.

After doing some research and creating our own sketches and mood boards, we decided to make three refined mood boards of our three design ideas, to present to and discuss with the Production Manager and the Director. The Stone mood board features stone carvings of flowers and curved marble benches, most stone gazebos are circular, so this option would be the curved semi-circle gazebo which separates into two. Whilst the Wood gazebo features wood carvings as well as plants and vines growing over it, giving a sense of decay and romance forgotten about, leaning towards a hexagonal shape which separates into three parts, with the option for glass or no glass.



Stone Gazebo Mood Board























Wood Gazebo Mood Board



















Metal Gazebo Mood Board


















Bridge Mood Board: Option 1



This mood board was created by the Bridge Group: Annie Picton, Anne Hyde, Mary Legg, and Charlie Field.

Bridge Mood Board: Option 2 Garden Bridge



This mood board was created by the Bridge Group: Annie Picton, Anne Hyde, Mary Legg, and Charlie Field.

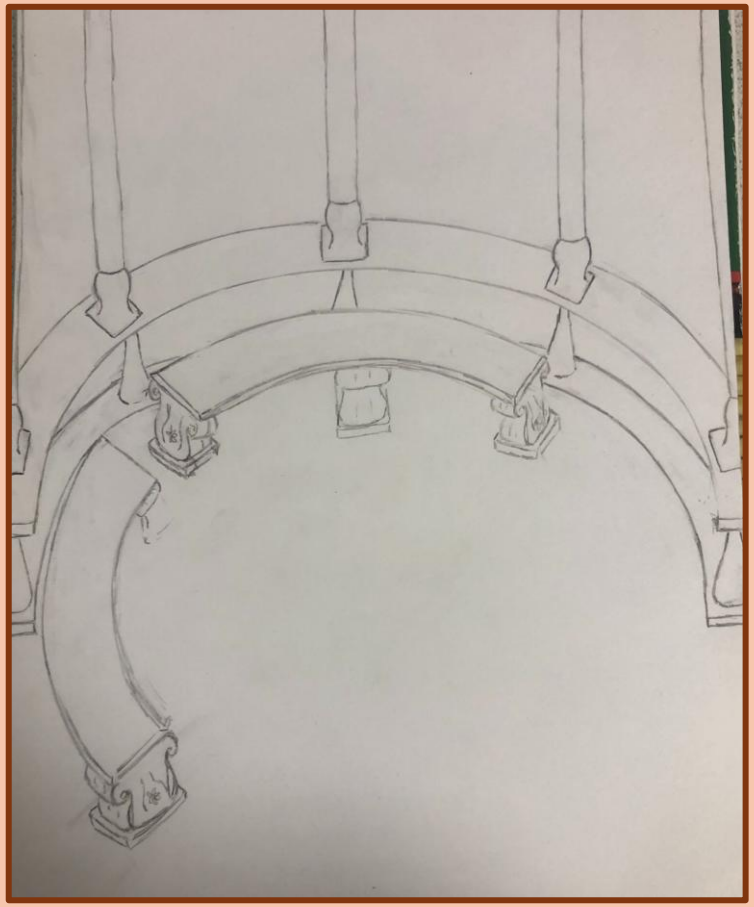
Bridge Mood Board: Option 2 Roman Bridge



This mood board was created by the Bridge Group: Annie Picton, Anne Hyde, Mary Legg, and Charlie Field.

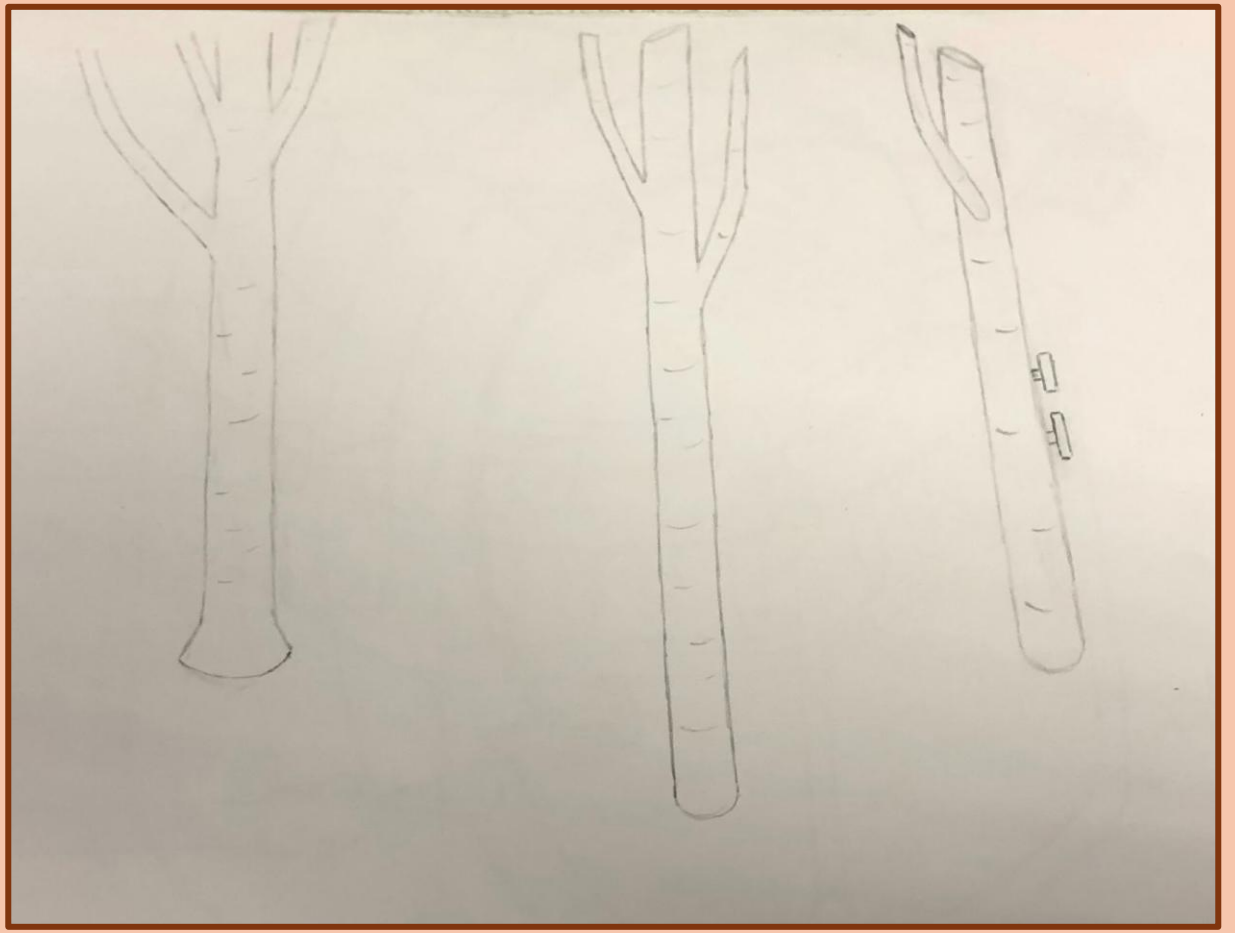
Post-Christmas: Preparing for the Meeting with the Director

As well as creating models to present to the director, we wanted to send ahead our mood boards and sketches of three design ideas for each set piece. Adding to my previous refined sketches, I completed another sketch of the stone gazebo and some sketches of the birch trees, including handles, as we didn't have any sketches for the trees yet. After we had compiled each groups mood boards and sketches, I moved onto making a 1:10 model of the stone gazebo.

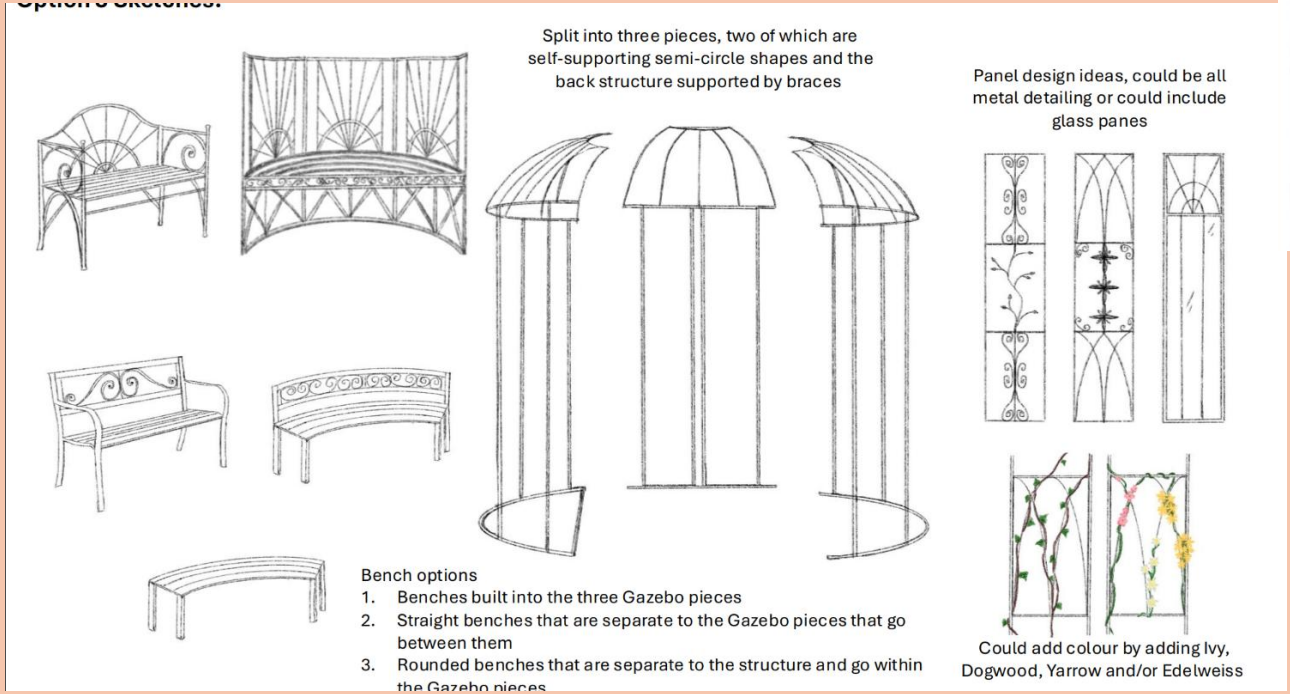


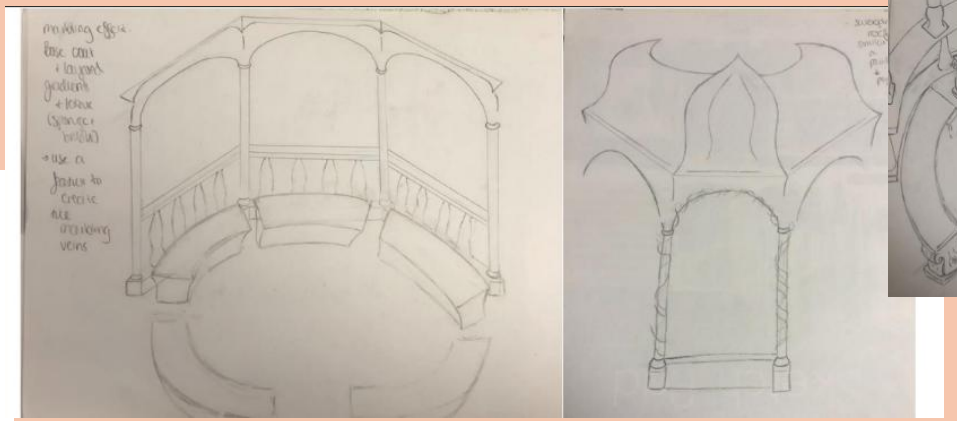
← This sketch was to refine the ideas we had on the structure, before building a model.

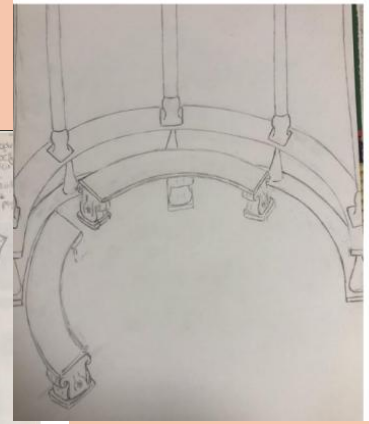
This sketch was to present two trees, one with a flared out base and one without, providing the option for the cast to rest them on the ground. With the branches cutting off at the top to help with storage. →



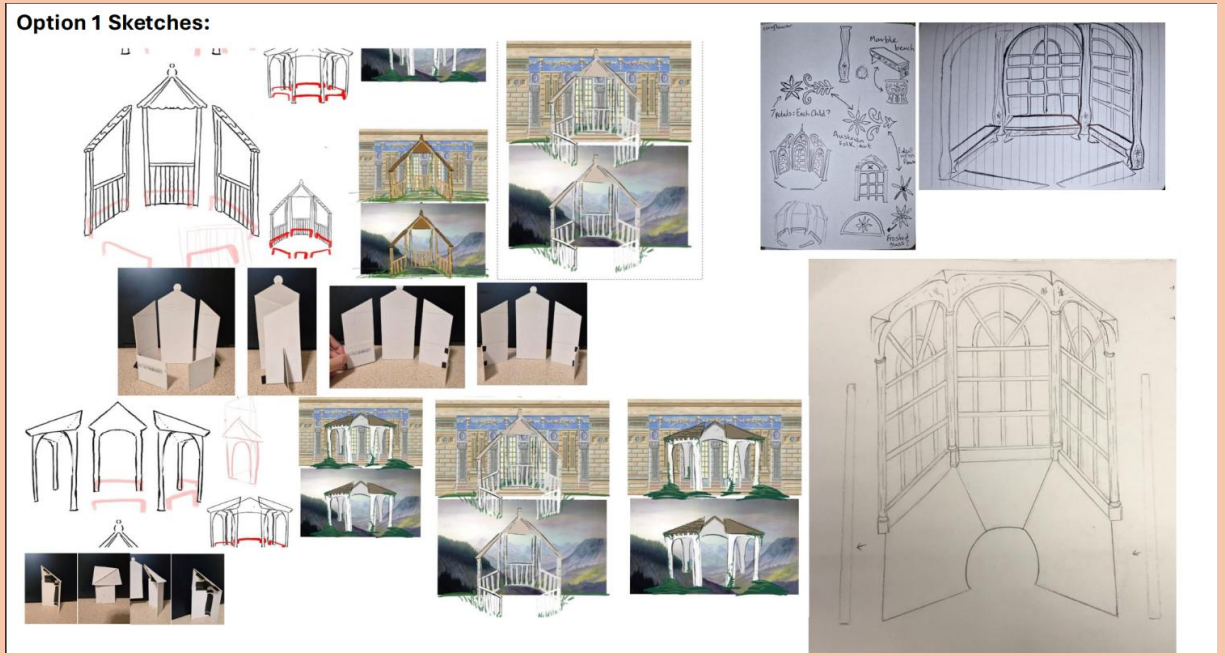
Compiled Design Ideas and Sketches sent to the Director Rhian







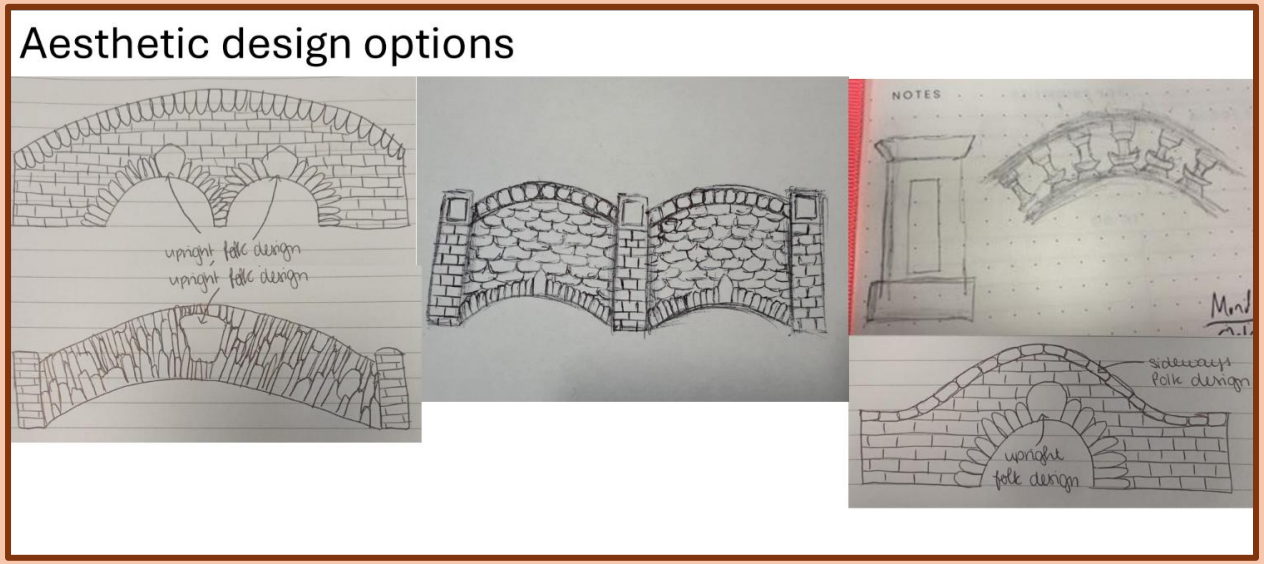
The metal gazebo featured Ant's digital drawings, whilst the wood gazebo was a combination of mine, Alaya's and Alice's drawings. The stone gazebo was my drawings.





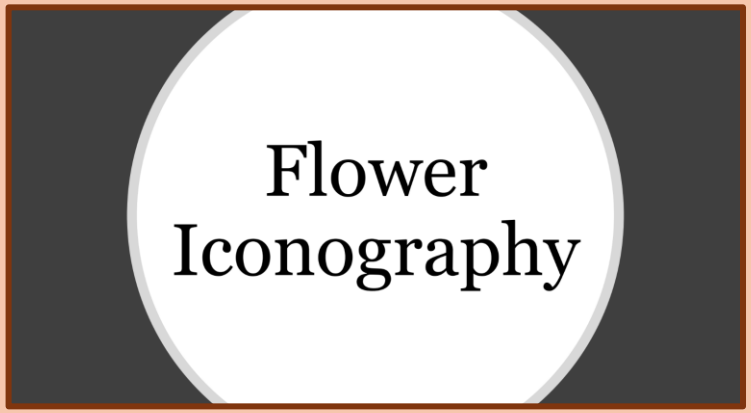
We used title cards to organise the slides and make them look cohesive as though they had come from one person.

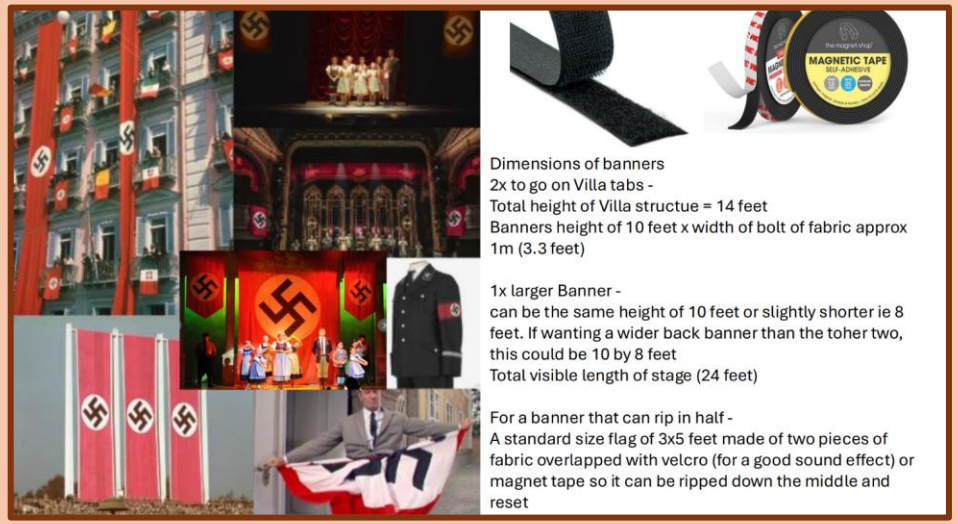
Compiled Design Ideas and Sketches sent to the Director Rhian



The Bridge group included options for flower iconography, presenting designs around folk flower iconography.



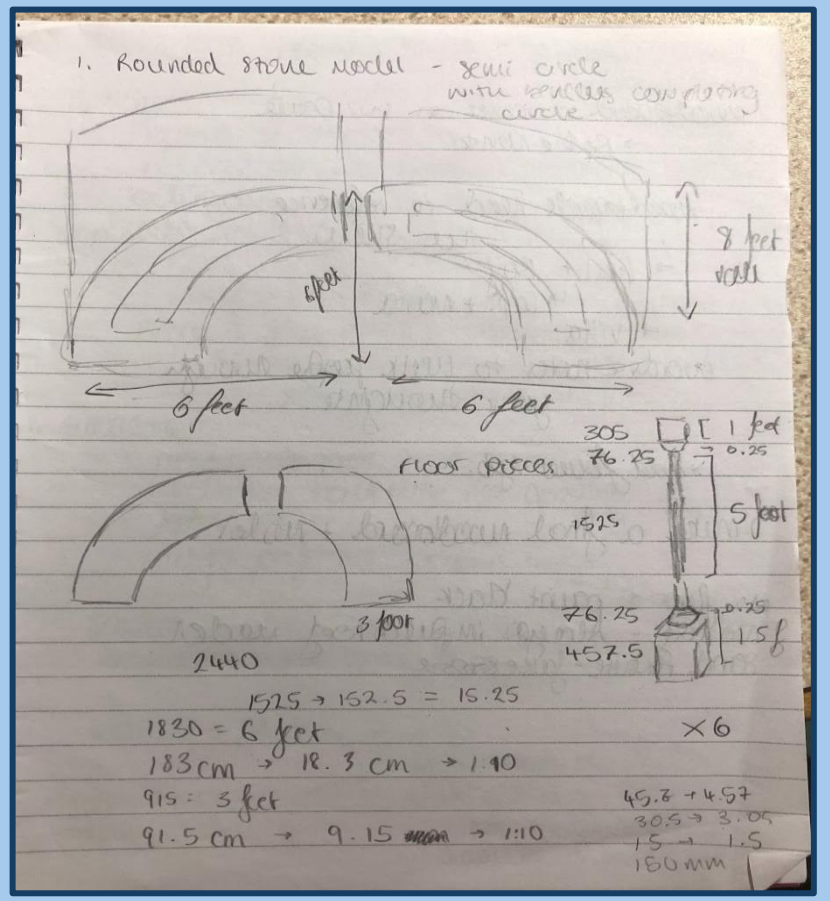


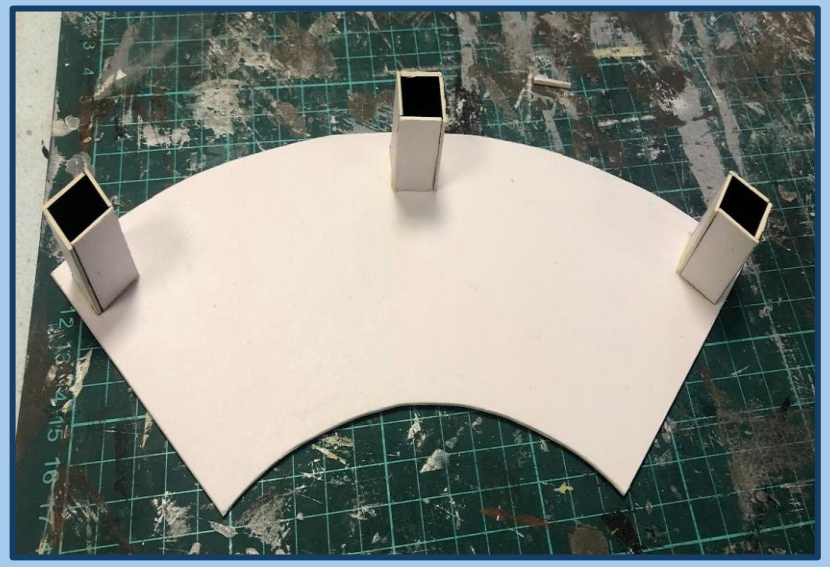


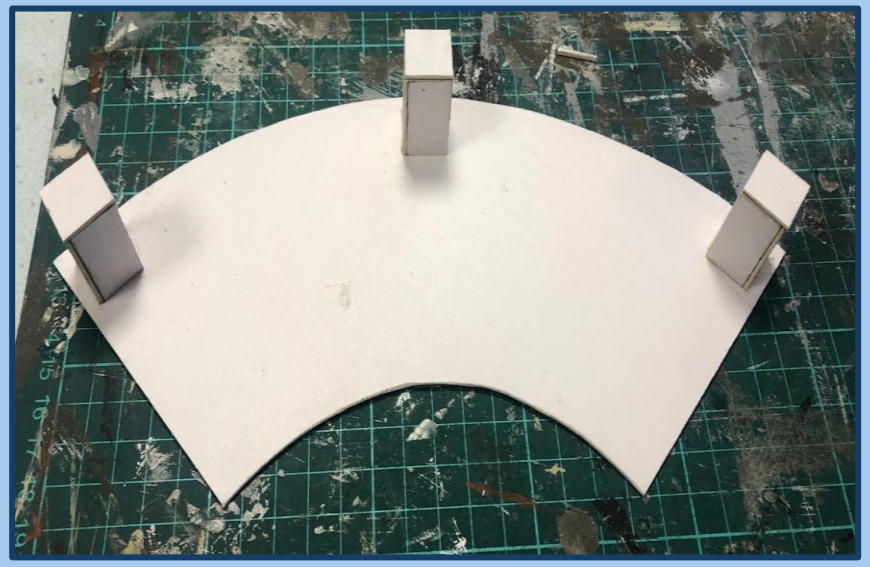
Alice worked on the slide for the Nazi banners, presenting both the reference image they sent us and her own preference of the long and thin banners, providing notes on dimensions to consider.
For the birch trees, we sent my mood board from earlier in my presentation, as we felt birch trees were a pretty standard design and all we needed to discuss was height and branches.

Building the Scale Model:

I chose to create the model for the Stone Gazebo, as this was my personal design preference, whilst Alaya worked on the model for the Wood Gazebo, as that was her design preference. I started by looking at the rough dimensions sent to us by the Production Manager and seeing that the width of the stage was about 24 feet, I decided to make the gazebo 12 feet wide so that it would sit perfectly in the centre. I looked into average Gazebo heights and chose to make mine 8 feet tall, sitting on the lower end of the height average, agreeing that Alaya's would be taller to provide two height options. We also decided that the Stone one would be a semi-circle separating into two parts, whilst Alaya's would be more angular, separating into three. This would give the director two design choices to physically play around with in order to decide.

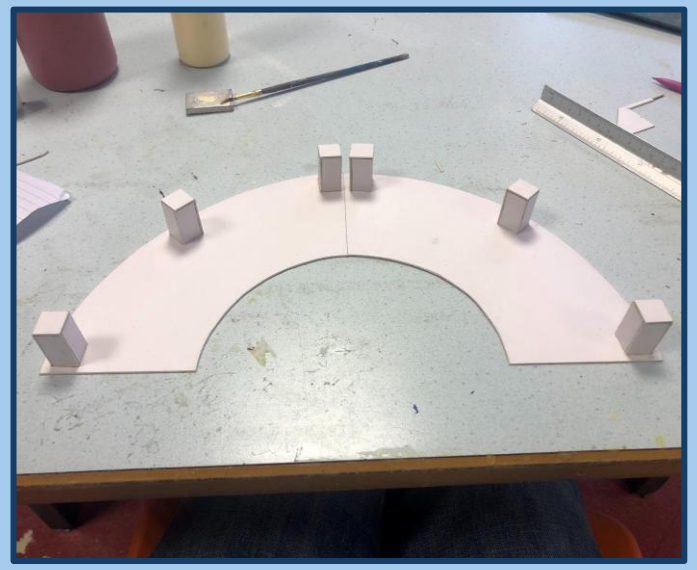






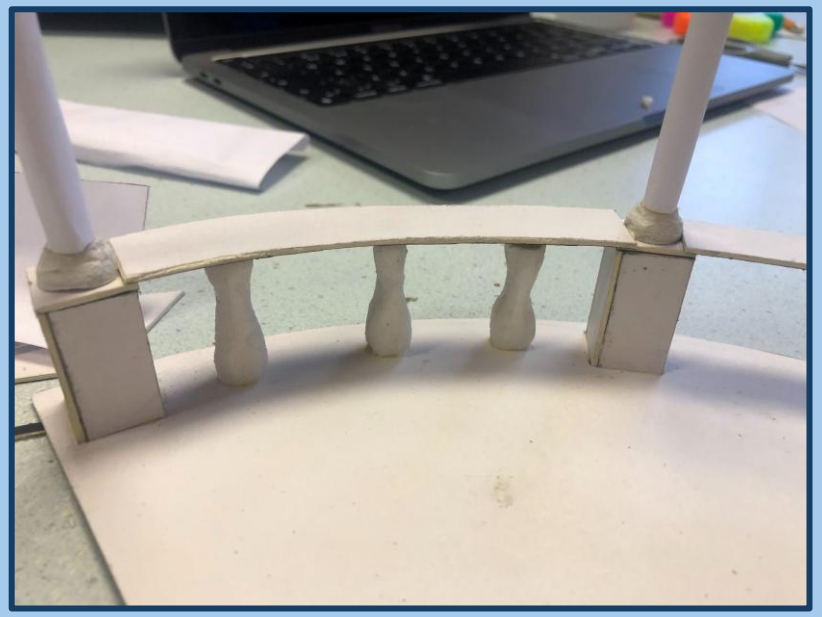
I chose to work in a 1:10 scale for this model because I felt that 1:25 would be too small to get an accurate feel for how big it would be in real life, alongside 1:10 being the standard scale when doing scenic art on models. As I intended to paint this, 1:10 seemed ideal.

Building the Scale Model:

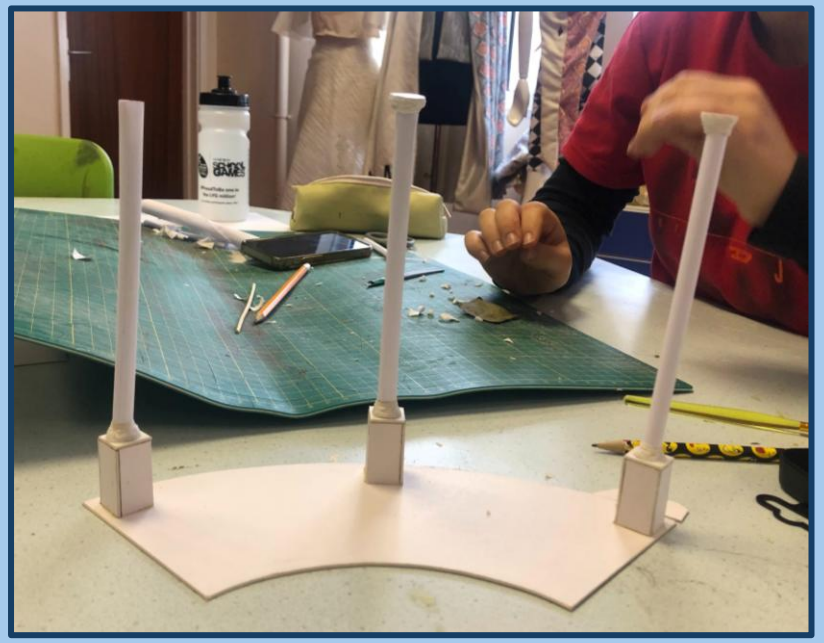




I started by drawing out a 6 feet square in 1:10 on paper, I then drew out an arch from corner to corner and measured 3 feet in from that to draw the next arch. After cutting this out, I could use it as a template for the mount board, and I soon had the base board that the gazebo would sit on. On the previous slide is a page of my dimensions, I split the pillars and bases to make up 8 feet. I then made 6 cubes for the base of the pillars. I decided to carve the smaller decorative pillars out of layered foam board and did the same for the cone-shaped bases and tops of the pillars. Alice worked on the model with me, creating the pillars out of rolled up pieces of paper glued together. I then put a wooden skewer into the foamboard which the paper pillar then sat around. Unfortunately, as I had been planning to make a roof for this model, and this was changed, my model was no longer 8 feet and more around 6 feet.

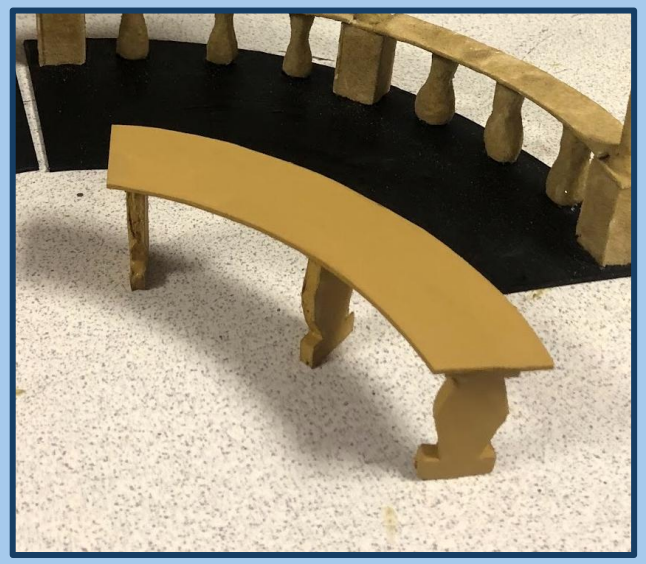


I found that using a small piece of sanding paper helped me achieve smoother pillars and cones.

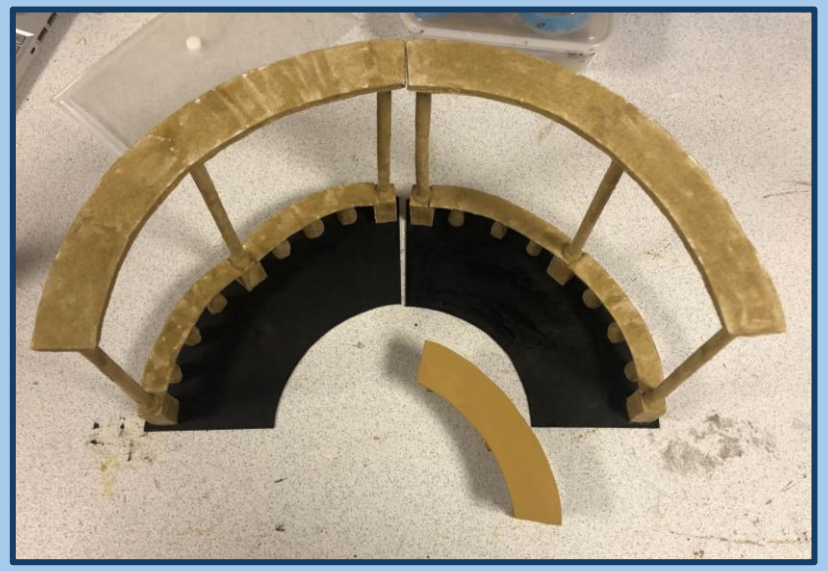


Model Making: Scenic Art





Whilst Alaya and Ant worked on the wooden model, including a forced perspective roof in their design, me and Alice finished off the stone model. Whilst Alice built four benches out of mount board and foam board, I decided to cover the model in sand, by painting a layer of glue over it before sieving sand over the top. Although it was extremely messy and there's now sand permanently on my belongings, I think it created a nice sandstone effect for the director to envision how it will look. I then painted the floor black as we decided there wouldn't be a floor in our designs as it would cause too many storage issues.



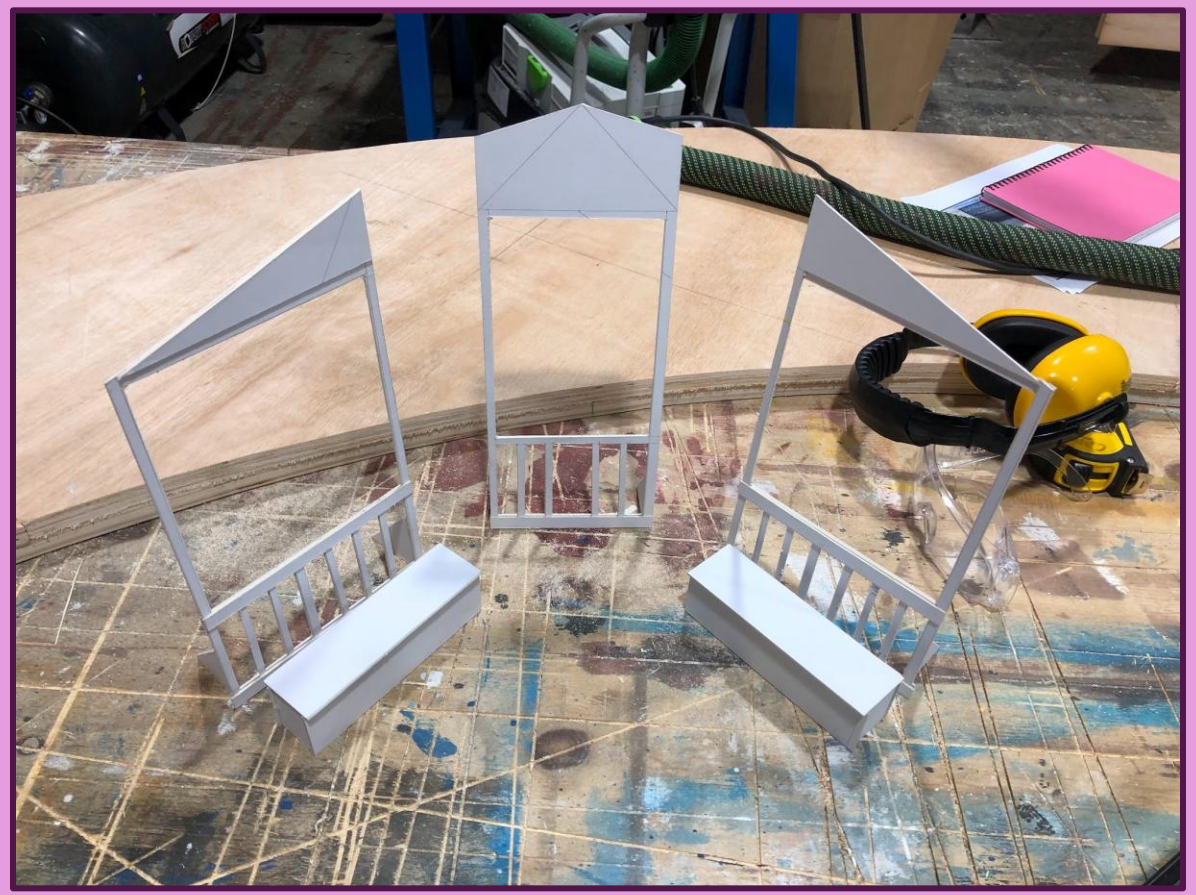
After discussing our mood boards with Dave, we refined them further to print and present to Mike and Rhian in the next meeting. While Ant, Alice, and me built the prototype bench, Alaya edited our mood boards to include notes around the images and sketches, so as to explain our design and thoughts around each option.



Alaya's Scale Model

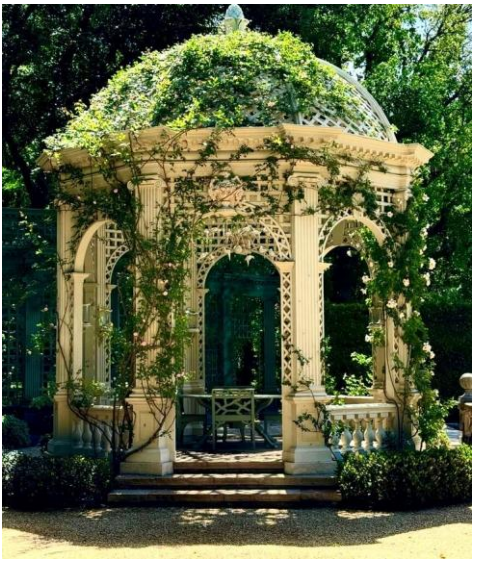
This scale model was created by Alaya Kow and Anthony Burns.

Alaya's scale model was a representation of our wooden design proposal for the Gazebo. It is also in 1:10 scale. We presented our alternative ideas such as an angular shape rather than round, a separation into three parts instead of two, and a forced perspective suggestion of a roof. With straight benches rather than curved.





Wooden Gazebo:







Most accurate to The Sound of Music (1965)



Overgrown with ivy/foliage to show it’s not been used since his Wife died. Also adds visual interest to the gazebo



Opportunity for traditional folk art/ wood carvings that would've been used in 1930s Austria. Added detail and flower language symbolism















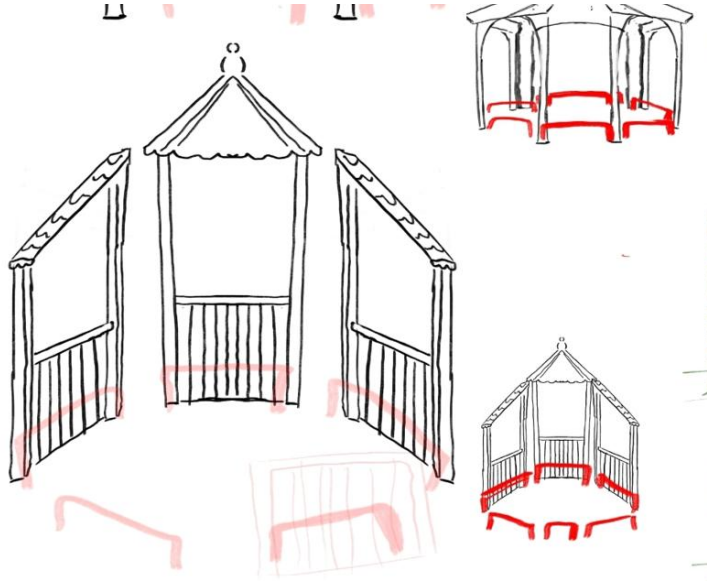


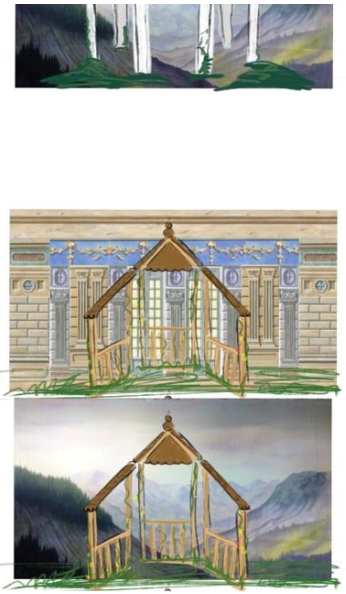


Possible raindrop effect on windows if we have "glass" or do we want it open with no "glass"?

Decorative, White painted wood, Garden, Recognizable, Greenery, Tall, Panels, Angular

Wooden Gazebo Sketches:



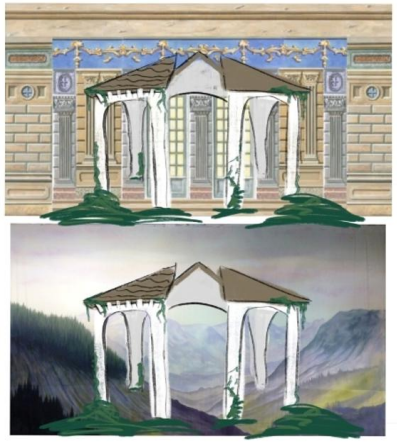


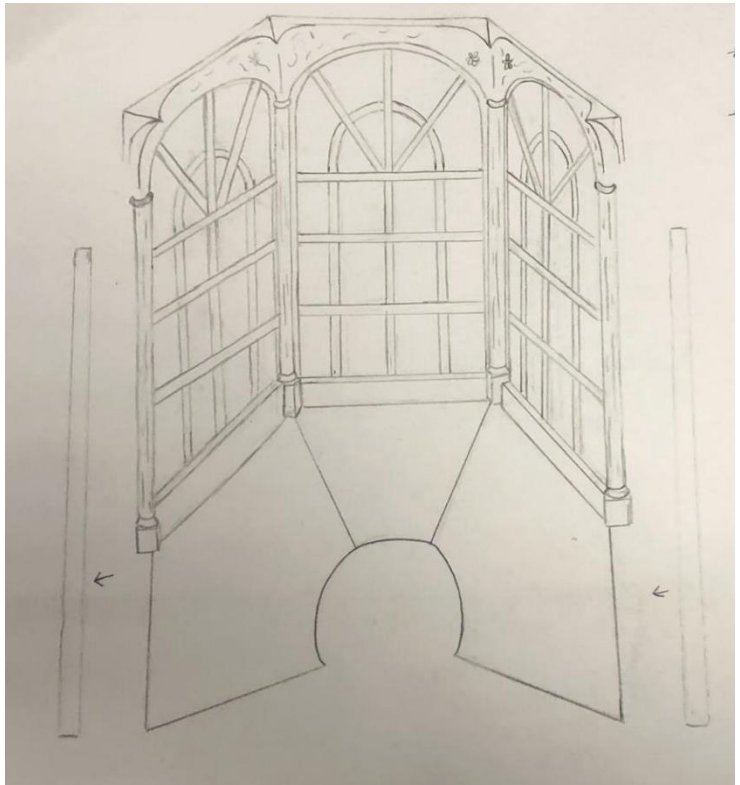


- Fencing around the base
- Implication of a roof
- Three sections



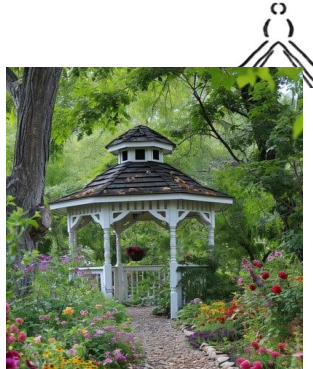






- Panelling similar to the Gazebo in the movie
- Connected to a base on the floor
- Columns to match exterior of house





- Two sides have a roof the centre goes up to suggest the roof continues round
- Arch shaped cut outs to keep it open

Stone Gazebo:

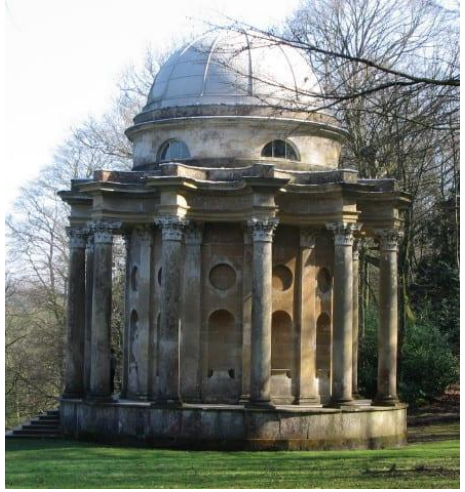




A circular base is common with stone gazebos







Columns to link to the outside of the Von Trapp family house. Shows grandeur and wealth

Carved Sandstone details, created by carving into Styrofoam and a jesmonite sandstone finish. (this finish will also help make the benches grippy for stage hands to move)









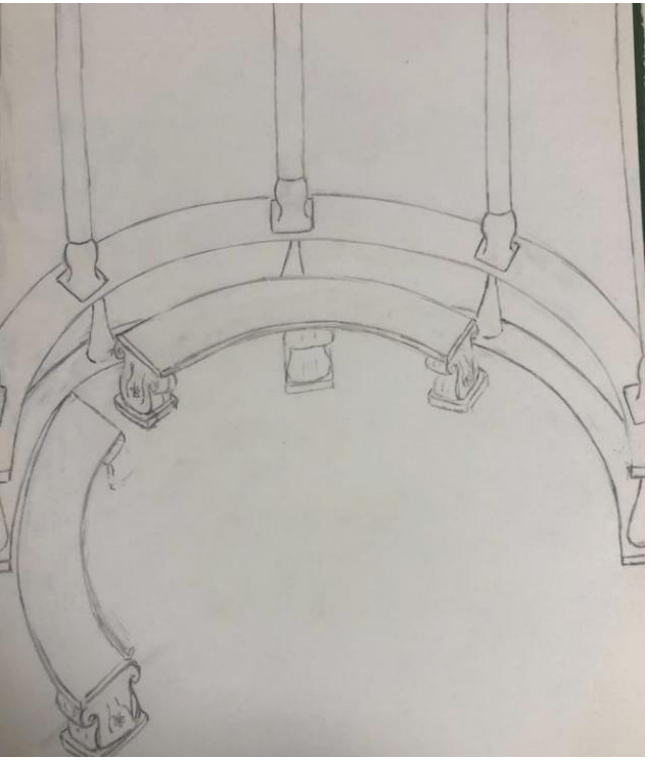


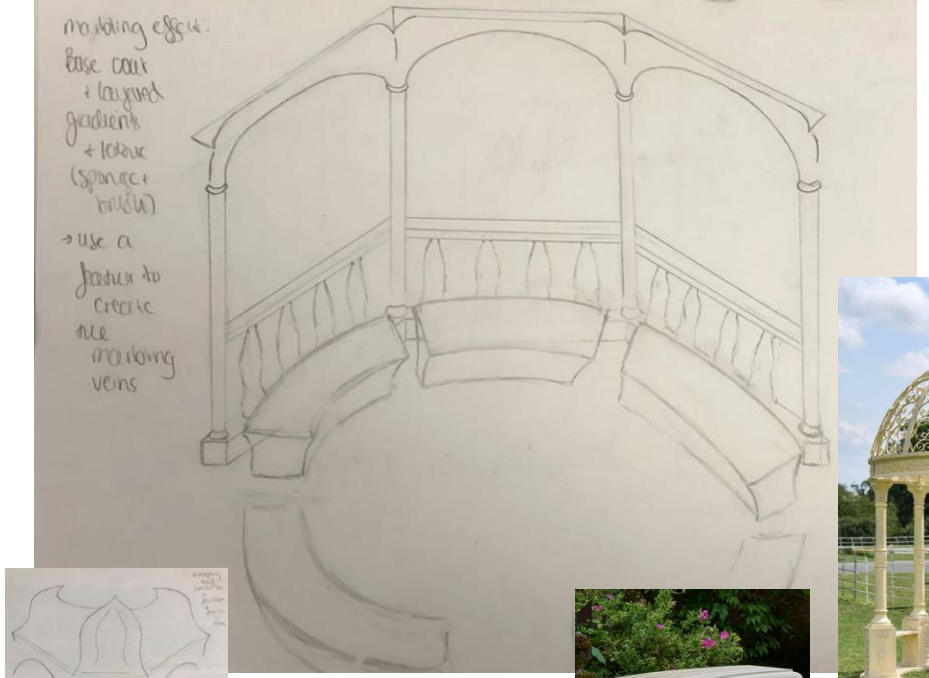


Stone benches would make it easier to create a bench stable enough for the actors to jump and dance on safely

Grand, Solid, Traditional, Carvings, Sculptures, Marble, Sandstone

Stone Gazebo:







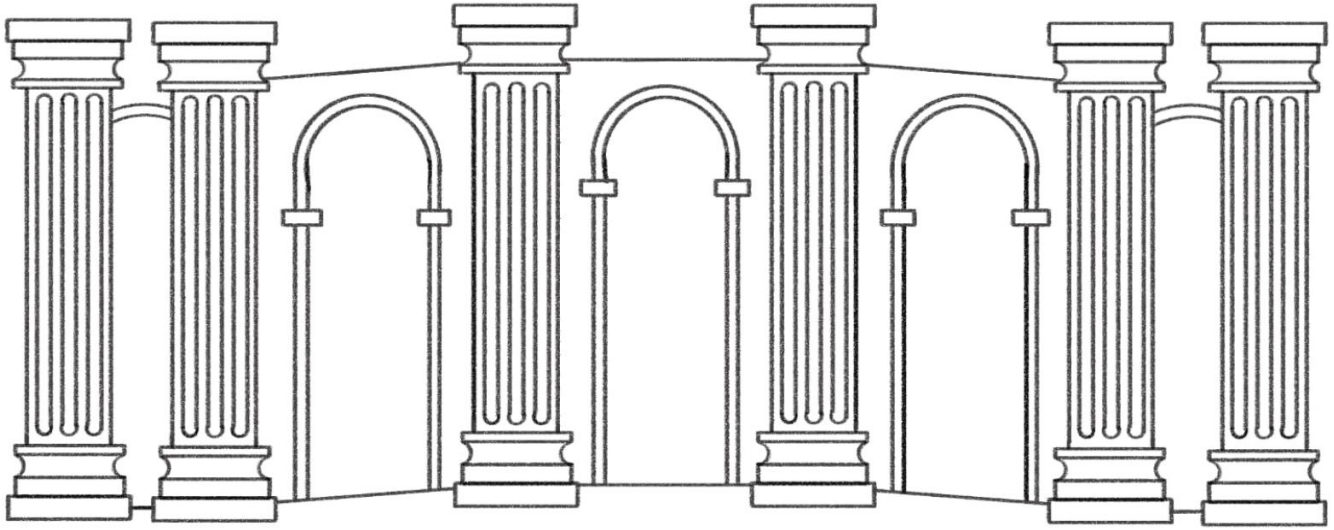




- Two Parts that make up a semi circle
- Roman baroque inspired, design links to the Exterior of the house
- Curved benches that align with the walls



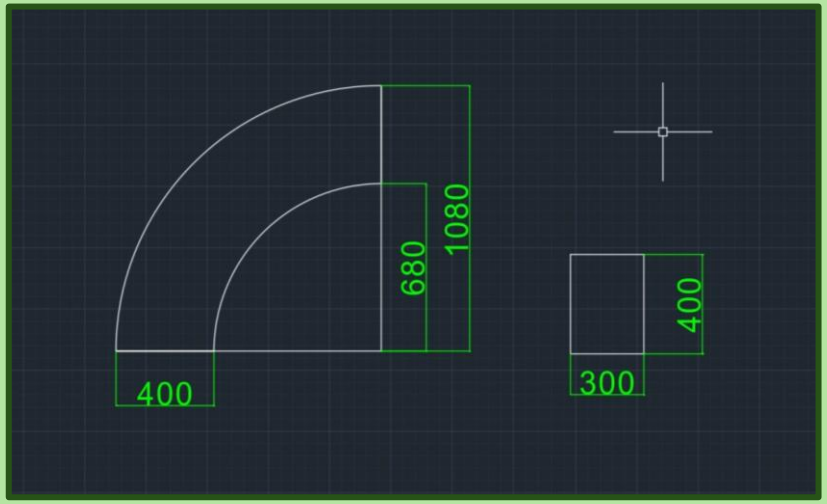




- One part, folds to create the angles of the gazebo
- Larger focus on columns, grander stone/marble design

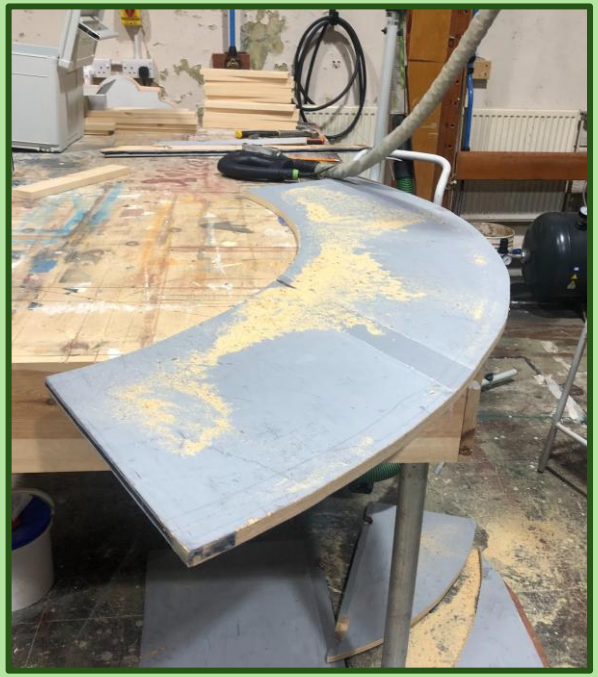
Building the Prototype Bench

Whilst we were working on the models, Alice created a CAD drawing of the prototype bench, we chose a height of 400mm, the standard being 420mm, and the width of 400mm for the seat also.



We decided to build a prototype of the curved bench to experiment with height and the width of the legs, as well as the process of making it. We could then present this to the director to see if she's happy with the height that the actors would be stepping up onto during the choreography.

We made the top out of 18mm plywood cut into a square with a rail saw. We then used a string to mark out an arch by tying it to the pencil and keeping it taut at the centre of the circle. Me and Ant then cut this out with a jigsaw.



As this was only a prototype for height and created curves, we used a scrap piece of 18mm plywood which did not fit a 1080mm square, so we reduced it to 1020mm, creating a smaller version of the design idea.





Building the Prototype Bench

The legs were made of 18mm plywood and 3x1 (cut to 380mm so that the total height would be 400mm). Alice began cutting these whilst me and Ant finished the top.
We varied the widths of the legs by 30mm each time, the smallest being 105mm, the next being 135mm, and the widest being 165mm. We liked the widest the best as we felt it gave us more room to create a carved, ornate, and marble-like design. These were screwed together with 3.5 x 40 mm screws and a drill.
We then marked out where we wanted the legs on the bench, finding the centre of the arch and measuring in an equal distance from the sides. Holding them in place whilst someone screwed them in from underneath, making sure to press down on each leg so that it would secure.
We were happy with the height but decided to make it 42cm instead of 40cm as that's the standard bench height.

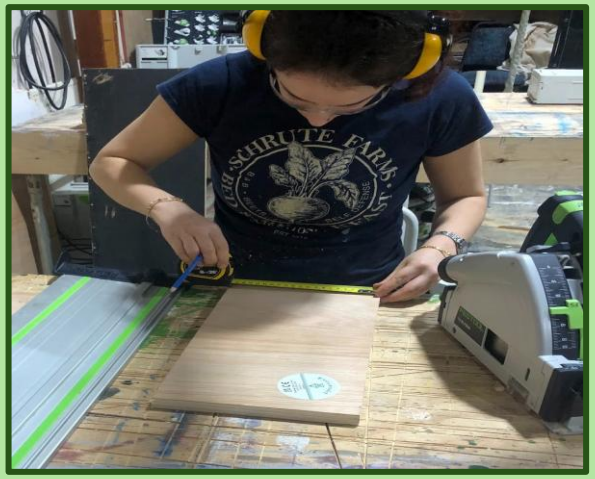


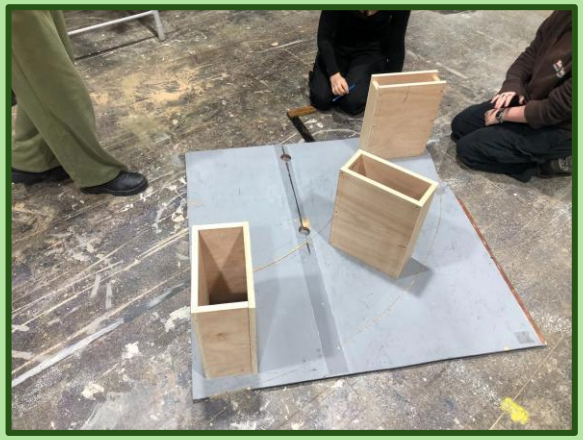














Building the Prototype Bench









After completing the bench, we prepared our questions for the Director Rhian and the Production Manager Mike.





Here are the images of the completed bench, although it's slightly smaller than our designs, it's quite lightweight and would be easy to get on and off stage. There is a slight wobble when you stand on it near the edge, this can be solved by bringing the legs right up to the edge of the seat, rather than having a gap all the way around. It can also be solved by creating raised feet. The picture of Alice on the bench is for height reference, she is 5'3", the same height as one of the cast members playing Liesl!

Meeting with Director and Notes:

When meeting with the Director Rhian, we decided to only present two gazebo ideas, removing the metal option as none of us liked it. They decided on the stone gazebo to tie into the bridge and Roman style inspiration, liking the concept of it being old and run down after years of neglect, connecting this to the loss of his wife. The gazebo would then also tie into the exterior of the villar, which includes pillars.

We then played around with positions of the benches and the gazebo parts sitting together or separated. The director then decided she wanted the benches built into the gazebo, level with where the pillars rest. She also decided she wants the gazebo to sit separated and not be able to join together in the middle, going for a more abstracted style and referencing the Strictly Come Dancing Gazebo design.

Ultimately deciding on no glass as it would look strange with the stone style and would make it a lot heavier during scene changes. We decided on the circular shape, as although nostalgia is nice, it is a new interesting design which is very different from the movie. They want it separating into two parts for storage purposes, with no roof.



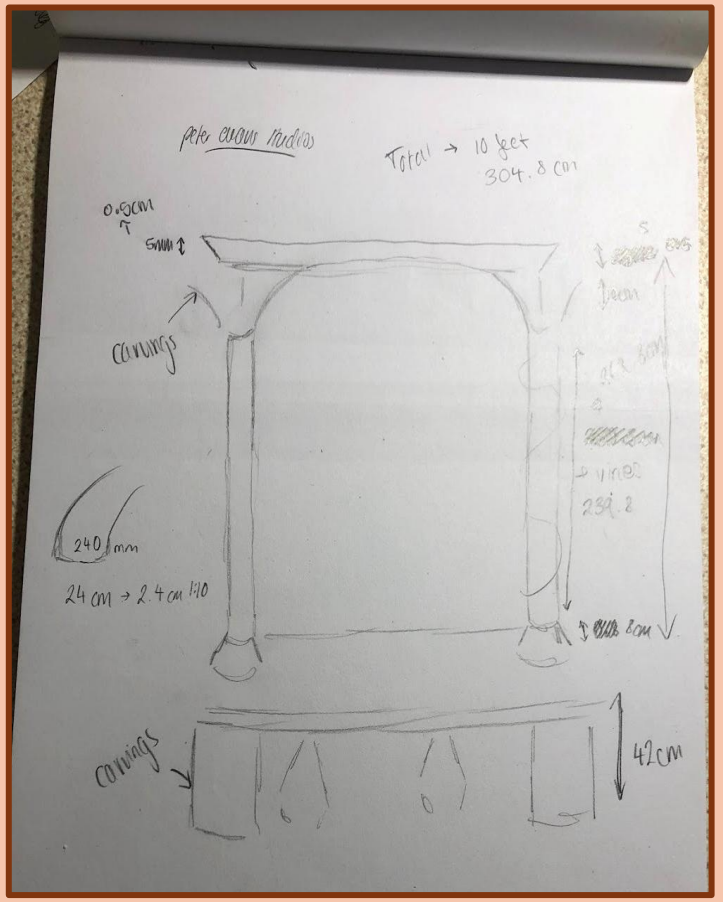


The gazebo will always be seen at night, lit by moonlight and the backdrop for the Gazebo is the villa. The Director and Prod. Manager are happy with 10 feet for the height. Wing space is still uncertain but very tight.

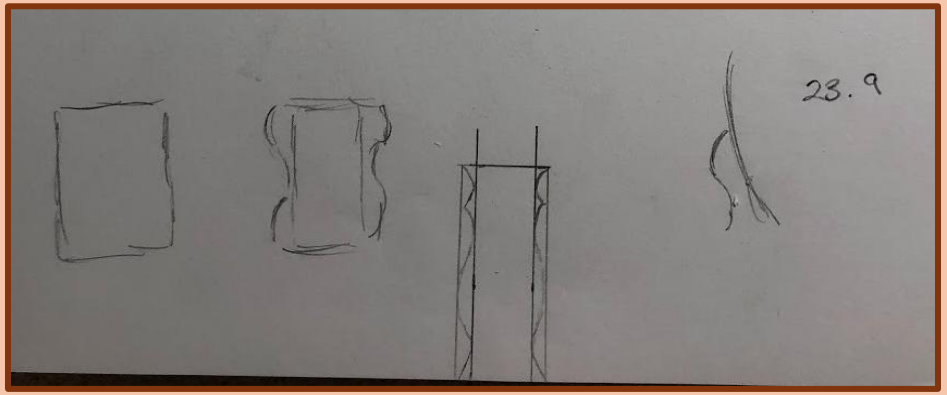
The height of the trees will be 8 feet, with a rough 100mm diameter as that's the diameter of a standard PVC tube. They also have a bedroom truck and an Abbey truck.

Design Discussions Post-Meeting

After the meeting with the director, I sketched out a rough outline of the new design for the stone gazebo. I extended the bench seat so that Liesl could stand on it and suggested the top of the pillar could become an archway. We soon scrapped this idea as it would become a hazard for the cast hitting their head and it would be difficult to secure as we were using PVC pipes for the pillars. I discussed the dimensions with Alice, and we finalised these so that we could start on the refined scale model and the CAD drawing. Our prototype bench was 300mm wide, we decided to make the bench 380mm, allowing 180mm for the pillar and extending outwards by 200mm. We kept the height of the bench as 420mm, as this was the standard height of a bench and a good height to step up onto. The PVC tubes would be 110mm, we would also use these for the decorative pillars, so I decided the minimum width of these would be 110mm, and the maximum width with the clad polystyrene would be 160mm. Extending the boxes to be 380mm to prevent wobbling. These later had to be adjusted to 360mm as the curve of the bench meant that they stuck out at the sides. I altered the height to 10 feet, extending the pillars appropriately, as we couldn't alter the bench height.



The drawing to the right is an attempt to problem solve extending the decorative pillars to support the bench, this was changed to the PVC tubes to fit the original design and as it would still be secure and safe.



Design Discussions Post-Meeting

During this first CAD session, we struggled a lot with the dimensions. As our design is curved, the slightest changes affected everything. At first, we attempted to do the model and the CAD simultaneously, but we soon decided to focus on the CAD and problem solving these changes, so that we didn't have to keep altering the model. We decided the pillars would go right to the base of the Gazebo and be hidden with the boxes to look as if they were sitting on top of them, this will make the structure more secure for weight bearing and if the cast wanted to lean on them slightly. The PVC will be 110mm in diameter, grey, and £19 per 3m.

When discussing the scenic art, we were originally considering Jesmonite but decided to go for a combination of Idenden and sand. This is because sandstone has quite a smooth finish and the Idenden with sand should achieve this more realistically.

We also discussed the vines and flowers that we wanted to dress the Gazebo with, looking for an invasive vine in order to represent Germany and Austria during the Anschluss. This would be particularly effective during Liesl and Rolf's scene, considering his growing interest in the Nazi Party.

The base of the gazebo would be a 480mm width, giving a 50mm gap each side of the bench.

The base will be made out of 18mm ply. The bench seat will be made of 2 layers of 18mm plywood with holes cut into the bottom layer to make it lighter. The Bench will be 380mm in width and a total of 36mm depth. Each side of the Gazebo will be a 6 feet square, creating a total of a 12 feet circle diameter. The top of the gazebo will be made from 3mm ply with 2x1 in between. This will be 240mm in width, flush with the back of the base and extending to just after the pillars. The Boxes below the bench are 360mm deep, 180mm wide and 420mm tall (minus the 2x 18mm ply and 18mm base → becoming 366mm). We need toggles along the top to support it, every 600mm.

→ 30m of 2x1 has been ordered
→ 4 sheets of 3mm ply has been ordered
→ 2 sheets of 18mm ply (in 4x8 feet sheets) has been ordered
→ Scraps for the boxes- also 18mm

Roman Baroque Research



← *(Caravaggio, Judith Beheading Holofernes, 1598-99)*

Michelangelo Merisi da Caravaggio, the artist Caravaggio who gets his name from his hometown. His paintings are known for their theatrical use of lighting to create drama and emotional intensity. His paintings were controversial but popular. *(The National Gallery, Year Unknown)*
Characteristics of the Roman Baroque era:
→ Decorative ornamentation
→ Curved lines
→ Stuccowork
→ Coloured marble

The Roman Baroque period emerged in Rome in the late 16th and early 17th century, key features were theatrical grandeur, emotional intensity, and affirmation of church authority to inspire devotion. *(Grokipedia, Year Unknown)*
A key sculptor and architect of this period was Gian Lorenzo Bernini (1598-1680), one of his works being Ecstasy of Saint Theresa (1647-1652), a beautiful sculpture of the Saint Theresa, who joined a convent at 20 and began experiencing divine visions (similar to Maria who is a young postulant), this sculpture depicts one of her visions where she is struck in the heart by an angel repeatedly. Includes stucco, a prominent feature of the Roman Baroque style. *(Annenberg Learner, Year Unknown)*.

(Bernini, The Ecstasy of St. Teresa, 1647-52) →



Roman Baroque Research Continued



(Henley, 2009)

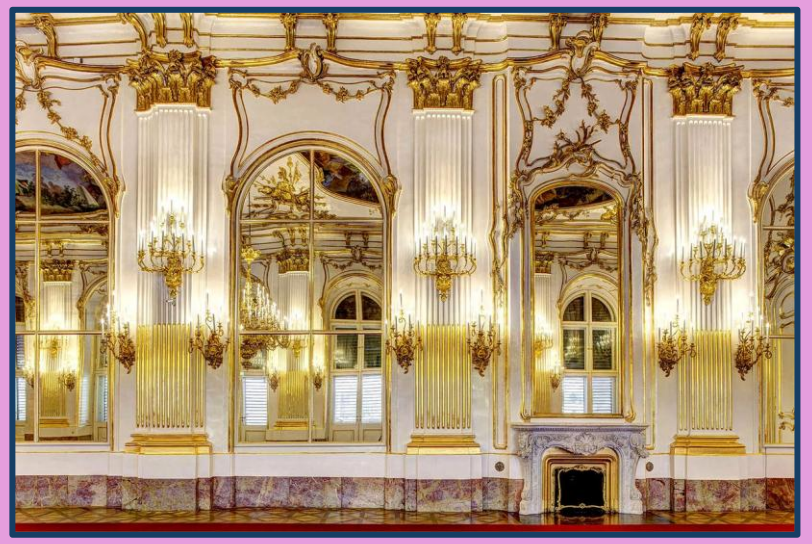
Roman Stuccowork was crushed lime mixed with sand and water, this could be moulded into decoration for walls, ceilings, and floor, both interior and exterior. A very common practice of this era, with the sculpture by Bernini also featuring this medium *(Lepinski, 2012)*. Stuccowork is a perfect effect for us to include in our Gazebo design as we want decorative carvings to be a key feature of the stonework. Plants and leaves were commonly depicted in the stuccowork.

The Roman Baroque style developed in Germany in the 18th century. Complex shapes, oval bases, and structures full of contrasting surfaces and materials were important to the era. With curves, twists, gilded elements, and painted ceilings.

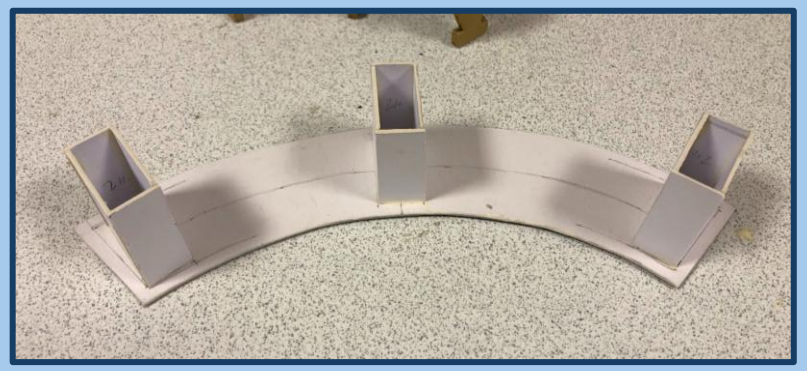
They wanted fluidity and movement in the architecture, that's why curves were a huge feature.

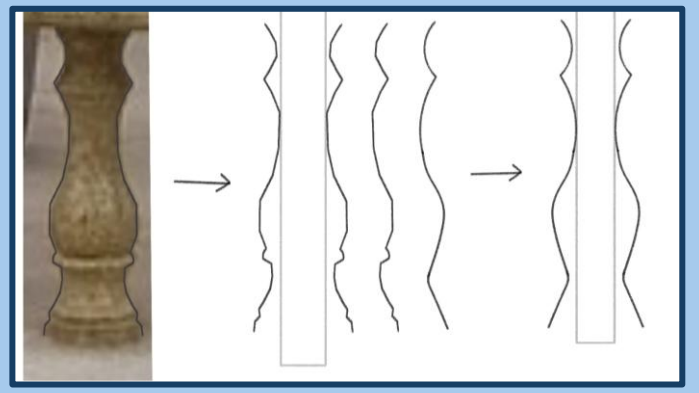
As these materials were expensive, many *(Lacob, 2021)* features such as marble would be wood painted to look like marble, using similar faux techniques as scenic art does. I think our combination of stone and marble will be a great representation of this period, decorated with carvings of plants and the grandeur of the stone gazebo design with the tall pillars perfectly sits within the Roman Baroque style.

(Lacob, 2021) →

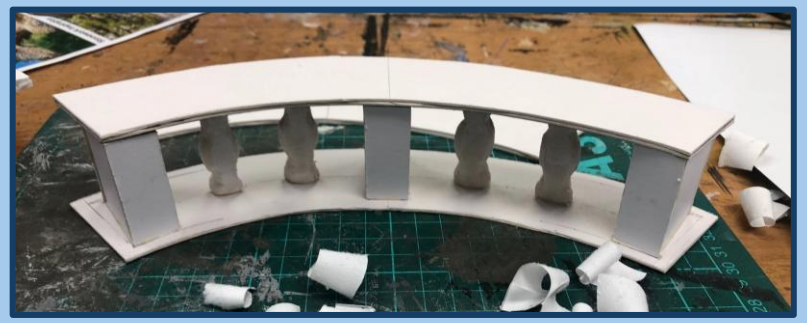


Refined Scale Model

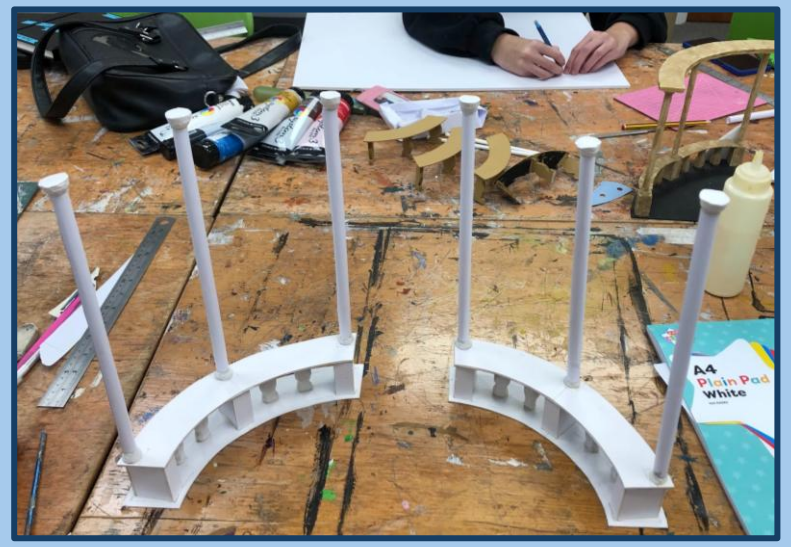








The process of creating the refined scale model was very similar to my initial model (still working in a 1:10 scale), starting with the 6 feet square to create the arc, measuring out the centre point and 50mm in from each side to place the boxes. Alaya created the boxes out of mountboard, making them 360x180mm squares and 400mm tall (to account for the thickness of the mountboard layers). Whilst I created the base and bench out of mountboard, I layered two pieces of mountboard for the bench to simulate the two layers of 18mm ply.





When it came to the decorative pillars, I first found a reference image for the shape. Ant then simplified this design so that we wouldn't spend too much time on such a small part of the Gazebo. I sketched out a 110mm square in scale, sketches the pillar shape around this box and drew an outer box around it to decide the maximum width would be 160mm. I altered the design so that we only had two per section rather than three. This was due to a lack of space, making the pillars look cramped.

Refined Scale Model

After glueing the bench parts together, I moved onto carving the cone shapes for the top and bottom of the pillar, also out of two layers of foamboard glued together, I then cut the wooden skewers to the new height and Alaya made the paper pillars by rolling and glueing paper to a 110mm diameter. After completing the new roof pieces, the structure of the refined model was complete, and we could move onto adding texture. At this point in time, I had left the base blank, as we were still debating as to what we wanted to do with it, in terms of scenic art.





Me and Alaya applied the sand to the gazebo in the same way, applying a layer of glue and sieving the sand over the top. Working together on this saved us a lot of time, and we were able to get this model done in 2 days. Once the glue and sand had dried over night, I worked on the scenic art of the gazebo whilst Alaya created carving samples, in a 1:10 scale, for the boxes below the pillar. She took inspiration from the flower research and symbolism of Edelweiss and made these out of air-dry clay. Alaya then covered them in sand to match the rest of the Gazebo.









Refined Scale Model: Reference Images and Marble Flooring

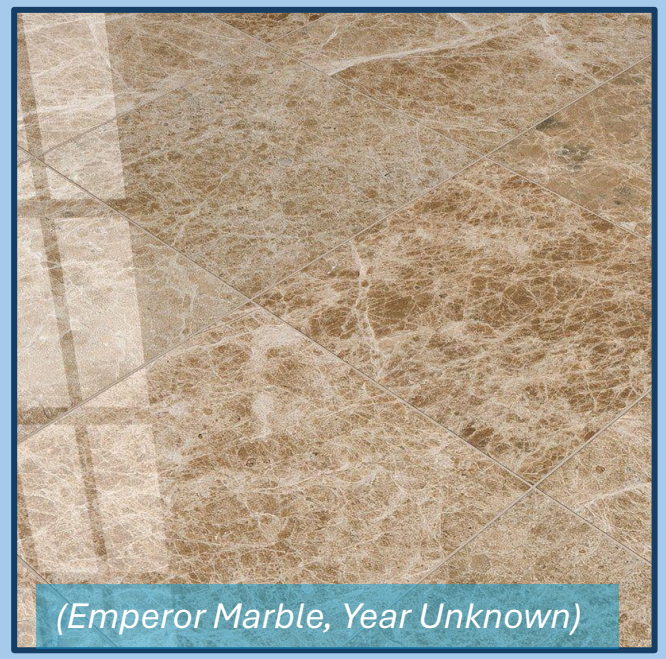
We decided to make the base of the gazebo marble, in order to expand on our skills and get the chance to learn how to create a marble effect, as well as to make the gazebo more visually interesting rather than the whole thing being sandstone. I found some visual references of marble flooring, specifically brown marble, to find the shade we wanted. We chose this light brown and beige marble style as we felt it would compliment the beige of the sandstone. I also found references for the distressing of stone. Looking at how moss grows on pillars and the supports underneath. This was helpful as I was originally going to use a very brown colour and I ended up creating a really dark green with a little bit of brown and black mixed into it. To the right is an image of a test strip I did, attempting to create the marble effect with paint. I ended up printing out the bird's eye view image to the left as it looked more professional.

(Authentic Reclamation Ltd., Year Unknown)





(Stone Tile Depot, Year Unknown)



(Emperor Marble, Year Unknown)



Refined Scale Model: Scenic Art Process



I started with the moss-coloured paint distressing, mixing brown, black, and green to create the shade I wanted. I applied this using a dry brushing technique in order to get the paint into the cracks of the sand and emphasise the texture and imply the moss is growing into all of the cracks. Applying small bits of brown in certain places to represent a general build up of dirt and a lack of cleaning and maintenance to the gazebo. I then carefully removed the base of the gazebo using my craft knife, tracing over my printed-out marble images and gluing these to the top of the base.





I then glued the bases back onto the rest of the Gazebo and painted into the joins with the moss colour, mainly to hide the obvious difference in material. When it comes to the actual build, the marble will be cleaner than the rest as it's difficult for marble to have moss, so it will be dirtied down in a more subtle way.



Refined Scale Model: Completed Model



The final part of the model was to attach the vines. I found some green embroidery thread that I owned, and I glued this to the pillars and on some of the bench. I then painted over parts of the vines, in the darker moss colour, where the vines overlapped with the moss I had already painted. I'm really proud of the finish of this model. I think it looks really professional and that I've improved from the last few modules in my model making and scenic art skills.







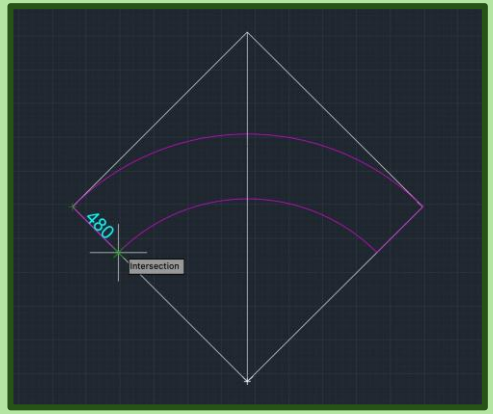


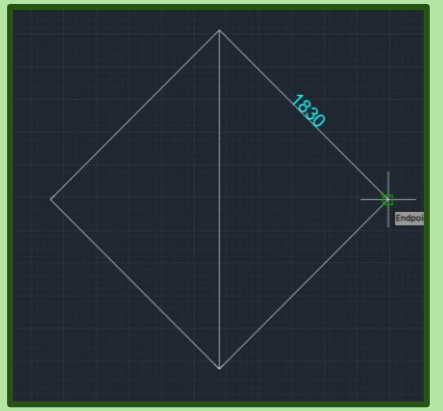
CAD

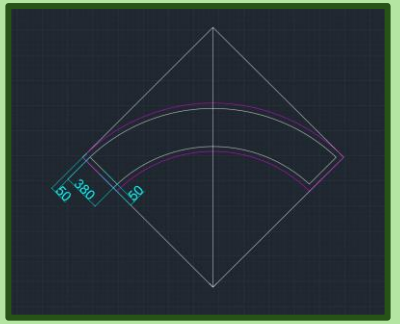
CAD guide: yellow lines → roof piece, white lines → bench piece, purple lines → base piece, and blue lines → box and pillar pieces, including vase pieces.

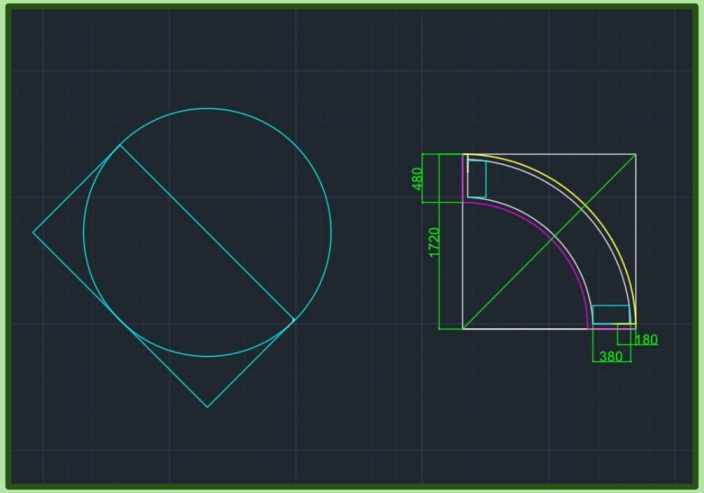
When beginning the CAD drawing for the plan view, we created it to a 1830mm box, as we wanted the total length to be 12m, so each side of the gazebo had to be 6m. We then created the arcs from this angle and centre point, measuring in 480mm based on my dimensions and decisions for the model, having the boxes be 380x180mm so they reached the edge of the seat and would prevent any wobbling. We decided to see if we could alter the dimensions to fit a sheet of plywood, which is 4x8 feet. Unfortunately, we realised this would reduce the size of the gazebo too drastically (making it a 1720mm square), so we returned to our original design and dimensions.

All CAD drawings created by Alice Pearson.









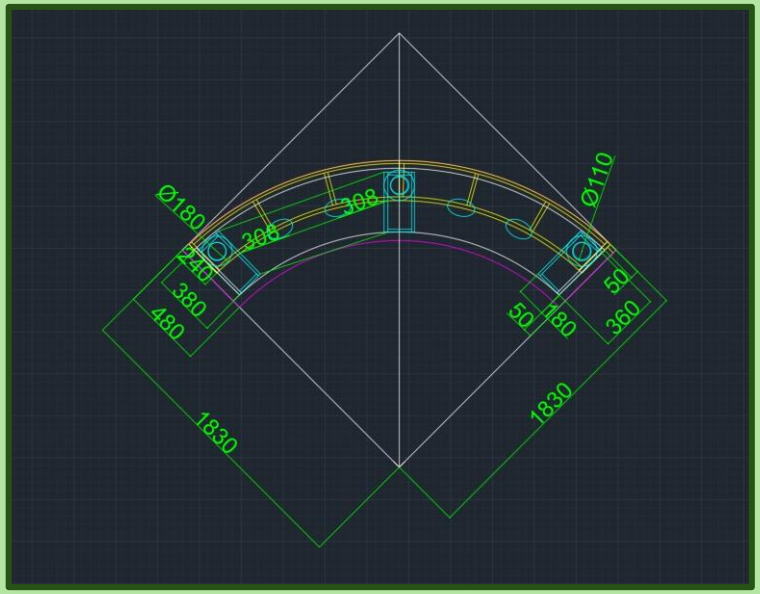
Attempt to fit our gazebo into a sheet of plywood.

Measuring in 50mm from the base to get the bench position, measuring this to be 380mm. The roof was 50mm from the side of the base but flush with the back of the base, making this 240mm.
Alice created the toggles, which are around 400mm apart, with the minimum requirement being 600mm apart. The roof is made from 3mm ply on the top and bottom, with the sides being 2x1 (roughly 44mm by 22mm)
The boxes had to be changed to 360mm as the bench curves so the corners were sticking out, this should hopefully not wobble too much as we reduced it by the minimum amount possible.

CAD

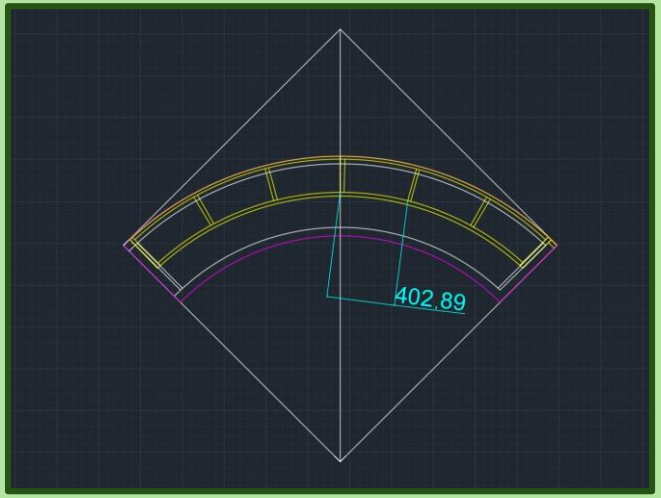
All CAD drawings created by Alice Pearson.

To get the vase placement you can use the polar array tool, this will evenly distribute an object in a circle, finding the centre of the circle and choosing your angle, ours was 90 degrees as we were using a quarter of a circle, and then finding the measurement you need to have 2 spaced at a 45-degree angle.
We realised the polystyrene vases needed to be a different height to the boxes. The boxes are 366mm so that the total bench height is 420mm. As the bottom layer of plywood for the bench has holes cut into it to make it lightweight, the vases will now sit 18mm higher than the boxes. This meant the vases need to be 384mm instead.

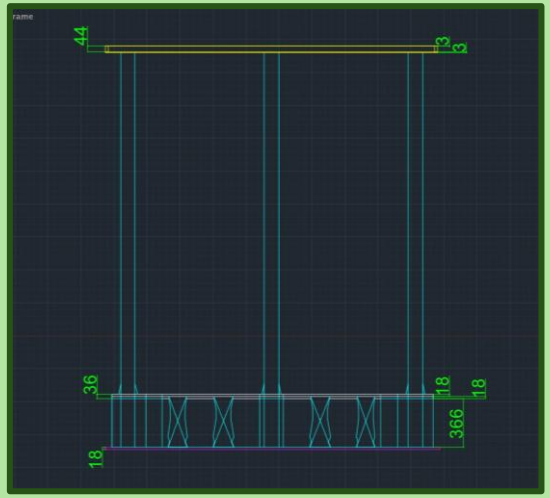


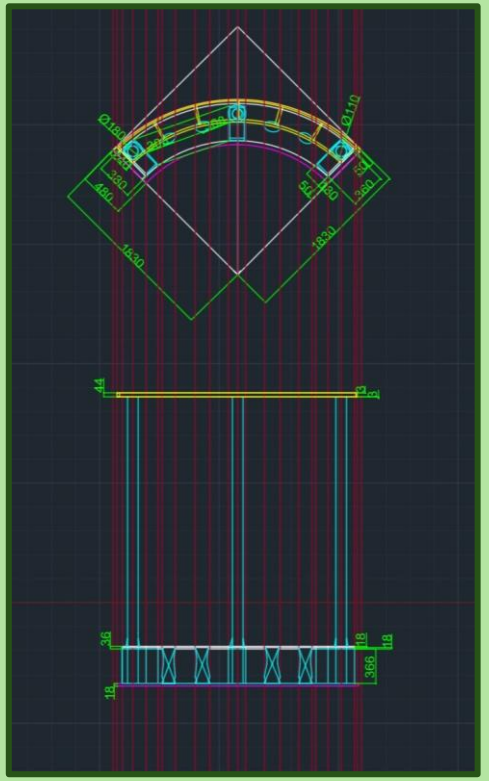
Final CAD Drawing.

Polar Array used to create the Toggles. →



Construction Lines used to create Side View.



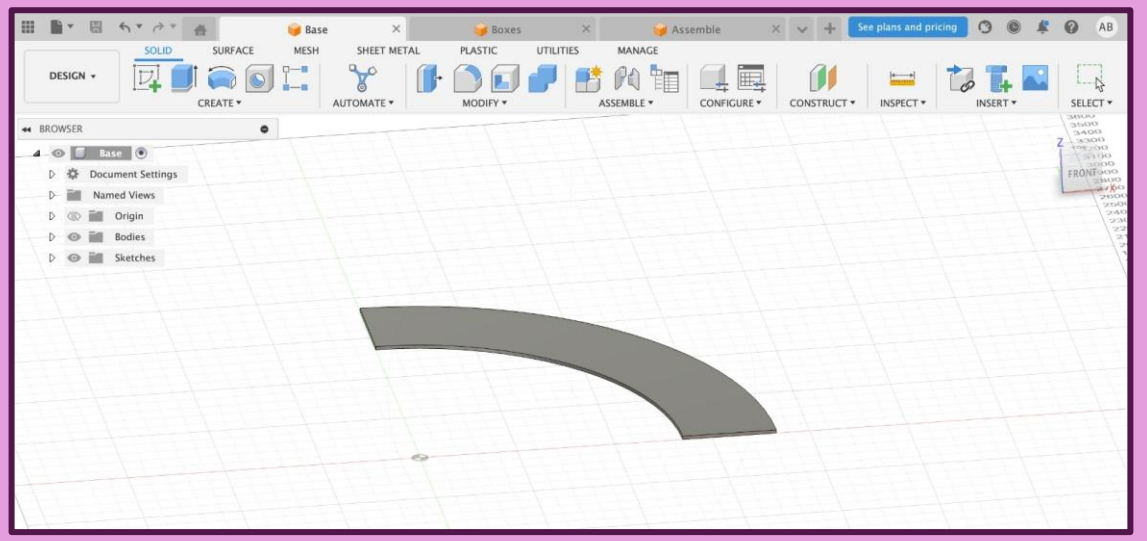


Construction lines can be used to build a side view, specifically helpful with a curved object where the perspective changes and isn't as straight forward. Dragging them down from the plan view to get the exact positioning of them when sideways. They help you with accuracy.

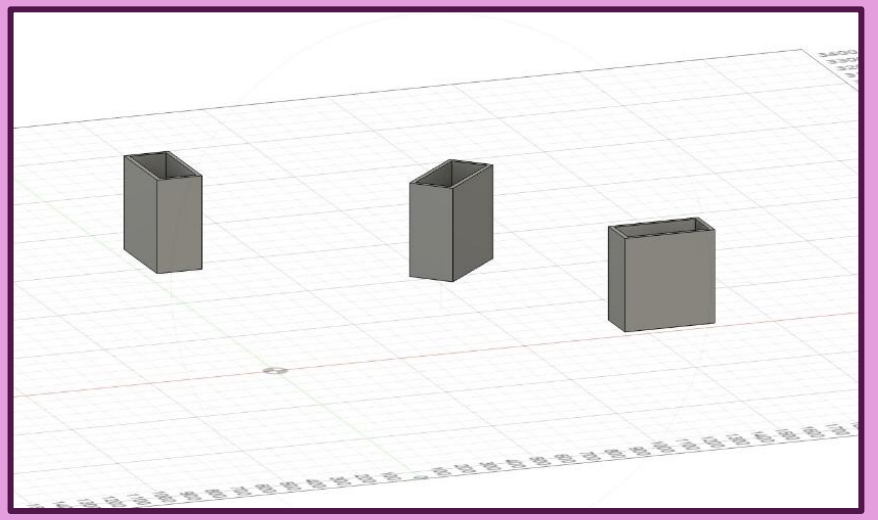
Fusion

Me and Alice worked with Ant to create the first few parts to the Fusion model, I was really excited and interested to do this as I've never used Fusion before and really want to build up my experience and skill level with it for the future- especially as I have a huge interest in model-making.

Going to file, and new design, you create a project called Gazebo to save the design into. Designs in Fusion are like layers in AutoCAD. You then name this design based on the layer. We started with the Base. Inserting your axis, you start in a bird's eye view. We created a circle, with a radius of 1830mm to create our outer arc of the base. We then made a line 480mm from the corner, to create the width of the base. Connecting this with another circle and deleting the excess. You then select 'Finish Sketch' and extrude it, to make it 3D. Select 'one-sided' so that it only extrudes from the top and not the bottom also. We extruded it 18mm on the Z axis. We then saved the design and created a new one for the boxes.



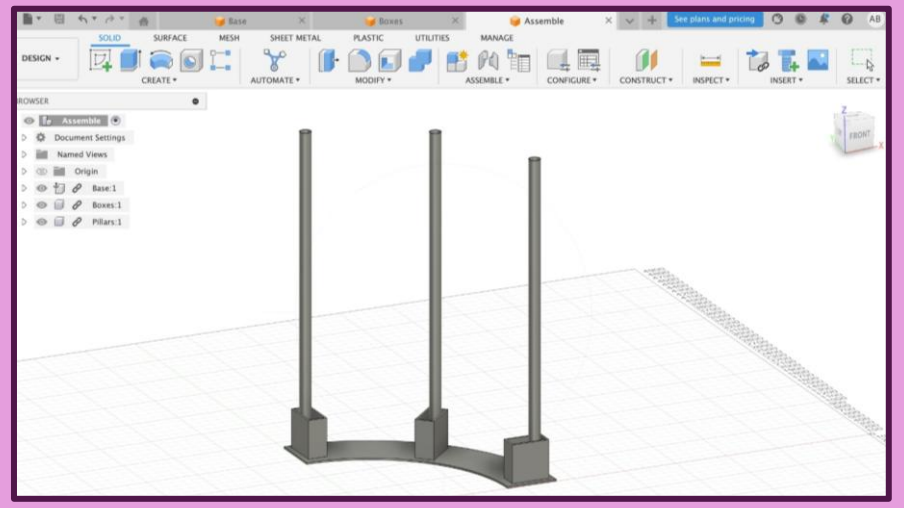
Created a 1830mm square again, we then measured 50mm in and up for the starting point of the box. Creating a 360x180mm square and then creating a square inside that, 18mm from the edge for the thickness of the plywood. We then used the modify tool selecting 'make a copy' in the drop down. This duplicated the box and we could move it to the other side of our arc. We then drew a centre line for the arc and measured from the corner to where the box begins using the CAD drawing, creating a copy of the box and marking the centre point (90mm), and then aligning this with our previous point. Adjusting the angle appropriately.



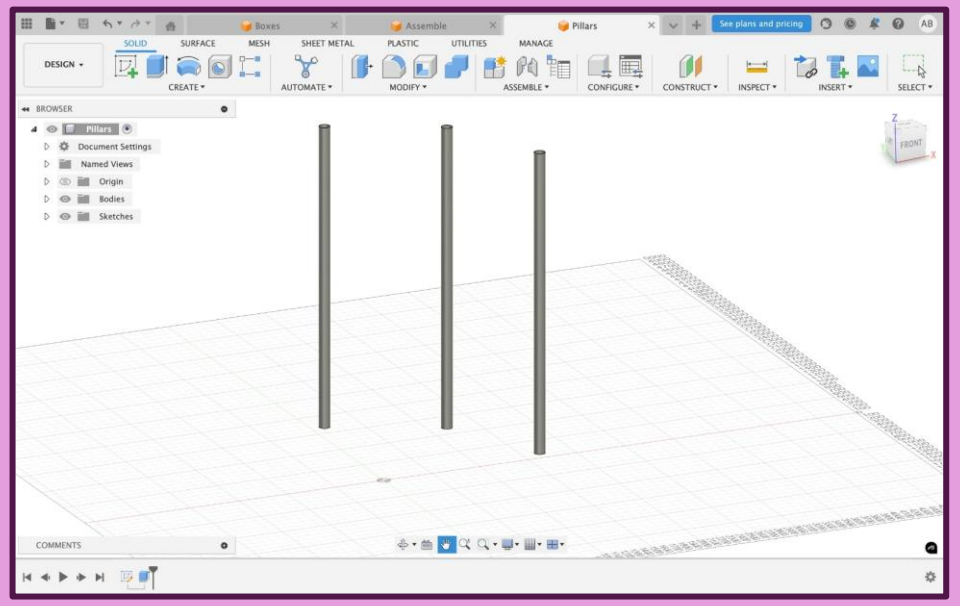
Fusion

Extruding this again, making sure to select all sides, raising it 366mm on the Z axis. We wanted our benches to be 420mm high, so we subtracted 3 lots of 18mm, to account for the base thickness and the two layers of 18mm ply for the bench seat. Before extruding the box, you have to go into the operation box and select join, so that it makes a cube screwed together and not 4 separate walls.

We then combined the boxes with the base by creating a new design, titled ‘Assemble’. Going to the grid in the top left corner and selecting the gazebo location, double clicking the base and selecting ‘insert’, and then doing the same for the box layer. We wanted the boxes to sit on top of the base, so we selected the box layer and raised it by 18mm on the Z axis.



When making the pillars, we created the 1830mm square and measured in from the base, using the CAD drawing. We made circles with a diameter of 110mm to match the PVC tubes we’re using, and gave them a rough estimated thickness of 3mm, creating a circle inside the circle to represent this. Doing this by subtracting 6mm from 110mm, drawing a circle with the diameter of 104mm. It was a similar centre point process to the boxes, replicating them to be evenly spaced. We then extruded them by 3000mm and assembled them to sit on top of the base, raising them by 18mm like the boxes. We then created a new design for the roof layer, the same process as the base layer.

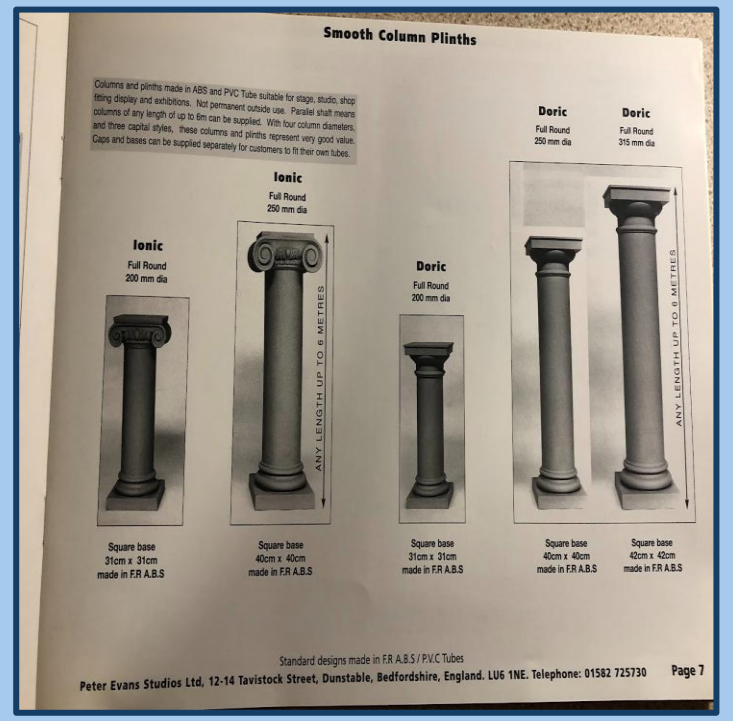


Peter Evans Studios Catalogue

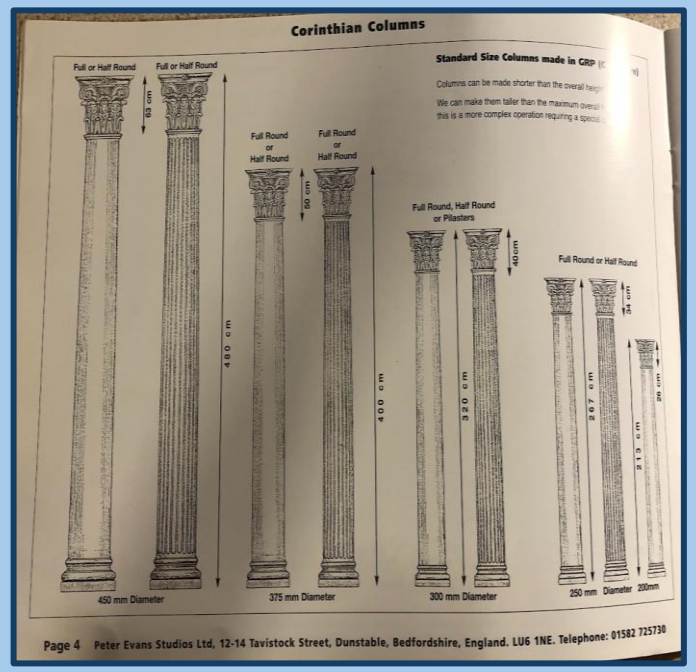


p. 11

When considering how to make the decorative elements of the gazebo, such as the tops of the pillars, carvings, and balusters (decorative pillars), I looked at the Peter Evans Studios catalogue to see if it was worth buying any of these elements pre-made. In the end we decided to use polystyrene and carve it ourselves, to both save money and build on our skills.

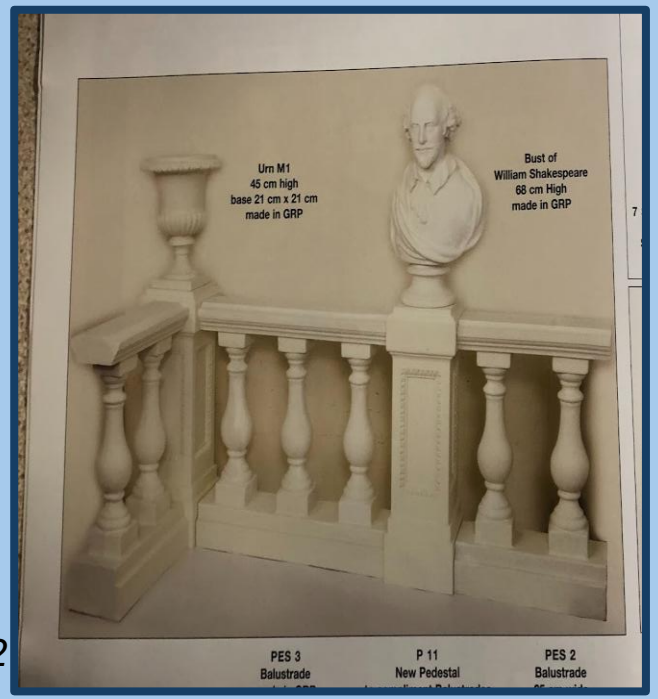


p. 7



p. 4

All images were taken from the Peter Evans Studios (Year Unknown) catalogue, page numbers next to each image.



p. 2



p. 1

Paint Stock

We visited the paint store in order to look at what colours we might want and the quantity we already had in stock. We mainly looked at Raw Sienna, Burnt Umber, and Yellow Ochre. We also considered needing a blue for the moss colour and colour correction, finding a Turquoise for this. All of these shades were Bristol, and we found some Rosco's white and black. Most were quite empty, so we decided we would create some sample boards before deciding which ones we wanted to order more of.











We also found Myland's powder paints in the same shades.

















We next needed to look at primers, glazes, and polystyrene.

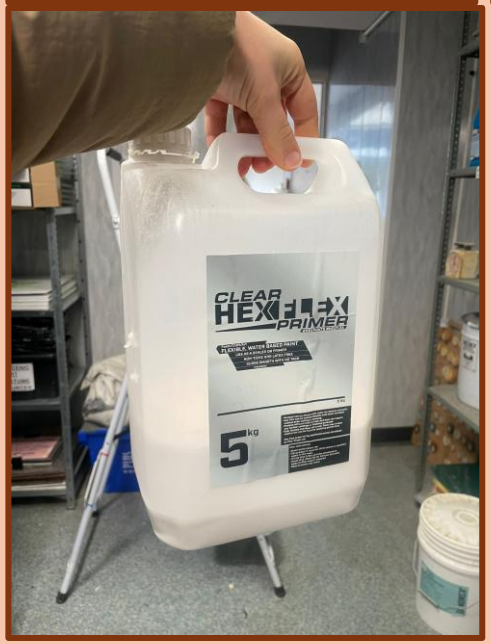
Primer, Glaze, and Polystyrene Stock





Wanting to test metallic paint on a swatch of PVC for the Birch trees, planning to put a layer of Idenden on them which we can carve into to create the horizontal lenticels that are iconic for Birch trees.
We plan to do all of these tests and swatches before ordering any paint and whilst building the structures, so as not to waste our budget on paint that doesn't work.





The polystyrene blocks can be ordered as custom. We've chosen 380 x 180
Deciding to carve a hole in the centre for the PVC tube to sit in, filling the gaps with expanding foam to act as an adhesive and to secure them.
For the primer we decided to use a watered-down layer of paint in the shade we plan to use, so that if it chips, a white layer is not revealed.





Scenic Art Texture Research

It is important to consider weight and various features when choosing your texturing materials *(Troubridge, 2018, p. 142)*. For example, our choice to order play sand to mix with the Idenden will be a softer finish than a courser sand, making it softer on the casts' hands and skin, but still maintaining the grippy qualities for their feet.



← →

(Kirk, 2017)



Complex finish? The texture will do a lot of the heavy-lifting in terms of complexity, meaning we will only need to do a few layers and some moss stippling before attaching the decorative vines. Idenden is already fire-proof, saving us another step.

Consider: *(Troubridge, 2018, p. 143)*
What is its practical use? → cast will dance and stand on it and make contact with it. This means it needs to be durable enough to withstand this and not dangerous or sharp, so they don't trip or cut themselves.
Is it touring? No.
Are they in costume/footwear? Yes, this makes it easier, if they were barefoot then the texture would be too rough for their skin.
Has weight of material been considered? Idenden will be the lightest option, as we are only applying it in a thin layer.
Where does it sit in the design? Everything except the base will be covered in Idenden and sand, this is ideal as the base is what will be dragged along the floor during scene changes, so the texture will be less damaged.
Timescale? Good amounts of drying time need to be allocated, ideally overnight. We are mixing a pigment into the texture to save time on base coats.

Scenic Art Research: Marbling

All images are screenshots from LAPC Theatre (2021).

I looked into a method not using a feather, despite knowing that the feather would be the right choice for this effect, I wanted to see our other options that allowed us to use tools we already had and wouldn't have to purchase. This involved using a small brush to create the veins, but this would take too much time. *(Archini, Year Unknown)*





The feather method follows these stages: start with priming the surface with a base colour, once this is dry scumble (wet-blend) your three colours together (a light, a middle, and a dark shade) using random and varying brush strokes to get the left image. Recommending having a separate brush for scumbling that doesn't touch the paint pots. Once this is dry, you can mark lines for tiles if required or move onto a layered technique- either rag-rolling or stippling. I liked the stippling effect, using a natural sponge, layering two shades. Then moving onto the veining, using the feather, create random lines, twisting the feather as you move to alternate the widths. You can go over this in sections with a darker/lighter colour. To tone down the veins, this guy used spattering, but I don't like the effect that creates, so I think more stippling is better, but this time a very light stippling in almost a dry brushing technique. He recommends a layer of water over the marbling before toning down so that this doesn't just sit on top. You then coat it with a glaze. I want to print a few marbling reference images to create sample boards from.





Scenic Art Research: Marbling Continued

(Shuper, 2024)



(Crabtree and Beudert, 2005, p. 300)

Marble:

Marble is a mix of stone pieces and liquid bands of minerals, formed together through heat and compression. Its fluidity creates the endless variations.

When creating the veins, avoid creating tree branches and cellular patterns. Avoid repetition, using feathers can help with this. When it comes to the veins, less is more. A rag can also be used.

(Crabtree and Beudert, 2005, p. 343)

Marble Faux Finishes:

The layers of silt settled and hardened are what create the veins, some are soft and some are defined. The veins can be directional but never have a pattern, bad veins give away a bad faux finish. Wet blending, scumbling, feathering, sponging, spattering, and glazing, are all techniques required for marbling.

→ All the seams and joins must be filled and sanded
→ Always do a sample board
→ Your base coat can be one or multiple colours, can also be rough or smooth
→ Can then sponge/spatter for layers, letting each layer dry allows you to have more control. You can wet surface once dry before each layer to soften its application
→ Feather graining is time consuming but perfect for our requirements

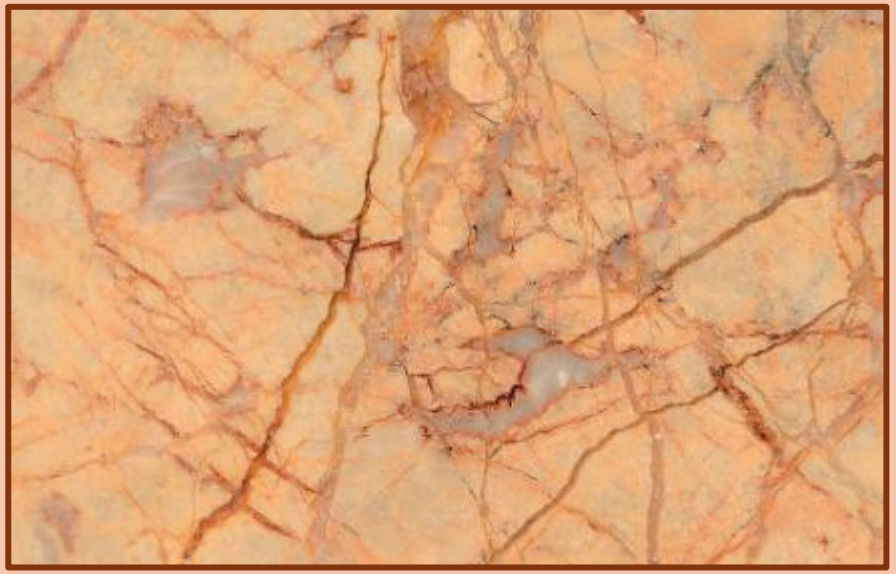
Marbling:

Marble faux finishes have been created for centuries, with marble finishes being found on pottery that's over 4,000 years old. It can be seen in the Sistine Chapel in the Vatican and in St. Peter's Cathedral in Rome. Faux marbling and wood graining became very fashionable, displaying ideas of wealth for a lower cost *(Troubridge, 2018, p. 153)*.
Some of these faux finish decisions stemmed from marble not being a strong enough stone to support the building! *(Troubridge, 2018, p. 156)*

When polished, marble can vary from a low sheen to a high gloss. It is important to note which one you want, ideally for stage low sheen would be best. To avoid reflections but still make it obvious it is marble.
Below are examples of marble that I think are close to the style we want to achieve. The left image is Sienna Marble, made from a white base coat and glazes of Burnt Sienna, Raw Sienna, Yellow Ochre, and Red. The right image is Terra Rosa Marble, made from a white base coat and glazes of Raw Sienna and Burnt Umber. *(Troubridge, 2018, p. 157)*

Tools we need are; flat lay-in brushes, fitches and feathers for the veining, stipplers for spattering, stencil brushes for stippling. I think we can use a natural sponge for the stippling as it will create a nicer and more varied texture. I also don't think we should do any spattering as I can't see that building up any of the layers of real marble examples (*Troubridge, 2018, p. 159)*. To avoid blooming in the glaze we need to follow the manufacturer's instructions and recommended coverage, as well as apply it in good lighting and suitable temperature. *(Troubridge, 2018, p. 164)*

(Troubridge, 2018, p. 157)



(Troubridge, 2018, p. 157)



Scenic Art Research: Moss

Moss doesn't have any roots and can grow in many different environments. They soak up moisture and rain like a sponge *(McHale, 2020)*. The most common moss types to grow on stones are sheet moss, rock cap moss, and cushion moss. *(Hueston, Year Unknown)*

(Mythos, Year Unknown) Sheet moss is a large carpet-like moss pattern, which is not what we want, cushion moss is dense, these are both not the light effect we need.

(Schofield, 2025) →

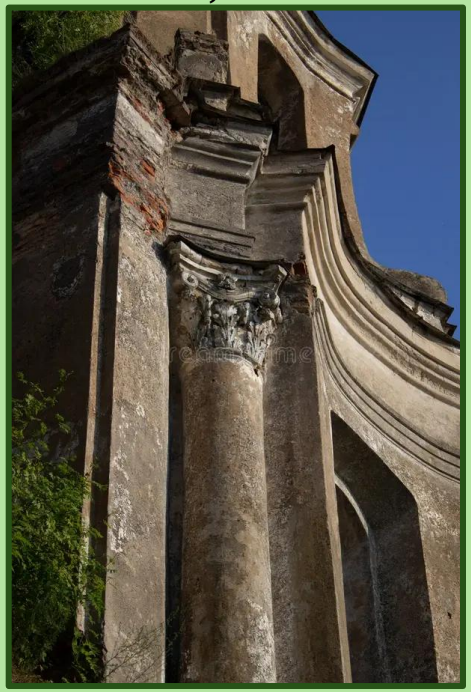


Lichens and algae are closer to the effect we need, which are fungal growths that can add a lot of character to buildings *(Watt, 2006)*. They grow mostly in gaps and at the bottom of pillars and in the corners and joins, fading out until the top.

(Watt, 2006)



(Dreamstime, Year Unknown)





← *(Authentic Reclamation Ltd., Year Unknown)*

(Dreamstime, Year Unknown)



Scenic Art Research: Stone Effect



Crypt Group, someone I've looked at previously, used Sono tubes for the columns, with wooden bases in a production of *'Man of La Mancha',* which was my initial design idea. Mixing sand and sawdust into a joint compound (similar to Idenden).

The first layer was thin and gritty, created an even coverage. The second layer was a broken overlayed plaster effect, adding more sand to create a thicker texture, and applying over a ripped-up piece of cardboard to create the sharp broken effect. *(Hincapie, 2017)*

The first layer of paint was scumbled on, going from dark to light, so that the dark reached the dips in the texture, and brushing over the lightest shade to sit on the highest points, emphasising the shadows in the decay. Going over this with washes and a rub-off technique. They created a dark green wash for the algae and moss effect, applying on the base, corners, and joins where most of the dirt collects. *(Hincapie, 2017)*

We looked at vacuum-form options and knew we wanted polystyrene to carve shapes but were considering either Jesmonite or Idenden for the main stone texture effect. Jesmonite is water-based, lightweight, fireproof and versatile in the finish options *(Jesmonite, 2025)*. Idenden is also water-based, fireproof, durable, flexible, wide range of finishes, and can be tinted *(Flints, Year Unknown)*. We went with Flintex which is a cheap alternative to Idenden.





Scenic Art Research: Metallic Paint and Polystyrene

Metallic paints are water-based acrylics, good for gilded elements in sets and metallic effects in props. They are flame retardant and can be mixed with other paints and retain their shine *(Massano, 2025)*.
Some people on Reddit recommended painting a base of the metallic paint and going over this with a tinted wash to achieve the colour you want *(Theguywhowilldo, 2023)*.
Polystyrene Carving: easy to cut with many things, hot wires and regular blades/knives/saws, but can be difficult to control the shape you're creating. When marking things out, if the surface is too soft, you can put down masking tape to mark on instead, creating a more solid surface.



All dust should be removed before glueing, gap filling glue and adhesive, such as expanding foam, works really well especially when the sides you're glueing don't sit flush against each other.
Coating with a protectant is important, we could possibly use idenden and scrimming on our polystyrene parts also. *(Neat, 2013)*

←*(Neat, 2013)*

Scenic Art Research

(Crabtree and Beudert, 2005, p. 212)
Preparing Plastics and Foam Plastics:

→ PVC resists water-based paints and most primers can flake off easily. A water-based contact cement will adhere. Similar to Idenden/Flintex, which we've decided to use, creating both texture and a primed surface.

→ Rigid Foam are materials such as Polystyrene/Styrofoam. Priming polystyrene can make it durable and strong, ready for stage use. You can coat the surface in a texture compound, like Idenden.

(Crabtree and Beudert, 2005, p. 221)
Sand for texture:
Sandbox Sand → coarse and pebble-like
Coastal Sand → finer and needs sieving
Sand can be painted with water-based paints

Scumbling technique →



(Cal State LA A&L Productions, 2020)

(Kirk, 2017)



← Idenden and sand mixed together to create this rough texture, painted over once dry.

(Crabtree and Beudert, 2005, p. 289)
Scumbling:
Scumbling is covering a surface in two or more colours of paint next to each other, using 'X' shaped brushstrokes. They can have a more sketched style or a smoothly blended quality. It can be done dry or wet.

Scenic Art Research

(Crabtree and Beudert, 2005, p. 313)
Stippling:
Stippling is light dabbing or dry brushing with the tip of your brush. Can create a fine texture but was also used for stencils before spraying was around. You can also use a bunched-up rag or a sponge with this technique.

(Crabtree and Beudert, 2005, p. 308)
Schlepitchka:
Feathers are used for the technique Schlepitchka, this is similar to marble technique finishes.



(Powers, 2017) ↗

The image above is an example of Schlepitchka being used to create the effect of distant hedges.



← *(Pecor, 2024)*
The image to the left is an example of distressing with paint.

(Crabtree and Beudert, 2005, p. 353)
Aging:
You can age surfaces with paint. Using grey, black, umbers, ochres, light grey hues. Some materials darken and yellow over time, whilst others become bleached and washed out. Understand how the material you're attempting to create would naturally age and how the dirt would gather and appear on it.

(Crabtree and Beudert, 2005, p. 295)
Washes:
Washes can soften harsher colours. Marble heavily relies on washes of colour to help build up the layers and suggestion of depth.

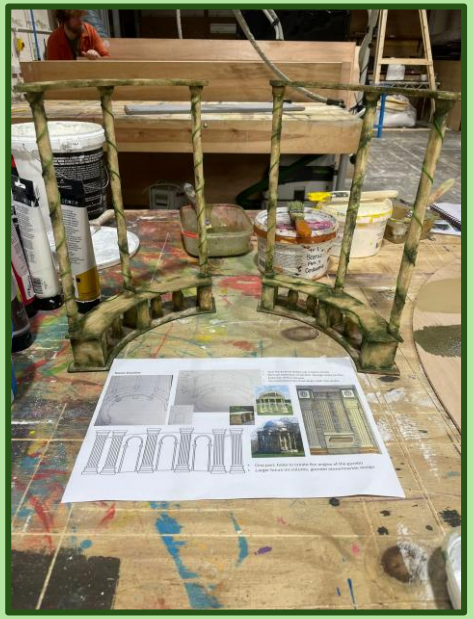
Schedule Updates and Planning

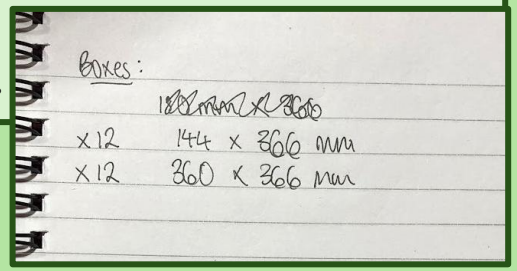
After the delays of the workshop being shut, our first session back after the wood, PVC, and polystyrene had arrived, we focussed on creating a clear and updated schedule. Moving the presentation to after the delivery date, giving us more time to build. We started by organising and tidying the workshop and our design room, so that we could start from a blank slate where we knew where everything was. We collected our models and mood boards and prepared the CAD for printing.

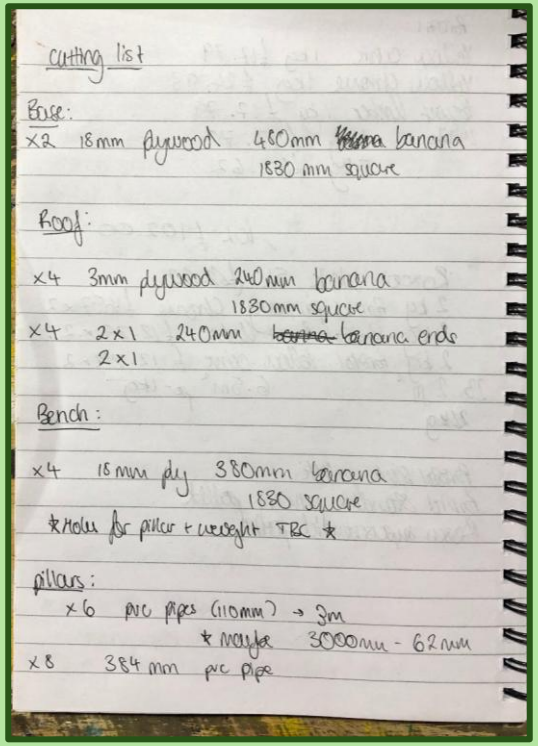




We now had a 1:10 scale person, at the height of 5'10". Alaya created these, printing out Maria and the Captain from the movie, alongside a separate figure of Maria. These helped put our Gazebo model into perspective and it was just how we had imagined. Me and Alice created a cutting list so that we were ready to start building. Breaking down our list into the sections of the Gazebo: Base, Bench, Roof, Pillars, Boxes, and eventually the Decorative Pillars. We used the model to help with this so that we didn't forget what we needed multiple of, given parts of our design were layered sheets of plywood on top of each other.







Paint Swatches and Ordering:













Before we could order any paint and scenic art materials, we needed to create samples and swatches of the paints we had looked at earlier in the week. Alice made swatches of the Bristol Silver paint from their metallic range, for the silver birch trees, to make them more visually interesting. Whilst me and Ant created samples for the sandstone of the Gazebo. I used Bristol Yellow Ochre, Burnt Umber, Turquoise, Chrome Yellow, and Raw Sienna, as well as ROSCO's white. After some mixing and experimenting, we found a close match to the model, as well as our reference images. I then created a sample of the dark moss colour, using the Bristol Turquoise, Chrome Yellow, and Burnt Umber. We then combined these samples with the Flintex and sand mixture to see how this looked with Bristol paints, using a scraper and sponge for texturing.





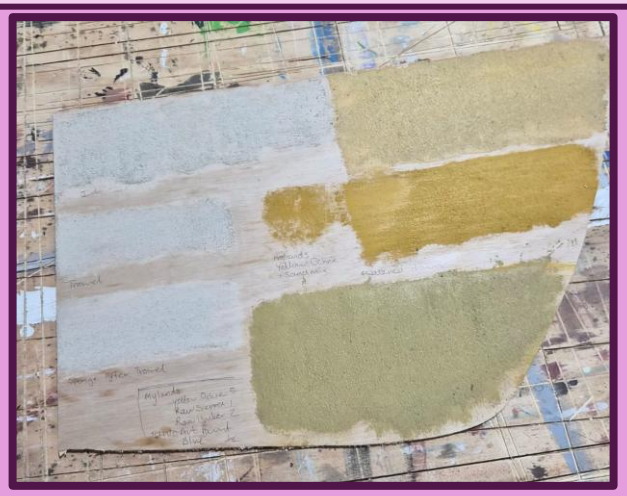
Paint Swatches and Ordering:

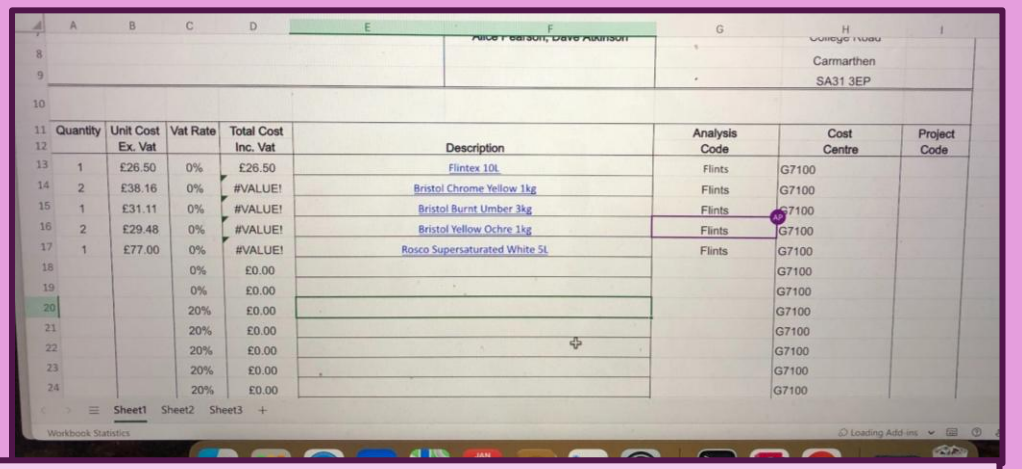


Meanwhile, Alaya created samples of the Flintex and sand mixture, along with Myland's powder pigments, specifically using Chrome Yellow. Creating side-by-side comparisons of different application techniques. This was to see if we could tint our texture as a base coat.









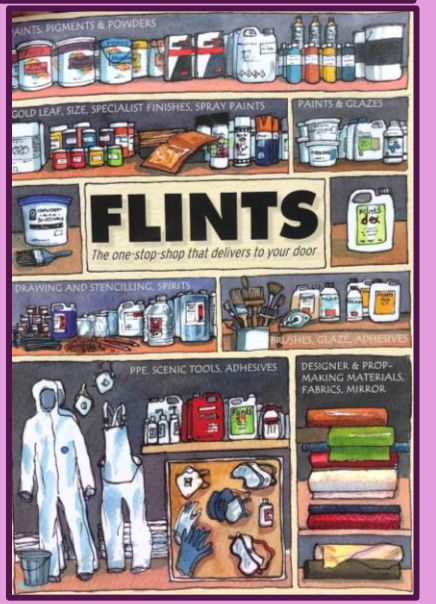
Quantity	Unit Cost Ex. Vat	Vat Rate	Total Cost Inc. Vat	Description	Analysis Code	Cost Centre	Project Code
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2	£38.16	0%	#VALUE!	Bristol Chrome Yellow 1kg	Flints	G7100	
1	£31.11	0%	#VALUE!	Bristol Burnt Umber 3kg	Flints	G7100	
2	£29.48	0%	#VALUE!	Bristol Yellow Ochre 1kg	Flints	G7100	
1	£77.00	0%	#VALUE!	Rosco Supersaturated White 5L	Flints	G7100	
		0%	£0.00			G7100	
		0%	£0.00			G7100	
		20%	£0.00			G7100	
		20%	£0.00			G7100	
		20%	£0.00			G7100	
		20%	£0.00			G7100	
		20%	£0.00			G7100	

After creating our samples, I created the order form for the paint needed, going through the Flint's catalogue to find the exact paints we used and how much we needed. We ordered 2kg of the Bristol Chrome Yellow, planning to use the Myland's Yellow Ochre we already had.



We combined our Bristol Burnt Umber order with the Bridge group to order 3kg that we could share. I included the links, prices, and quantity. Taking into account how much of the paint we already had in the paint store.





Building the Gazebo Base

In the afternoon, we were able to start on the base of the Gazebo,





which was 18mm plywood cut into a quarter of circle arc, with a width of 480mm. We started by laying 2 sheets of 18mm ply next to each other, checking they were square and lined up, we then drew a 1830mm square on them. We marked out the width of 480mm



and then had to draw the arc. In the prototype we used string, this time we got a 3mm scrap of ply and drilled a hole in the end, we then drilled another hole at 1350mm and 1830mm (the distance between these being 480mm), this was screwed into the square right at the corner (the centre of the circle. Sticking our pencil through the holes made a smooth arc. Me and Alaya



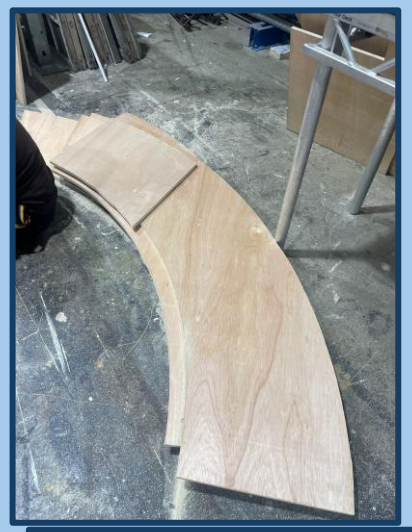


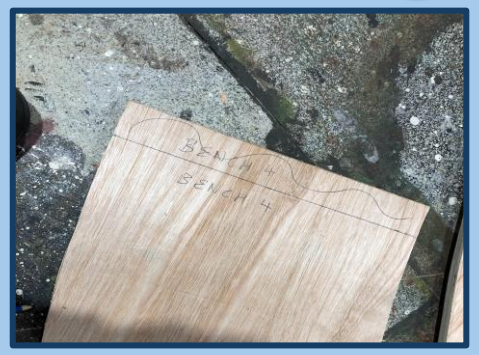


cut all the straight edges with a rail saw, whilst Alice and Ant cut the curved edges with a jigsaw, this saved a lot of time. I got the opportunity to cut one of the curved edges, I'm really grateful to be using a jigsaw in this project, as it's my least confident tool and I feel a lot more capable of using one now. We did this twice to create two base boards.



Building the Gazebo Bench and Roof













We finished two more base boards, using the same method, to layer these on top of each other. This will make the base stronger and more secure to stand on and take weight, we will flip the boards, so the joins aren't lined up.
We drew out the benches using the scrap pieces left from the bases, marking out a 1830mm square to drill into the corner, creating new arc holes in our scrap wood piece (380mm apart), cutting these with a jigsaw. Then marking 50mm in to make the bench sit within the base, cutting this with a rail saw.
Shape sorting to fit the benches and the roof parts on scrap pieces was quite confusing, as we wanted to make sure the angle of the arc was the same. We discussed order forms and adjusted them, taking out yellow ochre as we can use the Myland's powder, and reducing the amount of chrome yellow. We needed primer for the PVC, ordering Covent Garden Primer, and needed muslin to scrim the Idenden and polystyrene, which will make it stronger.

We drew out the roof parts in 3mm ply, with the same method to create the arc. We discussed whether the depth of the ply changes what blade you need on the jigsaw as I found it splintered a lot. But unfortunately, this was unavoidable.

I initially thought we would be wiggle pinning the separated arcs together, but after discussing this with Dave I learnt that this wouldn't work well on plywood as the pins don't have something to grip to in the layers- so they will be screwed straight into each other.

Problem Solving

I felt like my jigsaw skills got worse before they got better, and that I wasn't following the lines as well as the previous day, but as the day went on, I got more confident in taking my time with the cuts and got much better results.



We faced some issues and complications when cutting. Especially as jigsaws are freehanded and so there's a higher chance of going off the line or not having a smooth cut. The first issue we found was the blade not sitting exactly where the guide is, so we had to compensate by moving the guide over to the left of where we wanted to cut, this made it harder as it felt like guessing but we got more used to it. We tested on some smaller scraps to see exactly where the blade sat. We were able to correct certain cuts that went over the line rather than under the line but were left with some wobbles and curves that we hope to be able to sand down. The main issue we had was one of the scraps dropping, and the weight snapping the corner of the bench piece. This was because we didn't have enough people working on one thing to support the weight. Next time, even if we want to be efficient and get lots done, we need to prioritise having enough people to carry the weight, even if it means they have to stop what they're doing. We decided to have the broken corner be the bottom of the bench layer so that there's not a risk of an actor stepping on it.









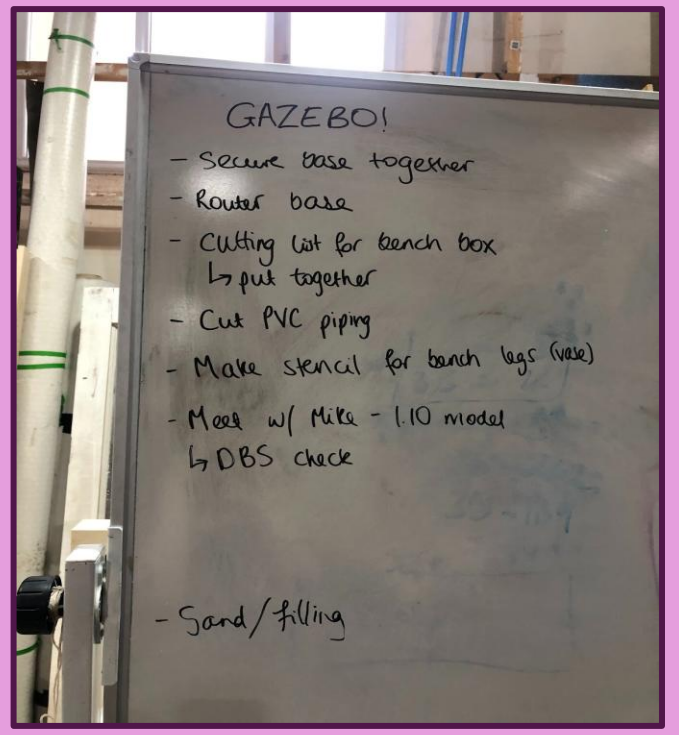




Problem Solving: Cones

We started the day by making a plan of what we wanted to get done, we realised we would need to order screws as we didn't have the right length, so we created a new order form for 30mm screws for our base and benches to be screwed together.

Putting our base and bench aside, we discussed needing more polystyrene for the cones on the pillars. Graham Sweet is a propmaker who sells polystyrene in cone form. We looked into these and then discussed using traffic cones or just regular plastic cones as these would be strong and sturdy, we realised we would have to buy 12 cones in order to make one cone per traffic cone, this would be too expensive. We then discussed using Plastazote to form the cones and possibly filling it with expanding foam. We needed expanding foam either way, so we added that to our Toolstation order with the screws.



We were happy with using Plastazote, but we needed to calculate how much we would need. We decided to change the design of the cone slightly, making it a steeper incline so that it would reduce the risk of actors stepping on it, and either breaking it or denting it. We knew we wanted them to be around 200mm tall, the top being 110mm to wrap around the PVC and the bottom would be around 180mm.

I tried to calculate the surface area of the cone and the surface area of the Plastazote sheets to figure out how many we needed to order, but when checking with Alaya I realised I had gotten the shape of the cone wrong. Alaya showed us a template website for paper crafts which is great for working out surface areas and making prototypes, she created a template for the cone which she then printed out. We finished cutting out the rest of the roof in 3mm plywood and began marking out the bench boxes on 18mm plywood.

Boxes

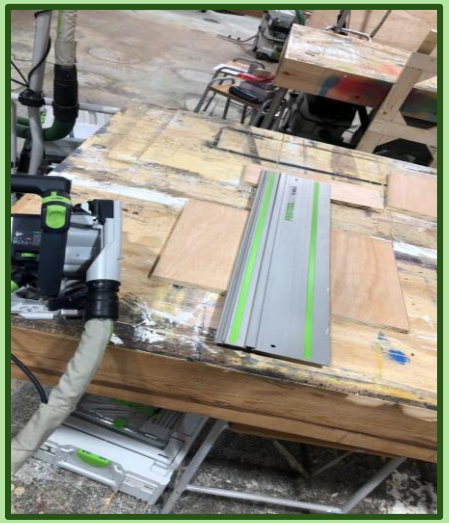
The images in the top right show the burn marks from the rail saw and some inconsistencies in the plywood.













We managed to save enough space to have one sheet of 3mm plywood left over. Moving onto the boxes, we began by squaring out all of our scraps, splitting into two groups, Alaya and Ant cutting out the 360x366mm and me and Alice cutting out the 144x366mm.

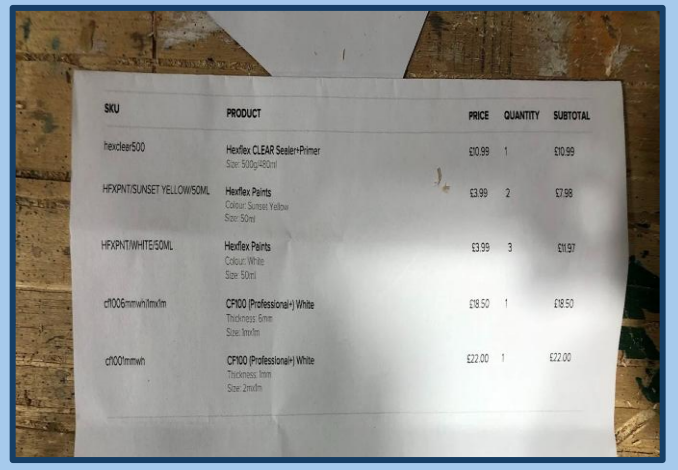




I had some problems with my first two cuts, as Alice was working on the order forms for the Plastazote, I found that the rail saw had a huge amount of resistance when cutting, having to push harder meant I kept pushing the rail off of the line, and so my cut was either incorrect or messy. I decided to pause on this until Alice was available to hold down the rail for me. We ended up changing rail saws as we realised the blade was probably too blunt and was creating burn marks on the inside of the plywood cut. We also swapped rails at one point as each cut was slightly wonky, despite being perfectly on the line, after swapping, this problem was solved.

Plastazote Problem Solving

A sheet of 6mm Plastazote was found from a previous project that we were able to use, we swapped to 6mm Plastazote for the rest of the order to match this. Alice used CAD to calculate that we could fit 4 cones on this sheet, as we needed 550x280mm squares for each cone. Calculating this from the template that Alaya had printed out. Alice then sourced a 2000x1000mm sheet of 6mm Plastazote for the other 8 cones needed, having 12 in total. This sheet we already had was from Polyprops, and the new order will be from FoamDirect, costing £30, but coming to £41 after shipping and tax. We managed to finish off the bench boxes, whilst Alaya and Ant began cutting out the plastazote using the stencil and experimenting with the size. Me and Alice began the cutting list for the Bench Legs/vases.

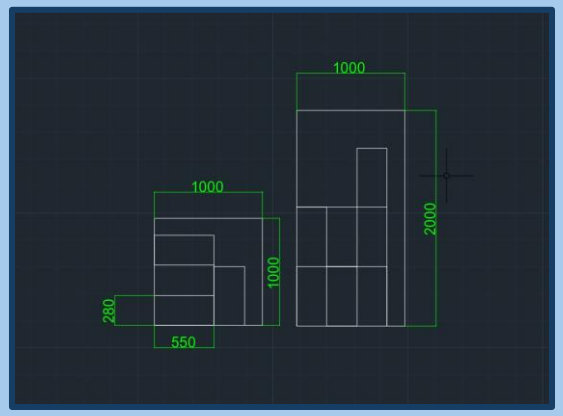


Polyprops order summary.

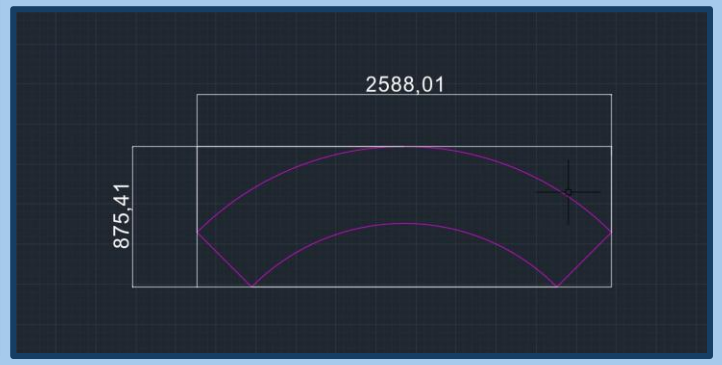


Alaya's template.

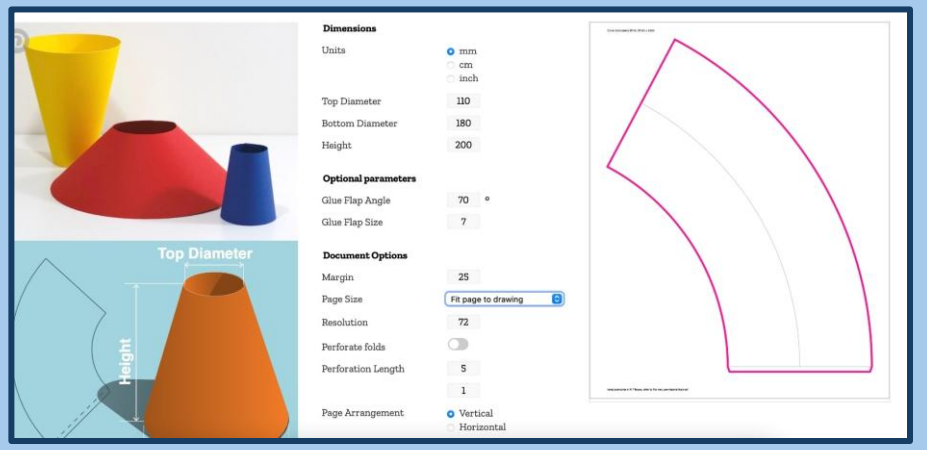
We made the decision not to cut holes in the lower layer of the bench. Although this makes it heavier, with the holes for the pillars, there wouldn't be much wood left to support someone standing on it, defeating the purpose of having two layers in the first place.



CAD drawings by Alice Pearson.



Template website used to create the cone stencil, printed on several sheets of A4 to get it to scale.



Cutting the PVC Vases (Balusters)

In the morning, whilst Ant and Alaya continued the Plastazote cones with a new template. Me and Alice cut all of the decorative vases out of one of the PVC tubes. The tubes were just over 3m, we cut off the top and the end as we needed flat surfaces, and we managed to cut 8x 366mm tubes out of one PVC pipe.

→ Trouble with the chop saw: the chop saw was not big enough to cut through the whole tube at once, so we had to turn it after cutting halfway. This meant some of our lines were jagged if the second cut wasn't lined up properly.







Assembling the Boxes

Once these were done, we considered routing the base board so it could be dragged. We decided not to do this yet, as we wanted to screw the base together first and were still waiting for the screws to arrive. In the meantime, we realised we could put the bench boxes together with staples. We tested the length of the staples, using 38mm, on two scrap pieces of 18mm plywood and it held together perfectly. So, we moved onto putting all of our prepared pieces together.





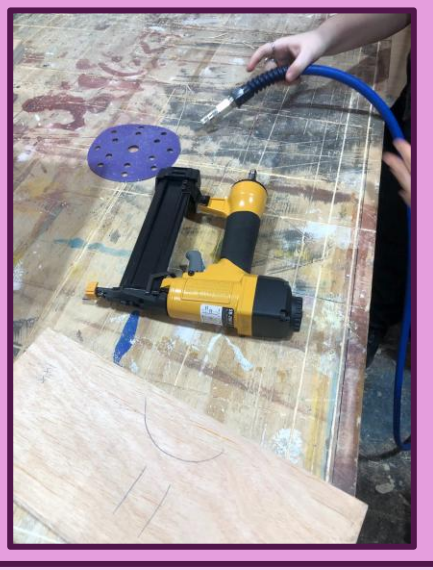


Assembling the Boxes

Whilst Ant and Alice did the first two, I marked lines on either side of the other box pieces so we could see where we needed to staple and where to line them up and we used a set square on each join to ensure they were square.









We were stapling against the grain to secure it but later on Dave suggested we staple with the grain, as the staples are long enough for this to be secure, but it means the staples will be less likely to split out of the sides. We had some issues with two of the staples doing this, so swapping our method meant a cleaner attachment.

We had some trouble with the pieces bowing, and as they were quite short pieces it was difficult to push them to be flush. We glued each side before stapling. Alice began sanding, with an electric sander, all of the finished boxes, as some were uneven in either their cut or their stapling. Before beginning, we sanded all of the rough edges of the plywood.





Me and Ant completed the boxes whilst Alice completed the sanding.





Problem with Base and Assembling the Base



Shape sorting our scrap wood to cut a new base board →

Problem base board on top of the correct ones →





Once the 30mm screws had arrived, me and Alice worked on screwing the base boards together. We had two layers of 18mm plywood for each base board, we knew we needed to flip the top layer, so that both joins sat on whole pieces of plywood that we could screw into. So, we started by lining up the boards to complete our centre lines, whilst doing this we started stacking them to check the sizes. This was when we found that one base board layer was almost 2cm too short. We were unsure how this happened but have assumed it must have been an accident from too many confusing lines drawn on the plywood before cutting.

Thankfully we still had plenty of scrap pieces of 18mm plywood left over. We found the biggest scrap and laid one of the correct base boards over it, we then pieced together a big enough shape with more scraps. We then traced around this and checked it would join correctly with its pairing piece. We labelled these joins clearly and began by rail sawing the straight edges off, checking the depth of the rail saw and the accuracy of the rail before beginning (to avoid any more mistakes and wastage). We then used the jigsaw to cut the shape out, testing this on a scrap to see how the blade aligned with the guide. We were then able to arrange the base boards on the floor. Flipping the top layer as previously mentioned. We labelled both plywood layers as ‘top’ and ‘bottom’ so as not to get confused when taking them apart to apply glue.

Assembling the Base







We applied wood glue to the joins of each layer and then the surface of the bottom layer, aligning the top layer to look its best at the front, due to inconsistencies with the jigsaw cutting. We found there were some overhangs that we planned to sand down. There was one major overhang that meant we decided to swap it to be the top layer and fill in the gap, so that the bottom piece was stable and safe. When beginning to screw them together, we initially made pilot holes, but with the wood too shallow for the pilot drill bit, we realised we didn't need to use pilot holes, as the plywood wouldn't split. So we continued without pilot holes.







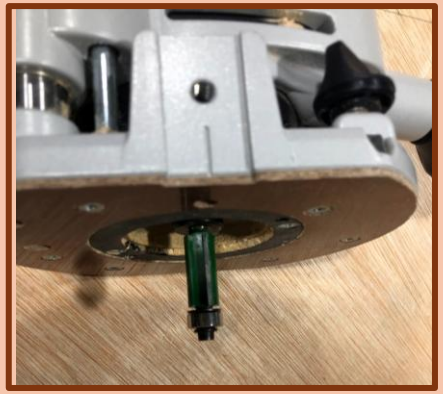
We screwed the corners in first, then worked our way around the middle parts to create a secure connection. I found it strange putting screws in without a pilot hole, but I think it helped me work on ensuring I'm positioning the screw straight and helping me learn to control direction as I was soon able to correct the angle of the screw without starting over. We soon had both base boards screwed together and were ready to router them.



Routing the Base Board

We wanted to router the bottom edge of each base board, so that stage crew could tilt the Gazebo slightly and drag it across the floor during scene changes. This would be easier than picking it up, as we can already tell it will be extremely heavy, with or without holes in the bench to make it lighter.

We first used a flush trim blade, which can be used to go round all of the edges and make them flush to each other. This was exactly what we needed as it would reduce the amount of sanding we had to do. The bearing at the bottom of the router blade is a guide for the blade itself and stops it cutting in too far, using the bottom layer of plywood as a guide. Routers have many interchangeable blades for different uses, such as one that can create a groove for a wire to sit in.







Once you've inserted the blade, you hold down a button to lock it whilst you tighten the bolt in place. There is also a handle that you can twist to help change the blade depth. We set the blade depth to cut into one 18mm ply layer, with the bearing following the layer beneath. The blade turns clockwise and so you want to cut with the blade turning into the wood rather than away, otherwise the router can run away from you. You usually figure this direction out from trial and error. When we first started, we had some trouble, until we realised, we were going in the wrong direction. After this the only problem we had was some screw heads not being flush enough with the wood, causing it to trip the Router up and causing it to jump about. Some of these we were able to tighten, but others we had to skip over. We then flipped the base board to flush trim the other 18mm layer. It was scary at first, using a router, but after a while I got used to it and I think it's a really cool tool and very satisfying and helpful to use.





Marble Sample Board

















We wanted to create a sample board for the marble. Me and Alice created this, starting by painting the base coat We created two versions of marble. Alice focussed on the browner toned lighter marble, whilst I focussed on the red toned darker marble. So that we could compare and see which style we liked more. I made my base coat out of Bristol Raw Sienna, Bristol Burnt Sienna, and Dulux Pepper Red. I did two coats to create an even base coat. We then mixed up a darker shade and a lighter shade for the scumbling (or wet blend) once the base had dried. I created my dark shade with the same initial colours plus black and Bristol Burnt Umber. I created the lighter shade with the dark shade plus Bristol Chrome Yellow, more Pepper Red, and lots of White emulsion. I tried to vary the direction of the brush strokes, but we found it difficult to blend them without merging them into one colour. I decided to create an even lighter shade and add this in, adding water to the board and roughly blending using a wiggle style brushstroke to mimic marble. We left these to dry but weren't sure if our technique has been effective.





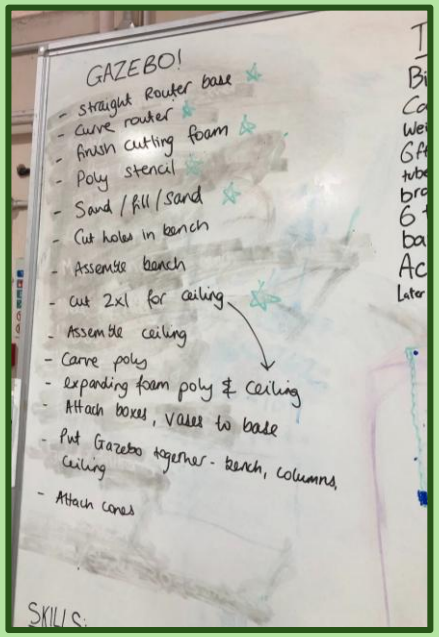
Routing the Base

We created a new list of everything we had to complete for construction, marking which ones we wanted to prioritise this day. Me and Alice completed the flush trim we started previously and then changed the router head to the large router for our corner cutting.









Marking which side of the base was the top and bottom, as we knew we wanted to only router the back bottom edge, to make it easier to drag on and off for scene changes (making the screws be the bottom side). We had some trouble changing the router head due to the button lock system but were eventually able to change it after watching some videos.













The flush edge trim made our base boards look a lot better. The router was a bit difficult at first, as we wanted to start at the edge, but it had a tendency to jump, I found I had to apply a lot of pressure to stop it from jumping. By the end of the routing, I was able to create a smooth corner. We also found the router caught on our screws and shaved them a bit, next time we will put the screws further in to avoid this.

Cones, Stencil, and Filling the Base

Whilst Alice went to buy more glue for the Plastazote cones, me and Alaya sanded down the two base boards with an electric sander. Smoothing out any wobbly edges and any sharp edges, as well as the surface of the joins so that they were flush for filling. I then began filling one base board, using Polyfilla and a metal scraper, I filled the joins, and any uneven parts, smoothing it out with a metal scraper. The second base board had a large gap that we needed to fill, this was the overhang I mentioned earlier. We secured a long piece of 3mm plywood scrap to the base with clamps to create a temporary wall. I then filled this with Polyfilla and left it to dry.

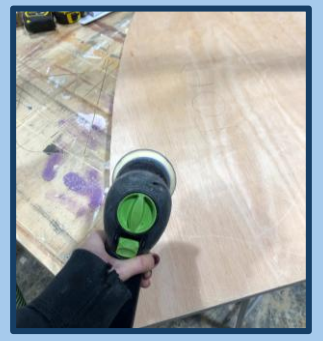


















Once the cones had been glued with the Impact Adhesive, Alaya moved onto making a stencil for our polystyrene vases. Using Ant's outline of the vase design, Alaya drew this onto 3mm plywood, and cut it out with a jigsaw, creating a sandwich-like structure with an 18mm piece in between, allowing us to later on stencil this design out of the polystyrene blocks.



Marble Sample Continued + Box Frame

Whilst Alaya was working on the Plastazote cones, and Alice was finishing the filling, I worked more on the Marble sample board. I mixed up a lighter shade for the red toned side with Raw Sienna, Burnt Sienna, Pepper Red, Chrome Yellow, and White. I stippled this onto the board with a dry sponge that had texture cut into it. I was really happy with this effect. For the brown toned side, I mixed a darker shade with Burnt Umber, Raw Umber, Chrome Yellow, and White. I stippled this on with a wet sponge. I didn't like this effect as much as I felt the water made it splodge with little control. Once dry I mixed an even lighter shade for the red toned side, making it more orange like the reference image, I used more Chrome Yellow and White. I did the same for the other side adding the same colours to lighten it.

Placing the PVC tubes into the boxes, we found two pieces of 18mm plywood on either side secured it, with some 2x1 cut down to 144mm to make a tight square for the PVC pillars to sit in, stopping them from wobbling inside the boxes. The plywood will be stapled in, and the 2x1 will be screwed in. Dave helped us cut these pieces of wood ready for the next day.

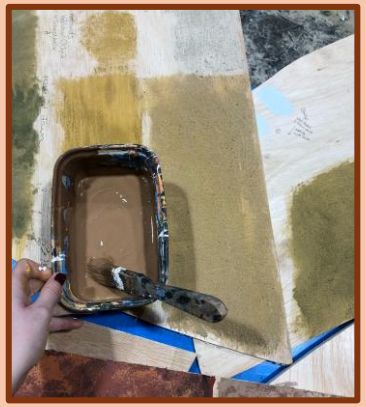




Image of the PVC pipe sitting inside the frame, although the pipe will be towards the back of the box. →







I compared the samples of paint to the initial sample board we made for the sandstone shade. We decided to go with the contrasting marble but more orange than red.

Ceiling Frame

Me and Alice moved onto the ceiling pieces. We realised that we needed to cut the ceiling plywood down more, like we had with the bench, as it sits inside the base and not flush with it. We decided to lay the ceiling pieces on top of the bench pieces until it was flush with the back and then mark where the excess was on either side. I then cut all of these pieces down with a rail saw, whilst Alice began cutting 2x1 into 600mm pieces.





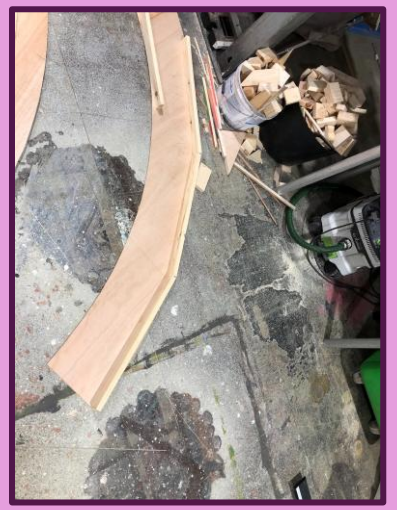
Once laying out these 600mm pieces, we realised we should make smaller ones for the front of the curve as it's shorter. In the end, we found more of a rhythm of using scraps and cutting pieces down when needed.



We needed to mitre the joins of these 2x1 to create a stronger and smoother join. We placed our first two pieces of 2x1 on the plywood arc, positioned so there was no overhang, and used an angle finder to calculate the mitre angle. Our first angle was 162-degrees, if you subtract 162 from 180 you get 18, divide this by 2, and are mitre angle was 9-degrees.







Ceiling Frame

We found it very confusing at first when trying to figure out what direction we needed the wood to sit in the chop saw, in order to cut the direction that we needed. After a while we felt more comfortable doing this, marking the direction on the wood before removing it from our ceiling board made it easier. We also realised there was a mitre button on the angle finder, saving us time calculating each one.





After each piece was cut and mitred, I stencilled around each piece and labelled the 2x1 and the marked-out space on the 3mm plywood alphabetically, to avoid future confusion. We managed to get the whole frame cut out, needing to complete the toggles and the second ceiling piece next.



Me and Alice began measuring and cutting the 2x1 frame for the second ceiling piece, using the same method as before and working faster as we were more comfortable with it. Whilst Alaya fixed the filler on the large gap, as when we pulled our temporary wall away there were holes in it.



Front Edge:
Angle of A to B = 162
Angle of B to C = 171
Angle of C to D = 162
Angle of D to E = 180
Angle of E to F = 158

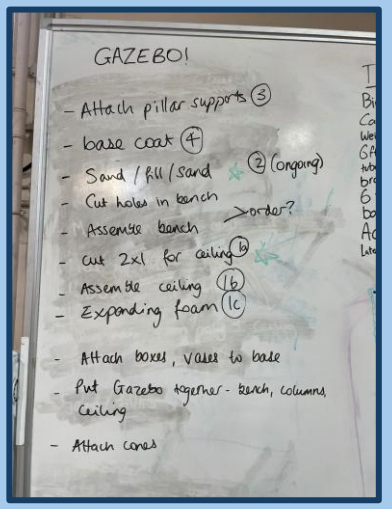


Back Edge:
Angle of G to H = 166
Angle of H to I = 165
Angle of I to J = 161
Angle of J to K = 163

Ceiling and Box Frames

Me and Alice then began stapling the 2x1 frame to the plywood, as we thought it would be best to secure it down before we measured the toggles. We used 12mm staples at first, later switching to 25mm, both measurements were fine, but we wanted to use the larger ones to secure the joins of the 2x1 to each other, so it made more sense to stick to one size staple the whole time.









Screw Join



Staple Join



We were able to screw some of the joins that would be hidden on the inside, but the outer ones needed to be more subtle, this was when we stapled them. We made sure we were working against the grain. We stapled each end down, working upside down, then flipped it over and drew a straight line as a guide for where to place the rest of the staples.

As mentioned previously, we used two 18mm plywood pieces either side of the pillar, with bits of 3x1 cut down to 144mm to secure the pillar, creating a frame within the box. We checked the CAD drawing and decided to push the frame right to the back, removing the 3x1 on one side and only having it on the other. Alaya put these frames together with screws, then slid them into the boxes, stapling them to the box.

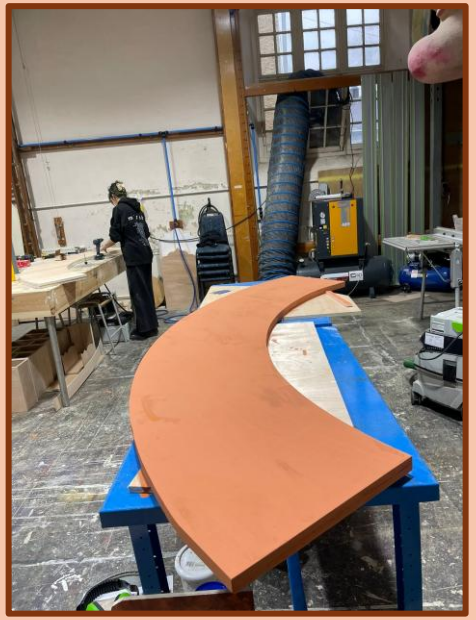




Base Coat on Base Board

Whilst Alice finished off stapling the ceiling frame, me and Alaya created the base coat for the gazebo bases. We wanted to paint the marble effect onto the base before attaching the boxes so that it looked like a whole piece of marble.

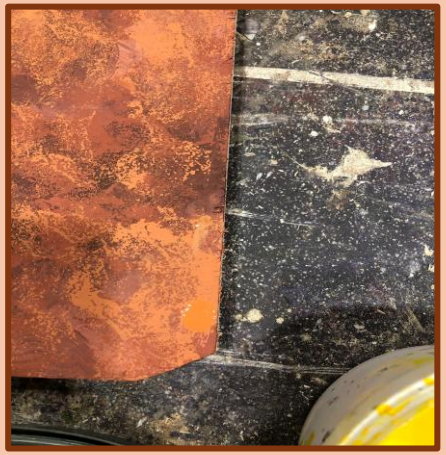












Based off of the marble sample board me and Alice created, we liked the contrasting design of the red toned marble, but we wanted it to be lighter and more burnt orange undertones than burgundy red undertones. We used the same colours I used for the sponging layer, Raw Sienna, Burnt Sienna, Pepper Red, Chrome Yellow, and White. The only difference being that we used Myland's powder Raw Sienna. We had some trouble at first as we added too much water to the powder and created more of a wash, so we added more of each colour to thicken it up. After playing around with the orange and red ratio and swatching it on the sample board as well as the printed-out references, we were happy with the shade and painted a layer on the base boards with large flat liner brushes.

Toggles

Alaya and Alice worked on attaching the bench layers together, as we discussed whether it would be easier to cut the pillar holes separately or joined, and realised it didn't make too much of a difference. Whilst they worked on that, I worked on the toggles for the ceiling pieces.

I first marked out where each pillar would go, as we couldn't have a toggle where a pillar was. I measured a 180mm box on either side of the ceiling, as well as a 180mm box in the centre of the arc (measuring 90mm out from the centre line), creating boxed off spaces where I knew no toggles could go. I measured out the arc and calculated I would need 6 toggles in total (needing to be a maximum of 600mm apart), I would have needed less but the centre line was out of bounds, and certain toggles collided with screws, so I made sure to go below 600mm distance in these cases.







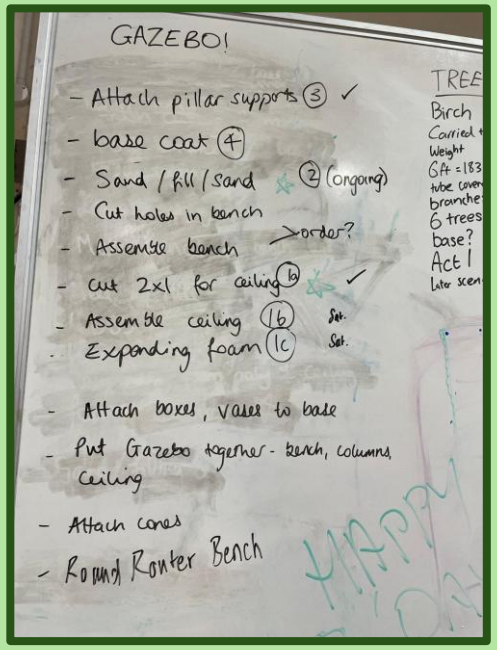


As each frame piece was at different angles, the 2x1 toggles would also need to be mitred. I struggled at first because there wasn't an exact way that I could measure the angle that I needed to mitre the 2x1 by. I started by measuring an excess of what I needed, chopping it straight on the chop saw. I then laid this on top of where it would go and I marked out a straight line with a ruler, lining up the ruler with the angle of the frame piece it sat on. I then played around with the angle of the chop saw until it lined up with this line. As the angles were so small, I found it easier to draw an exaggerated line right next to my actual line, so that I knew which direction to alter the chop saw. After a few wrong pieces, I managed to get the hang of it and felt quite comfortable and confident with this method. I managed to get all of the toggles cut out for both ceiling pieces. I drew around and labelled each piece, as this method worked really well on the frame and helped us not get confused.

Weekend Work

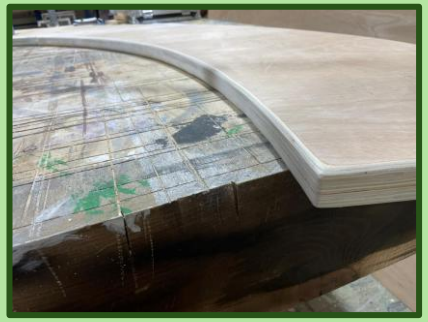
In the morning, me and Alice started off by screwing in all of the toggles, using 40mm screws, with two on each side of the toggle. At one point the drill bit snapped and got stuck in the wood, we were able to get it out with a hammer and some pliers. We then stapled the top 3mm plywood over the toggles, using 12mm staples.

Whilst Alaya sanded down the filled gap on the base board and painted a second coat on each base, Alice continued routing the benches, so as to make them look more like stone benches usually do with curved edges. I began filling the ceiling piece with expanding foam. I lay down some dust sheets and stood each roof piece on its side. Wearing gloves and eye protection, I first practised on a scrap piece of wood, shaking the foam can and dampening the surface with a spray bottle of water. I then filled the gaps evenly and left it to dry. I cleaned the can and outside of the gun by spraying acetone on it and wiping with a cloth, as we were missing the spray attachment for the gun cleaner can. I then attached this can to the gun and sprayed it through the gun until the solution came out clear.



















Layering the Marble

I then moved onto adding layers to the base boards marbling effect. I started by mixing up a light colour and a dark colour. I used Myland's Raw Sienna, Bristol Burnt Sienna, Dulux Pepper Red, Bristol Chrome Yellow, and white emulsion. For the lighter shade I added a lot of white and yellow to get the beige shade I wanted with an orange tint to it. For the darker shade I used the same colours but a lot less white and more Burnt Sienna. I swatched these on the sample boards we had and the reference images, adjusting them until I was happy.

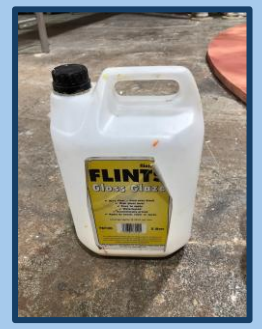














I then began the scumbling technique, working with two wide flat liners for the two shades. I applied patches of the colours randomly on the board, taking off the excess on the brush before I blended them together. This went a lot better than the sample board, which blended into one colour. I think our mistake was working on such a small surface with so much paint. I made sure to blend into the sides of the base boards also for consistency. I was really happy with how this came out. I then did the same on the second base board. I had to go over the second board as when mixing up more of the colours I watered down the dark shade too much and it wasn't strong enough to make a difference when blended. I then put a layer of Flints Gloss Glaze over the scumbling, to add depth for when we started the sponging.

Weekend Work: Marble

I wanted to put a layer of tinted glaze on the first base, as the marbling advice in books and online talk about layered washes mixed with glaze to add depth and shine to the marble. I found a Flints Gloss Glaze and I mixed this with the shades I had, watering it down slightly. I did some test strips on the sample boards and I hated how it came out a lot. I found it difficult to find the right shade to layer over the top, and the glaze appeared too thick and ruined the work underneath. So, I stuck with a clear gloss glaze, although when it dried it didn't look very glossy.











After the glaze was dry, me and Alice added the next layer. Stippling/sponging a lighter shade onto it. I mixed more chrome yellow into the lighter scumbling shade and made a more orange version of it. We then sponged this onto the surface with natural sponges, as we wanted the random and interesting texture. We made sure we weren't creating a pattern with our marks and moved the sponge around at different angles to break up uniformity, we then swapped places and went over each other's work to make it even more random.





Weekend Work





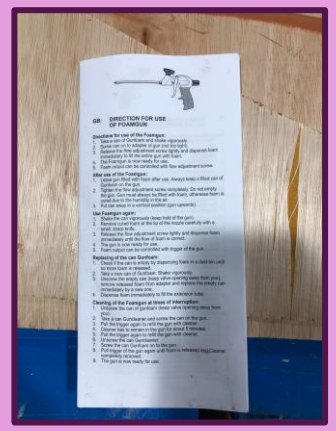














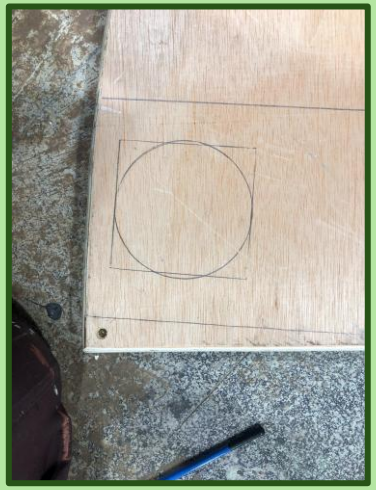

Whilst I was painting, Alaya carved the dry expanding foam down and filled the underside of both ceiling pieces, she then carved these off once dry. The next day, Alice painted a layer of clear gloss glaze over the second base board and mixed up a darker shade for the next sponging layer. She used the dark scumbling colour and mixed burnt umber and black into it to get a dark brown. I think the result looks incredible and the layers being built up are really effective. I came in once those were dry to sponge the light shade onto the second board and put a layer of glaze onto the first board. I went in again once those were dry to do the dark sponge layer, and later again to put a layer of glaze. Now both base boards are at the same point and dry for Monday, we are waiting for the feathers to arrive for the next layer.

Bench Holes

As we were still waiting on the polystyrene to arrive, we moved onto cutting the holes in the bench and ceiling for the pillars to go through.

We marked out where the boxes sat on the base board, measuring equal distances and adjusting for any inconsistencies our jigsaw cutting had made. We then placed the bench on top of the boxes and marked where they sat underneath. We flipped the bench upside down onto the floor and placed the boxes on top, drawing around the frame inside these boxes and placing a PVC tube in these squares to trace around for the hole to be cut.

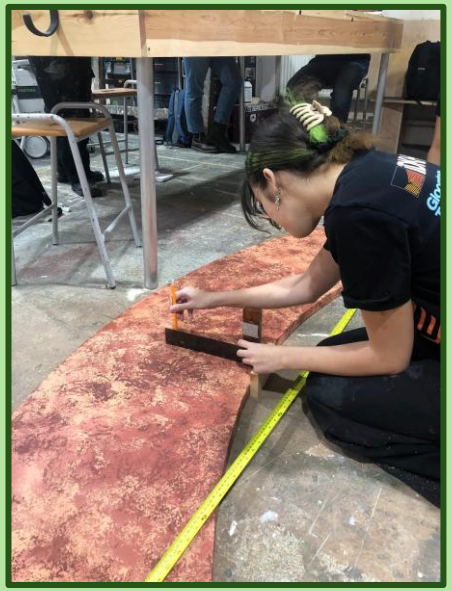














We did this for both benches, deciding to wait before we marked the ceiling holes until we could assemble the gazebo so that we could see how the roof lined up with the rest. Alaya and Ant moved onto cutting the holes out, drilling a hole first and then going in with the jigsaw.

Marble: Veins

Me and Alice moved onto the veining for the marble. We found peacock feathers that were already in the store cupboard, as we were still waiting on the feathers we had ordered. I poured some of the light shade, we had used for sponging, into a tray and mixed chrome yellow and lots of white with it. We then practiced on the sample board and found it didn't look quite right, but when we painted a layer of water down first, the veins blended more and looked closer to the reference image we had.





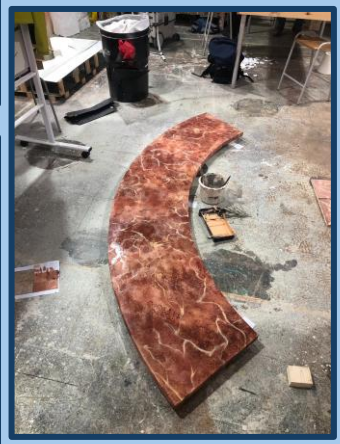




So, we painted a wet layer on the base boards and went in with the feathers for our veining. Making sure to swap sides after a little while to avoid making patterns. We also made sure to do veining on the sides of the base for consistency.











Once this layer had dried, we went over it again with another wet layer and more of the same colour, going over any parts that were quite faint due to too much water.

PVC Pillars

Whilst the marble effect dried, we moved onto cutting down the PVC pipes for the pillar sizes. We laid them all out and measured them, they were all just over 10 feet. Both ends of the pipe has bumps and curves in them. So, we started by squaring off one end and then measuring to see how much length we had left. We knew we wanted the whole structure to be 10 feet and that 3m was around 50mm less than 10feet. The roof was 50mm wide, so we wanted to cut the pillars to be 3m. But because they sit on top of the base, we needed to subtract 36mm from this.









We cut the pillars down to 2964mm. Due to a cutting error when using the chop saw, one of the pillars ended up being 2960, so we recut all the others to match this. We later realised that the pillars don't sit underneath the roof, they sit slightly inside the roof, so we had cut them too short either way. But it's better for the gazebo to be less than 10 feet rather than more than, as we had discussed 10 feet as the total with the production manager, and so any higher might have impacted other set pieces or lighting plans.

Ceiling Holes

Me and Alice then decided to try to mark out the roof holes, whilst Ant and Alaya were still working on the bench holes.

We laid out the bench and marked the centre point, the total width was 2435mm, the centre point being at 1215mm. The total width of the roof was 2450mm, so the centre point was 1225mm.











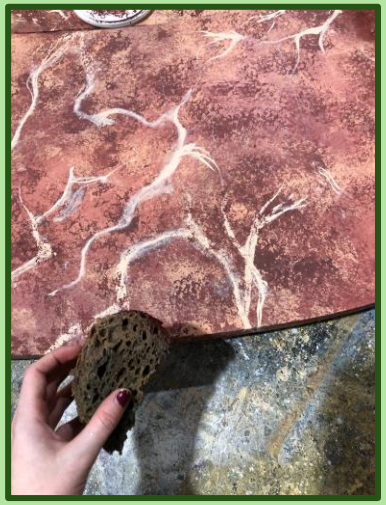
We then placed the balusters in the bench holes and placed the roof on top of these.

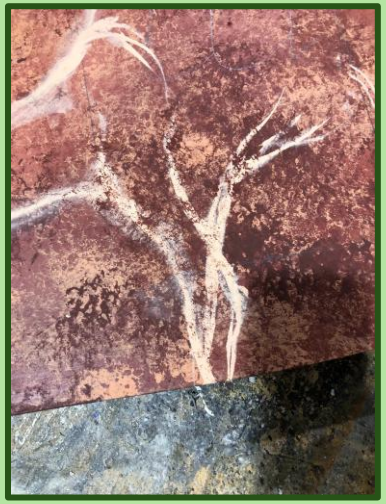
So, we left this for the next day. Whilst me and Alice continued the marbling, Ant and Alaya cut out squares to secure the balusters into, cutting out 16 plywood pieces that were 70x80mm, for both the top and bottom of the balusters (which there are 8 of).

We used the balusters because we thought that it was more likely to be straight than if we used the larger 3m pillars (which could lean). It also meant that we could trace underneath the roof a lot easier. We lined up the centre points using a large set square. But unfortunately, the roof is flush with the base, meaning it overhangs from the bench. We couldn't find an accurate way of ensuring this, without including the base in the marking out (which was not dry or complete yet).

Marble: Toning it Down

Me and Alice wanted to sponge over certain parts of the veining, in order to tone some sections down and soften any patterns we had accidentally created. We first went and stood at the back of the workshop to see what it looked like from a distance and from the audience's perspective.













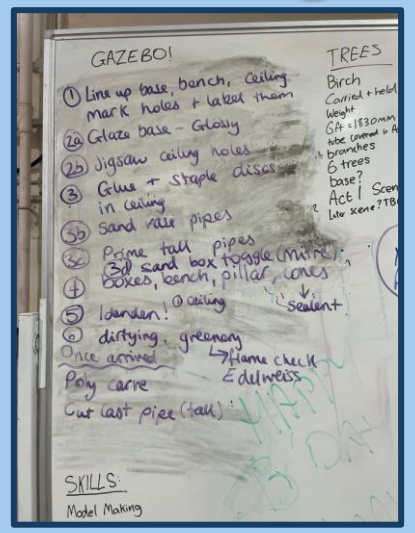
We then used the dark sponging shade which we had kept, going in with natural sponges, making sure to dab off any excess paint onto the sample board as we wanted to do a very light and minimal layer effect. Whilst this was drying, we went and bought some paintbrushes, as the next layer needed very small and precise flat edged fitches.

I mixed the veining shade into white emulsion to get it to a very light creamy colour. We then went into our veins on the board with this shade using small brushes, after practising on the sample board. We made sure not to highlight large sections so as not to make it too overwhelming. In between each layer, we had been doing coats of gloss glaze, as my research had suggested this for added depth and shine at the end. Unfortunately, the gloss glaze we had didn't produce a glossy effect. So, we decided to try a new brand of glaze the next day.



Ceiling Holes and Gloss Glaze

We started by updating our to-do list. Beginning with lining up the base, bench, and boxes so that we could mark out the ceiling.







We lined up the boxes with our marks and inserted the smaller PVC pipes into the inner frame, we then slotted the bench on top, adjusting the boxes where necessary. We got all of the pipes to the same height by used two pieces of wood , this was Alaya's idea and was a lot quicker than measuring each pole.







We then sat the roof on top and labelled it, so we knew which roof piece was for which bench and base. We got it flush with the base using a large bit of wood, adjusting so that the pipes sat underneath it. We did the same with the next roof, but we had a problem where we realised that they didn't sit inside the toggles that I had put on the ends, as the roof was smaller than we realised.







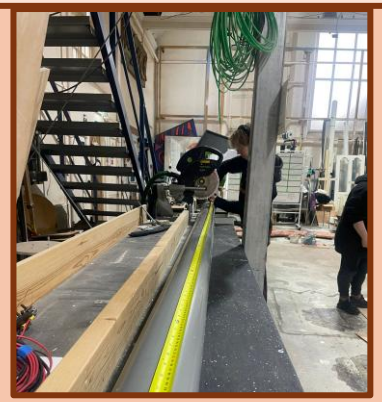
Whilst Alaya and Ant began cutting the holes out of the roof, me and Alice put a Myland's Mylac Gloss glaze on the marble bases. It was decided that they would cut through the toggles with the jigsaw and any gaps would be filled with expanding foam. This was done with a jigsaw blade specially cut to half the size, as we only wanted to cut through one side of the roof.

Pillars and Balusters









Whilst that was drying, me and Alice cut down the last pillar to 2960mm, as it had just arrived in the post. We then sanded down all 8 of the baluster PVC pipes with 120 sandpaper, so that the expanding foam would have something to grip to when we glued the polystyrene on.

We then primed the tall pillar PVC pipes with Covent Garden Primer, so that the Idenden and sand mixture would stick to it better. We rested these on stands, coated one side of the 6 poles, then once dry we turned them over and coated the other side. We then put another layer of the Myland's Mylac Gloss Glaze on the base boards before lunch.

After lunch, whilst Ant and Alaya finished cutting the roof holes and sanding down some of the box frames, so the pipes fit better, me and Alice screwed the wooden discs into the pillar PVC tubes (which were cut offs from the bench holes, so they fit perfectly inside the tubes). We used 40mm screws, using long 2x1 sticks and scrap wood to push the discs flush to the end. We drilled pilot holes and then inserted the screws, putting two screws in. We attached the squares to the balusters with 3x 40mm screws to ensure the block wouldn't spin.











Attaching Boxes to the Base





We then helped to line up the base and boxes and bench again, marking out where we were happy with them in a new coloured pencil (white). Ant and Alaya began screwing the boxes onto the base, whilst me and Alice continued the PVC tubes.

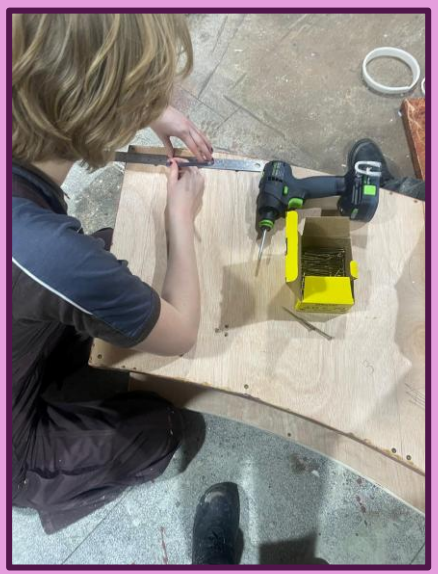
They drilled a pilot hole all the way through the base in the corners of the marked-out squares. They then laid the bench on the ground upside down, placed the boxes on top and the base on top of those, also upside down. They then lined up the boxes to the marked-out squares on the underside of the base and screwed these together with 70mm screws. We then flipped this over and decided to insert the poles so we could check this was correct before moving on.

We placed the bench on top, and one by one inserted the PVC pillars. This was quite difficult for some of them, especially as the primer had created a tacky texture, giving the pipe some grip. But eventually we got all of the pillars in. we then placed the Plastazote cones on top to see if they needed trimming. They did, so Alaya began working on this whilst we moved onto screwing the next base and boxes together. We had a problem with one of the boxes as it accidentally got swapped round for a different one. But we were able to make it work with some shifting and screwing at slight angles.









Attaching the Bench and Cones

Whilst Alice trimmed some of the balusters on the chop saw and began spacing them, by finding the midpoints and positioning them at equal distances before screwing them in at the top of the bench with three screws.













Me and Alice started the day with inserting the pillars into the second bench, we had to sand and hammer some of the inner frames as the pillars were getting caught on them. Once all the pillars were in, I began screwing the bench to the base, I used 70mm screws, screwing in the corners and then two in the middle, drawing a line with a ruler so I could see where the box underneath was.





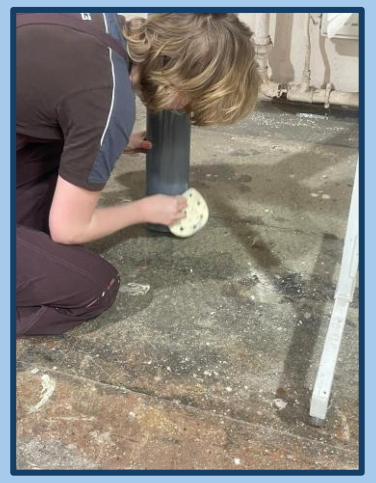
Me and Ant moved onto sealing the cones to the pillars. I applied the CT1 sealant to the tops of the cones and Ant went after me smoothing it down. We then decided to fill the cones with expanding foam and hold them in place, as some parts hung over the edge of the bench. Planning to use a heat gun on them if this didn't work. We lifted the pillars out of the bench and sanded them down. We then covered them in Vaseline and put them halfway in the bench. This was because we were having a lot of trouble getting them in and out.

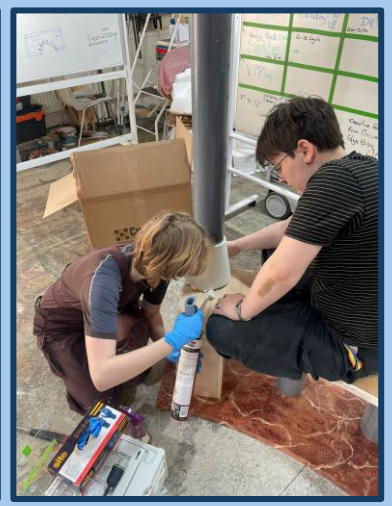
Attaching the Cones

I then sprayed the inside of the cone with water and then filled it with expanding foam. We had a lot of trouble with this as the expanding foam kept falling out but decided to keep doing it this way as it meant we could mould the cone to the bench shape.

We then pushed the pillars back down and held the cone in place until it set enough to move onto the next one. We soon realised that by doing this we were sticking the cones to the bench and we needed these to be separate. We decided we would have to carve it out with a knife later. We completed all of the other cones and Alice finished attaching all of the balusters. We will later have to flip the bench and screw the balusters in at the bottom.




After getting back from lunch, I put another strip of sealant on the bottom cones. We then got two ladders on either side of one half of the gazebo and placed the ceiling on top of the pillars. We had trouble with one side not fitting, so we removed it and sanded it down. It was then able to sit on the pillars properly. We marked a line on the pillar underneath the ceiling to show where to not texture and inserted the top cones over the pillars, placing the ceiling on after them.

Attaching the Cones and Carving the Polystyrene

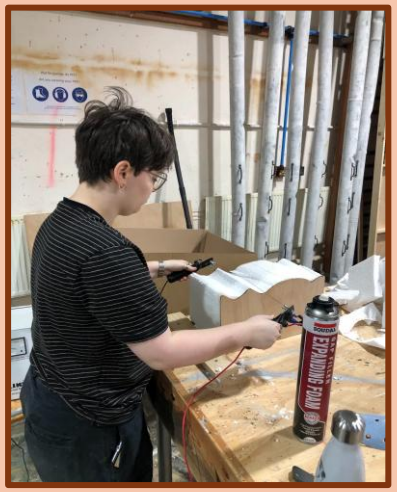
We decided to fill the top cones with expanding foam before sealing them this time. Me and Alice worked on filling the cones with expanding foam, spraying them with water and then spraying the foam in from the bottom whilst one person held it in place. We then taped the cone in place whilst the foam dried and repeated this with each one until all of the top cones were attached.





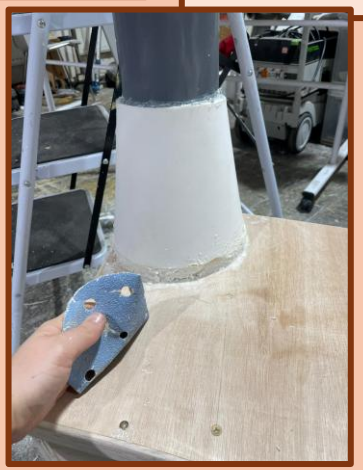






Whilst we were doing this, Ant carved out all of the polystyrene blocks using the stencil that Alaya had made previously, he used a hot wire to do this. Me and Alice were then able to carve away the dried foam on the bottom cones. We then cleaned up all of the excess and made a to-do list for tomorrow.









Texturing the Gazebo

In the morning, me and Alice came in early to carve off the excess expanding foam on the top cones and then apply sealant around them. We then carved through the top and bottom cones to disconnect them from the ceiling and bench. Removing the ceiling pieces, we prepared our Flintex and sand mixture.







Combining Flintex, sand, Myland's Raw Sienna powder, Myland's Yellow Ochre powder, white emulsion, Bristol Sky Blue, and a little bit of water, we adjusted the shade until it matched our sample board swatch. Deciding to make it less yellow. We then applied this to the top and sides of the ceiling pieces with metal scrapers. At first, we used sponges to create texture and to hide the scraper marks, but soon realised this wasn't achieving the sandstone effect we needed, as sandstone is very smooth. So, we smoothed this down with our scrapers and continued the rest of the texturing in a smoother style.







Whilst Ant and Alaya created a new template to carve out the inside of the polystyrene balusters, me and Alice began texturing the pillars and cones, using our fingers on the ridges of the cones for a better application. Ant and Alaya then glued the polystyrene to the PVC balusters using expanding foam and tape to hold them in place whilst they dried.









Texture

In the morning, we covered the underside of the ceiling in our texture mixture. Whilst Ant and Alaya carved the expanding foam off of the balusters, me and Alice mixed up the stone base colour to layer on top of the texture. We decided to make it a wash so that the base pigment of the texture can layer through it.



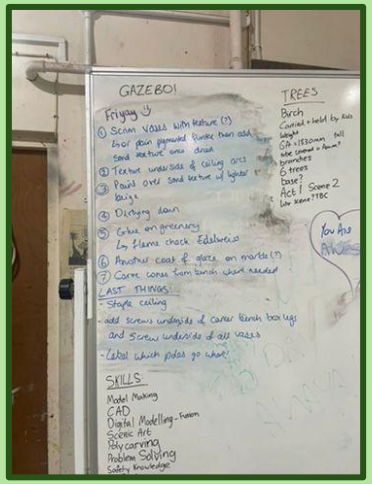




The final swatch of the stone wash →

We then worked together to complete the texturing on all of the pillars, the bench surface (and a margin underneath), and the boxes. Using a wet cloth to remove any drips onto the marble base board. We decided not to texture the bottom of the bench, as we could paint it instead.







We mixed up Bristol Burnt Umber, white emulsion, and Myland's Yellow Ochre powder. Adding to this, Bristol Chrome Yellow, Turquoise, and Myland's Raw Sienna. We then added various amounts of each colour with some water, making a large quantity. We swatched each version we made onto our sample boards to compare it. We initially wanted our colour to be less green but when we swatched it we decided it should be more green than the texture to cancel out the extremely yellow tones it had. We did some samples onto the actual gazebo to see how it looked and waited for it to dry.

Painting and Scrim

We then laid down plastic sheeting around the marble base, taping it down for security. We then began painting on our stone wash, starting at the top as it dripped down. Alaya and Ant then painted this onto the ceiling topside and sides, whilst me and Alice mixed more paint into our water to make a thicker coating which we painted on the underside of the benches. We then realised if we placed PVC pipe cutoffs into the holes of the ceiling, they could be flipped and we could paint the underside whilst the topside is still drying. We then waited for this and the baluster texturing to dry so that we could paint the balusters this stone colour and any patches we felt needed extra paint. After doing this we left the whole gazebo to dry overnight. I really love the cracked effect the texture developed after drying, as well as the way the wash sits in these cracks, I think it creates a really authentic stone effect. Although maybe not sandstone.

We then moved onto scrimming the balusters, using the same pigmented texture as the rest of the gazebo, we put a layer down then applied the muslin squares and painted over these with more texture, until they were all covered. This will make the polystyrene more solid and harder to damage.

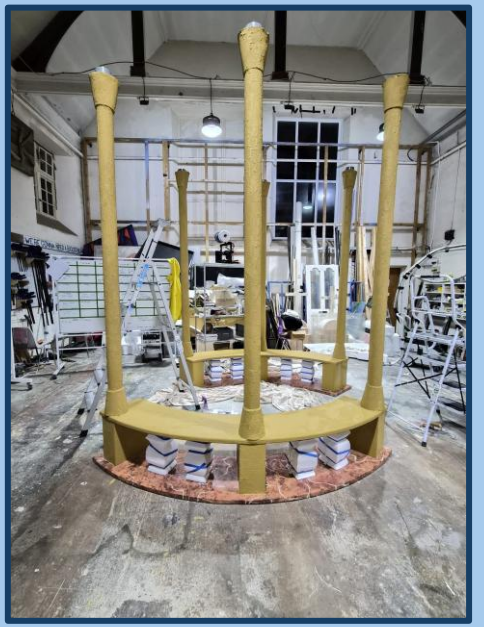






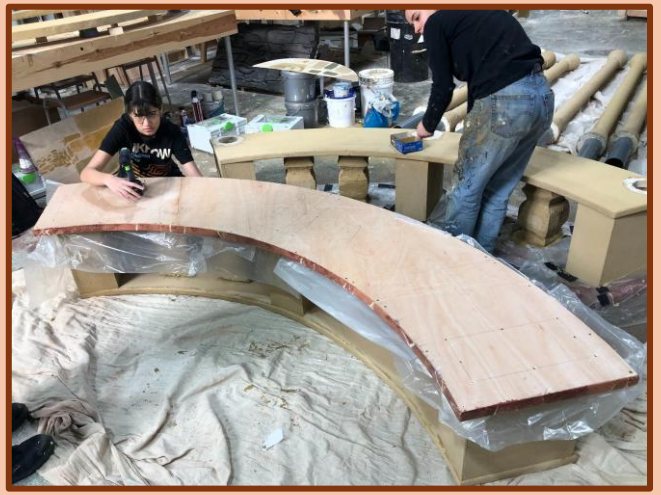


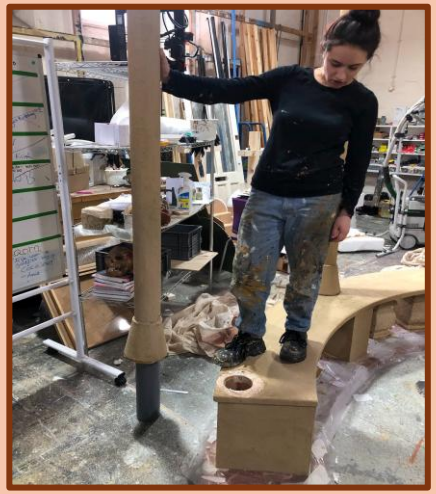




Dirtying Down the Gazebo

In the morning, we started by carving out the pillars at the bottom to disconnect them from the bench. We then took each pillar out and labelled the bench according to the symbols we had used for the ceiling and pillars. We flipped the benches upside down and inserted more screws underneath the box and underneath the balusters. We did the same to the next bench. Alice then went over the gaps the pillar had left with the stone shade from yesterday, so that if the pillars were put back in at a different angle, then there wouldn't be any wood visible.

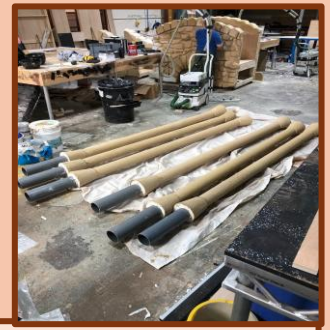


















Whilst this was drying, me and Ant mixed up the moss colour for dirtying down. I mixed Bristol Burnt Umber, Bristol Turquoise, and Bristol Chrome Yellow. We swatched this on the sample boards, adjusting until it matched our initial swatches. I then sponged this onto the Idenden sample and decided it would look better if it was thicker and if we layered a brown dirt colour on top. So, we mixed up a dirt colour using black emulsion and Bristol Burnt Umber, sampling this on the board also. Me and Alice began sponging this onto the ceiling pieces, swapping halfway so we didn't create any patterns. Once this was dry, I sponged on the dirt colour on top, making sure not to do too much and to use it only to enhance the depth and layers of dirt build up.

Dirtying Down the Gazebo

We then went in with the moss colour, using our reference images to sponge it into the cracks and the corners. Mainly focussing on the bench and where the pillars meet the ceiling, as this is where the majority of dirt and moss builds up- we were going for more of an algae look than a moss look, but I use the term moss to represent this. We also made sure to add some of this colour to the marble, only where the stone meets the marble, as marble doesn't grow moss/algae, and tends to stay quite clean due to its glossy nature. We added some sponging onto the pillars and a bit on the bench top so that they didn't look pristine compared to the rest of the gazebo.





We then inserted the pillars back into the benches, and placed the ceiling on top, we decided to turn some of the pillars so that there was no under-hang from the ceiling.















We left this to dry and after lunch I went over this with the dirt colour, whilst Ant and Alaya did some dry brushing of the stone colour onto the gazebo, and Alice toned down some of the moss where we had accidentally dripped it or had created too dark a patch. We left this to dry and wiped down the marble and painted another layer of Myland's Mylac Gloss Glaze onto it.

Final Touch Ups

In the morning, we focussed on building up more layers in the moss/algae and dirtying down. We mixed more Bristol Chrome Yellow into the moss green shade we already had, me and Alice sprayed this onto the boxes whilst Ant and Alaya wiped down the marble. I then went over the ceiling parts with this colour and a sponge, as it was difficult to get control with the spray especially when spraying upwards.














We then mixed a lighter shade of green with more Chrome Yellow and some yellow emulsion (as we were running out of Chrome Yellow) which we layered on top with a synthetic sponge, applying this in very small amounts. As our reference images had more bleached parts of the algae/moss, we wanted to include the almost yellow spots it developed. We mixed some of the green colour into what was left of the Chrome Yellow and went in with a Sash Brush, in even smaller amounts so as not to overpower it.

Meanwhile, Ant and Alaya created a dripping effect down the sides of the gazebo, as many old stone structures get water and dirt stains from rain constantly dripping down the side in a certain pattern. Once this was dry, I went over some parts in the dirt brown colour, sponging it along these drips to add more depth and lessen the grey colour of it.

Final Touch Ups

We first moved the gazebo and removed the dust sheets, turning it so that they sat how they would on stage, next to each other (this also prepared us for the presentation). We then began wrapping the ivy around the pillars, tying it off with fishing wire, making sure not to create any patterns with the ivy. We taped the ends underneath the bench to imply it was growing up from the ground. We left some pillars empty and some only had ivy growing halfway up. We then looked at it from a distance and decided we wanted to add some to the right-hand gazebo as it felt a lot emptier.

In the afternoon, we explored some of the old stone buildings around campus to see how moss and dirt had formed around them. We decided we were happy with how the dirtying down looked and moved onto dressing the gazebo with ivy and Edelweiss.















I then cut up the Edelweiss flowers and stuck them through the fishing wire in random places, bending them towards the audience. We then moved onto helping with the trees. Dave had cut down the PVC pipes to size and attached three handles onto them. He then put expanding foam around the bottom to mimic roots and bark. We painted another coat onto them, using a mixture of green and brown mixed into white emulsion, which was then mixed into the silver Bristol metallic shade. We painted this on in a horizontal style to mimic the bark.

Birch Trees and Presentation Prep

To finish up the trees we put a second coat of the off-white paint mixture on the other side of the trees and left this to dry. We then went over the expanding foam in a dark green. Once this was dry, we stuck moss to the expanding foam using a hot glue gun, covering up any parts where the white was showing through and any holes in the foam. We then mixed some Super Scenic Black paint into our dirt brown colour and dry brushed this onto the trees with small brushes, in a horizontal style to mimic the horizontal lenticels of Birch Trees. Whilst Alice and Ant went in with smaller brushes in the same colour, to recreate the eye shaped darker spots the trees tended to have on their bark.











To prepare for the presentation, we independently wrote up all of our thoughts on each question, we then divided the questions through who had the most to say for certain topics. Me and Alice took the first question, me and Ant took the second question, Ant and Alaya took the third, and Alice and Alaya took the last one. We went over each other's notes to see if we had missed anything we wanted to mention and made sure each person spoke about what they took a special interest in (for example, Fusion for Ant, CAD for Alice, the compass, cones, and polystyrene for Alaya, and the model and scenic art for me. We managed to have time for one run through before the final presentation.

Presentation

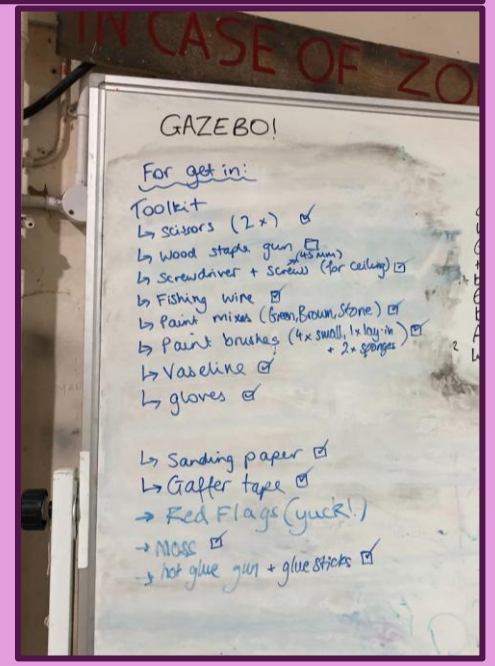


The style of the presentation was changed last minute, but I think it benefited all of us in the end. It was changed from a formal style presentation, like the ones we've done in previous modules, to a Q&A style talk. We were given one question per person the night before to prepare for, but multiple people were allowed to answer each question. I really liked this style for such a practical and hectic module, as it felt like we could focus on getting our set pieces complete to a standard we were happy with, without feeling like we weren't prioritising the presentation.

I also feel like it made the audience more comfortable with asking questions and helped us be more concise and specific on each question. I'm really happy with how the presentation went, especially as the audience were able to see the set in person, as previously it would have been after the get-in. I was glad that I got the opportunity to talk about the marble effect at the end with some of the first years, it felt quite rewarding to be able to achieve the marble effect in the first place and even more so to hear how realistic they felt it looked.







After the presentation we put together our tool kit for the get-in and show week, packing a box of scissors, fishing wire, tape, gloves, Vaseline, sanding paper, paint in three shades, paintbrushes, sponges, screws, a drill, moss, and the hot glue gun with spare glue sticks.





Delivering the Set

We started by breaking down the gazebo, taking off the roof pieces and the pillars. We then loaded the bench bases and roof pieces into the van, covering them in dust sheets to protect them, before lying the pillars and trees on top of them. We then loaded in our toolkit supplies for putting it back together in the space and for any touch-ups needed during the show week.

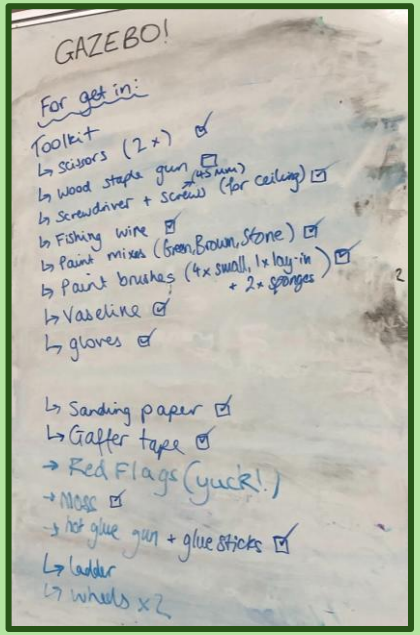
We then began cleaning the workshop, organising the scrap wood into what we could keep and what we should throw. Putting away everything and sweeping/hoovering the floors. As well as disassembling the prototype bench.

We headed down to the Lyric Theatre to unload the van, unfortunately I wasn't feeling well enough to complete the get-in and so I missed the unloading and assembling in the space. But fortunately, as I'm working on the show, I will still be able to see the Gazebo and Trees in the space and in the scenes, which I am really excited for.









Evaluation:

My favourite part of this module has been the experience gained and the process of creating something a lot larger in scale and more complex than I've ever worked on before. I really enjoyed the realism and scenic art of the module, as the previous module was in the style of German Expressionism, it felt a lot more rewarding and surreal to create the imitation of a gazebo rather than an exaggeration of something. Especially as I'm interested in scenic art as well as set design, it was great to explore and develop my painting skills, specifically learning how to create a marble effect. I found a lot of the construction process quite difficult, as I feel like I don't always have the right approach to problem solving construction elements, probably due to a lower level of knowledge around construction methods and possibilities. But I definitely feel that I've improved so much on my construction skills, especially reflecting on the last module, where I wanted to focus on developing my confidence and abilities in construction. I really feel like I've achieved this, even if I still have a long way to go. I feel more certain of myself in the workshop and more open to suggesting things and trying new things, before going to a lecturer for help. I think I need to improve upon my communication with the rest of the group as well as my communication to the clients. I felt that there was a lot of miscommunication during the construction process, especially as there were so many different parts to the Gazebo and the method we were using, as well as a lot of different sections being built at the same time. This meant it took more time than necessary to figure out what we were talking about and whether we were on the same page. In relation to the clients, I feel like I need more confidence when it comes to presenting our ideas and explaining them in detail. I would also like to improve on my Fusion and CAD skills even more. This was the first time I've ever tried Fusion, and although I was mainly watching (as there were a lack of devices with Fusion available on them) I felt like I learnt a lot of the basics and would really like to experiment with it by myself, in order to familiarise myself with it as well as to have it as a skill for the future.

Evaluation Continued:

I would also like to keep developing my CAD skills as there's so many aspects to it that I feel you don't discover until a specific project requires it, such as the construction lines that Alice used in creating the side view. In the future, I hope I can carry through the new confidence gained in the workshop so that I can use it to improve more on the technicality of the tools and how I use them, I also hope to take forward the scenic art knowledge I've gained on dirtying down and the layers you create with it, as well as the process of faux marble. I would also like to continue and build on my book research in construction methods and scenic art methods, as I felt like I learnt a lot from books before we began the construction, and it really helped and supported my work in the workshop. I am really proud of our whole class and our smaller group. I feel like we worked really hard to meet the deadline and solve anything that arose without becoming negative. I am also really proud of what we built, I feel like it looks better than I imagined it would, and I'm really impressed that we managed to create it so close to our original designs and models.


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