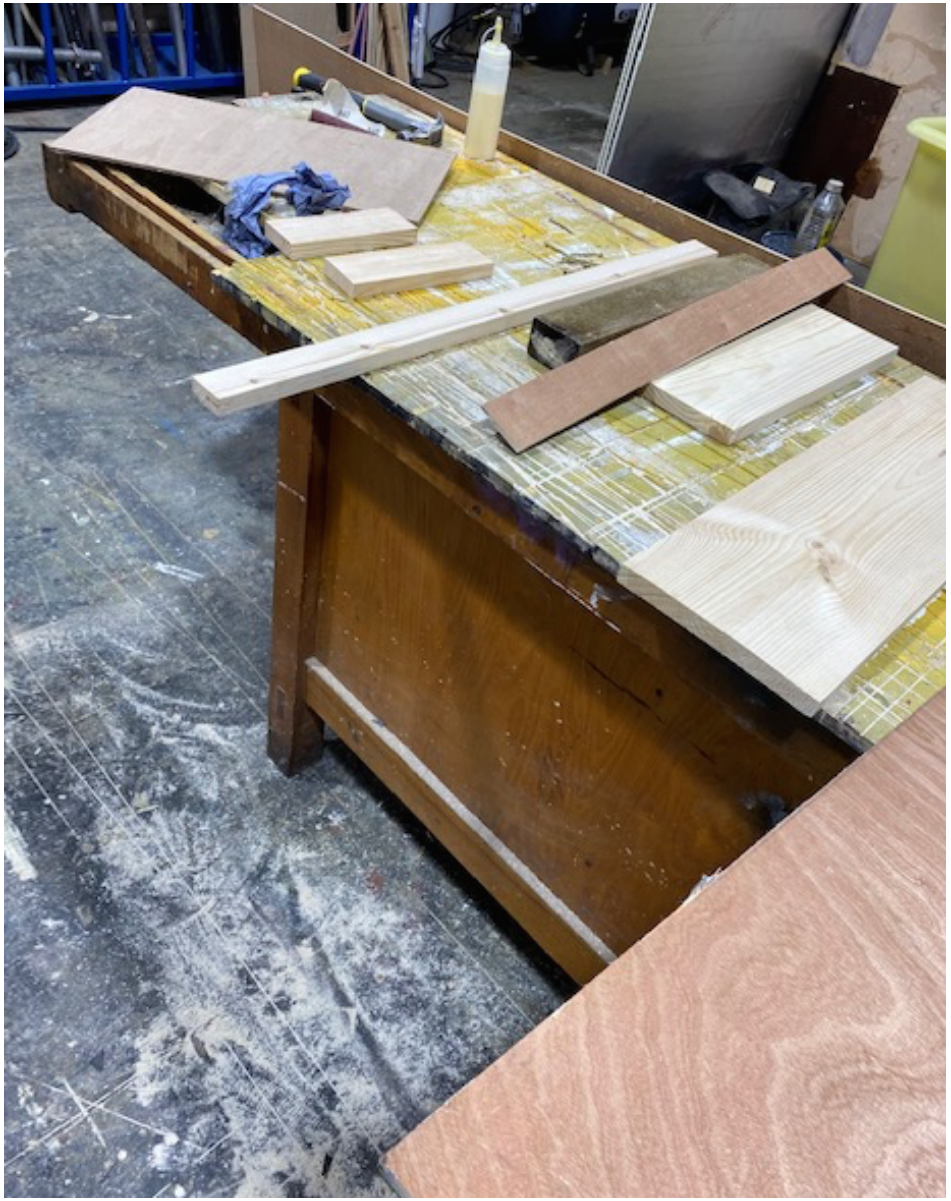
Scenic Construction

Caitlin Fox

2102955

Types Of Materials



PAR- 3x1mm wood
Ruff Saw- 3x2mm
Apereal & Metric- 2x1mm, 6x1mm, 8x1mm
Ply Wood- Soft, Red & White, Hard Wood, Marine, Birch Ply
Sheet Material- 8ft x 4ft= 2440 mm x 1220 mm
MDF- Very rarely used



Drills



The first tool that we were taught how to use was the drill. The first thing that we were taught that there are two types of uses for the drill. One is for drilling screws, the other is for drilling holes.

Drilling Screws
Setting 1- For drilling screws

I learned that the numbers of the drill indicate how deep the screws will go.

1- The shallowest
2- The deepest
I also learned that the thicker the wood, the bigger the screws required.



Drilling Holes
Setting 2- For drilling holes

This setting means less control so that the holes can be made. Drilling holes also requires different bits.
There are tree different types of drill parts with different shaped heads.

Spike- Wood
Pitch- Metal
Point- Wood & Metal

There is also a button that is pressed drilling and unscrewing.

Masonry- WallI was also able to learn the importance of pilot drilling and how it is a preferred skill within the industry as it shows employers that you know what you are doing. Pilot drilling is used so that the screw has a guide when drilling.

The drills must be handled properly with a firm old to ensure the accuracy of their use. The drills are to be held by the handle with both hands and pushed towards the wood to ensure the best possible use.







To gain a better understanding of how to use a drill, I was able to have a go at using it. I practised by drilling holes into a scrap piece of wood. I have had experiences using drills in the past so I found this task to be a fairly simple, however it allowed to practise my skills, and also learn some new knowledge of how to use this specific tool efficiently.

Rail Saw

The next tool that I was taught how to use was the rail saw.

I was told to mark on the wood where I want to cut. The rail saw then gets fit to the guide rail. Adjustments to the adjustment knobs can be made to ensure the saw can be moved easily.

The power and extractor then gets attached to the saw. The power must be turned off when completing this. The saw is connect to the extractor using the connect hose and the plug it cord. The plug it cord is connected to the saw using a quarter turn. The hose is then attached and then ensure that they are all attached securely.

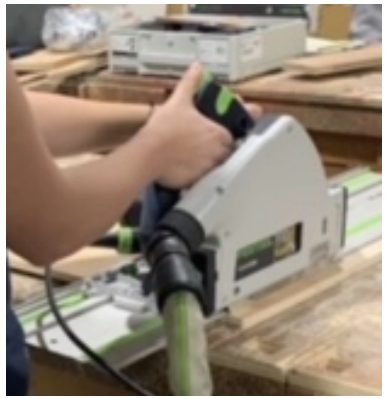
I was also made aware that the numbers on the blade indicate the depth of the blade. The blade will also go at its own pace as faster does not always mean better and it is also important to let the blade do all of the work. It is also important not to place the wood down when cutting and to start the machine and then drop the blade.

The blade is then activated by pressing the trigger and then releasing when pulling the main trigger. The press the saw down to cut the wood.

To gain experience with the rail saw, I was able to practise using it. At first I found it a bit nerve racking. This is because I had not used one before the session. However, once I was actually on the machine, I found that I the saw was very straight forward to use. I did have to go back over some of the cutting but overall I was able to cut an efficient line. This is something that I was glad to learn how to use.









Jigsaw



The next tool I was taught to use was the jigsaw.

The first step to using the jigsaw is to ensure that the correct blade is being used. To insert the blade simple insert and twist. The leaver is then pressed if the blade is to be ejected. Before cutting also make sure the splint guard is securely attached.

I was told that there was a 1-6 number speed setting, with 1 being the lowest and 6 being the highest. The A also means an automatic setting for sensitivity. These can be adjusted at any time.

There are also bases for this tools that can be changed depending on what is being cut for the best result.

The extractor then gets attached to the tool in order to collect the dust and wood that may come from it. The plug it cord is connected with a quarter turn. The hose also gets attached securely. Ensure the power is off when this is being completed.



The plastic then lines up with the line in which you intend to cut. To use it, I was taught that the button must be pressed with the trigger. The blade then goes up and down and to be aware of the multitudes of the blades. Also ensure that the handle is held securely. The line is then followed for the desired cut.

I found this tool the most difficult to use. This is because I have to have a lot of control over the tool in order to create an efficient cut. I was able to attach the power and extractor easily. However, I did need some assistance to actually use the tool to cut the piece of wood. This is something that I am going to continue to develop throughout the course of this module.

Chop Saw

We also looked at using a chop saw.The chop saw can change different angles for different types of cuts. This can be done by releasing the lever and turning to the desired angle. Ensure it is locked before using.

Ensure that the extractor is connect to the tool before using. Ensure the plug it cord and the hose are attached securely. Ensure the power is off before making any adjustments.

The speed can also be adjusted the the type of material being cut.

The laser lines will mark and layout where you are about to cut. To engage the laser, press the green button on the top of the saw.

To cut, the saw must be turned on before hand. To do this, engage the trigger and trigger lock together, and then pull the saw down.

I also learned that pushing the wood against the fence to ensure that it is secure.

When finished, ensure the saw has completely stopped before releasing it again.

I was given the chance to use this tool. Overall, I found this tool fairly easy to use. This is because I was able to have complete control over what I was doing and was able to cut the piece of wood efficiently. This is something that I am glad I was able to do and develop.





Table Saw

This was the final tool that I was shown how to use.

One of the first things I learned was about the saw stop and how it can re tract to avoid cutting somebodies hands.

Ensure the extractor and power are connected securely.

The settings of the saw can be altered in regards to the speed of the blade.

The thickness and length of the wood must also be taken into consideration. The settings must be changed and altered depending on the size of the wood. This can be done on the scale provided on the saw.

These must be accurate before a cut is made.

The wood must be pushed again the fence when using to ensure safety push the wood through the saw in order to create a clean cut.

This was the easiest tool for me to use. This is because I have had previous experience in using this tool and how to cut a piece of wood efficiently. However, I found it very useful to further develop my skills and gain some new knowledge.









Compressor

Another tool that we were shown was the compressor. This is because it is the most common tool that we are going to use and also it is very straight forward to use. To use it the valve must be checked to see if it is off. The light will then indicate if it is on or not. The lead then attaches to the tool that you wish to used. This was the final tool we looked at this session.

Extractor

I also found out how the extractor works. The extractor is connected to the tools in order to collect and extract dust and dirt. It helps make using the tools safer. The settings can be altered depending on what it is being used for. Auto is the most common setting. The hose and the plug it cord are then connect to the extractor before connecting to the tools. Ensure the power is off before doing this.



Images where taken from Google images

Education! Education! Education!

I was given the opportunity to watch the third year production of “Education! Education! Education!”. Overall, I found this production very interesting and very comical. I found that it was overall a very interesting production to watch. From a scenic construction point of view, I found it to be very interesting. I loved the way that the arch of paper aero plane had been constructed. This is because the design was carefully decided upon so that the same type of plane was create at different dimensions. The designs are neat and reflect the lighting to create some interesting effects. I love how they were placed all around the theatre because it made me as part of the audience feel engrossed within the world of the production.

I also really love the way that the books have been used within the production. This is because they helped engross the world of a comprehensive school. I found the way that they had been constructed very effective as the dimensions have stayed the same for different scales. I also love the way that they have been placed. This is because they remain in areas of the stage that allow the performers to move around, but they still remain a key focus throughout the production. The colour palette that the set has been constructed in is also very effective. This is because it is a black and white palette that has been used for every part of the design and these colours created a contrast within each other. I also loved how the set contrasted with the costumes that the performers were wearing as it allowed the focus to be directed to different areas. Another scenic aspect which I really enjoyed watching was the transitions between the scenes using the sets. This is because the way that the set was designed allowed each one to be smooth and appealing. From this production, I can take away the idea of using tonal contrast within a set and the effect that can be created. I am also going to take away the usage of different dimensions and scales and how effective the results can be.

Images From The Production







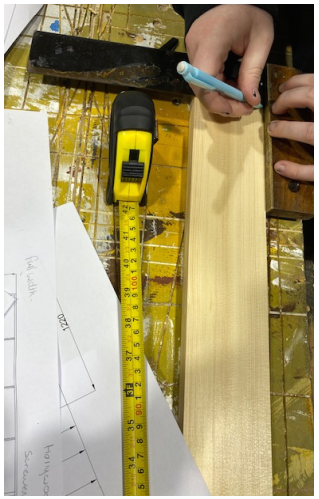
Flats- Hollywood flat

This is part of the module where we learned about how to construct flats. That's in the industry are used in theatre for the set designs. There are two types of flats. Once of them being the Hollywood flat. These are used to create part of the set e.g. a wall or building. We were put into three groups of three to construct this flat.

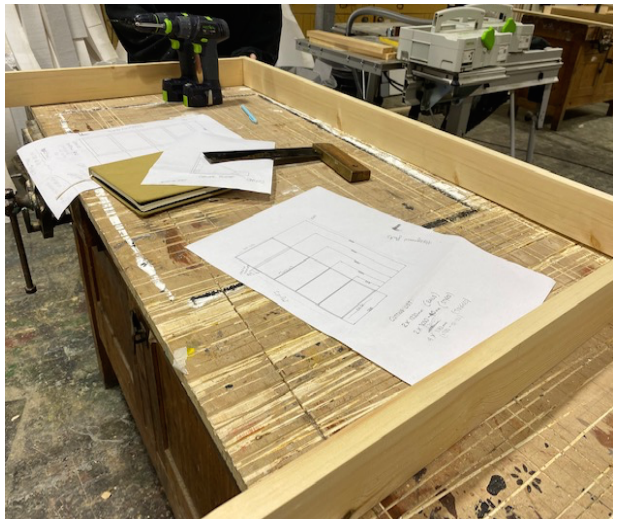


1. The first step that we had to do was to address the cutting list. For this flat we used the following measurement:

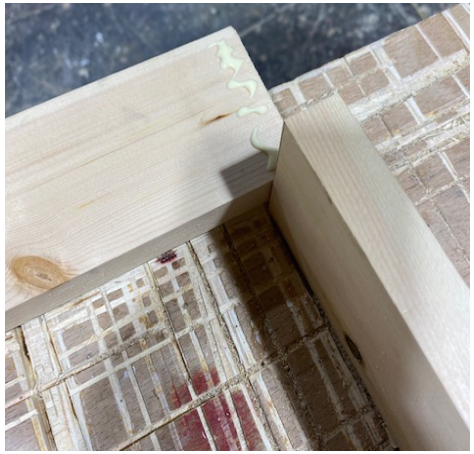
2 x 1220 mm
2 x 2304 mm
3 x 1180 mm



2. Once we had our measurements, we were then able to start the construction process. We first collected the pine wood. Before we started, we used the chop saw to cut the edges of the wood as we wanted a straight edge to measure from.



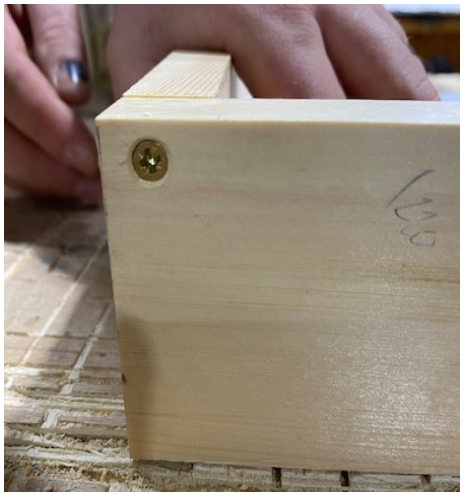
3. We then began to use the measuring tape. We measure the each piece twice to ensure that it was accurate before we began to cut it. There were instances were we had cut the measurement in accurate so we had to re cut the pieces. However, we were then able to able to measure to ensure that the pieces that we were cutting were as accurate as they could be. Once we had cut out the pieces that we needed, we then put together to shape of the flat. We did this to make sure that all of the measurements we accurate and equaled to 3100 mm. We found that we had used the correct measurements and we were able to move on to the next construction stage.



4. When we had checked that our measurements were accurate, we were then able to begin putting the flat together. To do this, we first used wood glue. This was placed were the pieces of wood would connect. This was to help strength the joints before we would drill in the screws.



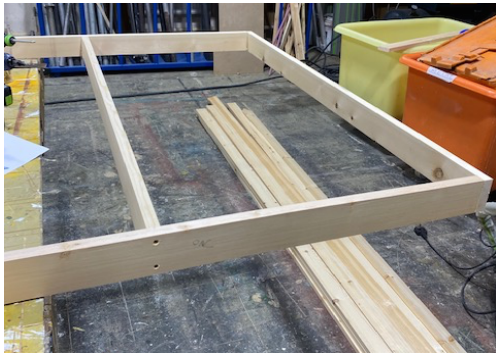
5. We had to make sure that the edges were flush before we drilled in the screws. This is because we had to make sure that the flat would be accurate to the scale. It was also so that it was neat and looks professional.



6. When we had done this, we then began to drill in the screws. We first created pilots for the screws to ensure that they went into the correct place. The drills were then switched so that we could put the screws in.

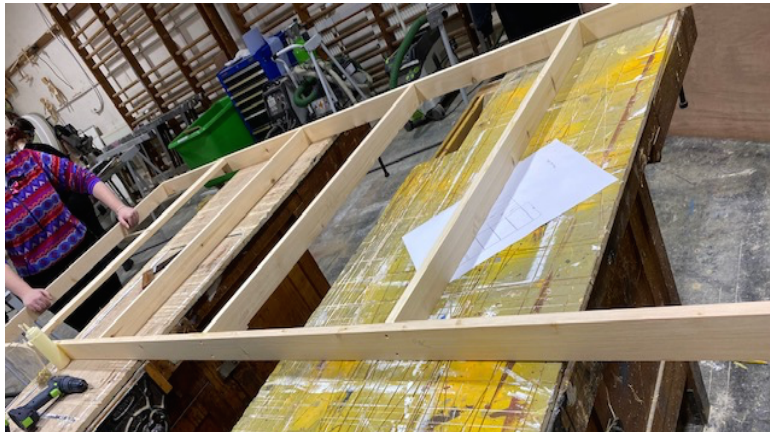


7. The base of the flat was then completed. We did find however that some areas of the flat were not flush. Even though this was the case, it was something that we as a group took into consideration and will be mindful of in the future to make sure that this mistake would not happen again in the future.



8. The next step was to place the the toddles and rails into the frame. To do this, we had to measure were they were going to be placed. We had to measure from the edge 610mm, 1220mm, 1830mm, and 2440 mm. We then had to mark in then had to make sure that the first three were marked up so that they were up wards. However the toddle being placed at 2440mm was placed side. When this was checked to see if it was accurate, we were then able to join the pieces together.

9. To combine the toddles with the rest of the frame, we again used the wood glue and the drills. We used to screws on each side of the toddles to ensure that they were firm.





10. After this was completed, it was then time to place the ply wood on top of the frame. This was to clad to flat. To do this, wood glue was place on all areas were the ply wood was going to touch. The ply wood was then placed on the frame. We then used a staple gun. This was connected to the air compressor and we had to make sure that each staple was placed were the toddle were underneath. This was to make sure that it did not go through the ply wood and it would not be on show from the other side. There were some instances were the staples did not go all the way through. This is were we used a hammer to flatten them.



11. As the ply wood was not long enough in height, we had to cut off some more. To do this, we measured the lengths that needed to be cut. We did this using the measuring tape and then transferred the measurements on to a new piece of ply wood. We then cut this using the hand saw as we wanted it to be accurate. We then attached this using the same method. As some of the glue was dripping, we had to used wet blue roll to remove it to ensure that it stayed as neat as possible.

12. After the whole flat had been put together, we then flipped it around. We did this to remove any access glue that may have dripped. This flat was then complete.



Flats- Broadway Flat

The second flat that we constructed was the broad way flat. This flat is smaller and lighter than the Hollywood flat. This was a very similar flat to the Hollywood, however the development and construction method was different.



1. The first step of this construction was to cut the pieces of wood to the correct scale. These scales were:

2 x 1220mm
2 x 2304mm
3 x 1084mm

As a group, we then measured the pieces of wood using the measuring tape. Before we did this, we used the chop saw to cut the edges of the wood pieces off so that we had straight edges to work from. The measurements were then checked twice to make sure they were accurate. The chop saw was then used to cut them.



2. Once the pieces of wood had been cut, we as a group then placed them together to make sure that they fit together efficiently and the edges were flush.





3. Once we had made sure that the scale that we cut was accurate , we were then able to begin putting it together. To put it together, we placed the pieces of wood horizontally. Once we had done this we then used the wood glue to to create a stronger joint between the pieces of wood. We then were required a staple gun which was attached to the air compressor. This stable gun however had the butterfly stables. These were longer sables to create stronger joints between the pieces of wood. I did struggle to use the staple gun to begin with as it had more power then I thought it would. Due to this I accidentally added seven staples at a time instead of the one. This was something that I was able to learn from because I now know that the I only need to press the trigger once in order to release the staples.

4. When we had learned from this mistake, we were then able to continue to put the rest of the frame and pieces of wood together.





5. Once the frame had been constructed, we were then able to add the angle pieces to the frame. To create these pieces, we placed on of the pieces of wood where the angles would be added. We then used pencil to mark where to cut the wood. The chop saw would then come into use. We changed the angle of the chop saw to 45° to that the angle would fit efficiently with the rest of the frame.

6. When we had done this, we then used the same method to put it together as the rest of the frame.





7. The next part of this construction was to create the joins using ply wood. To create these, we first used the table saw to cut the wood into different squares. We then used the chop saw to cut it into triangles. This was done by changing the able of the chop saw to 45° to create the angle that way required. When this was completed we then attached them to the rest of the flat.



8. To attach the pieces, we first used the wood glue to stick down the triangular pieces on each corner of the flat. We then used the staple gun with the small staples to firmly placed them.



9. We also create more joints with the ply wood. However, these pieces of wood were rectangular and angular and would be placed were any of the pieces of wood were joined by the butterfly staples. These were cut using the table saw, and shortened by the chop saw. However, for the angled toddles the joints were also cut to an angle at 45°. This was to ensure that they fit efficiently. These joints were then placed initially using the wood glue, and then the staple gun was used.



10. The final stage was to add the ply wood on to of the frame. This was to clad the flat. To do this, we first placed the wood glue on all areas were the ply would would touch. The ply wood was then added, ensuring that all the edges were flush. We then used the staple gun, with the small staples, to place the ply wood firmly.

Final thoughts- Hollywood Flat





Overall, I found the construction of this flat very useful and interesting. This is because I have never been able to construct something like this before. I was able to gain experience using the different tools and saws within the workshop and how they can be used for different parts of construction. However, there were skill some areas during this construction where I struggled. For example, I found applying the ply wood to the frame. This is because the wood kept moving so it was difficult to make sure that it was flush. However, we as a group were able to over come this issue by learning the importance of this and how to do it efficiently. This was important as these are skills that I will need to use throughout this module. Overall, I found that this task has helped me further develop my skills within the scenic construction module.

Final thoughts- Broadway Flat

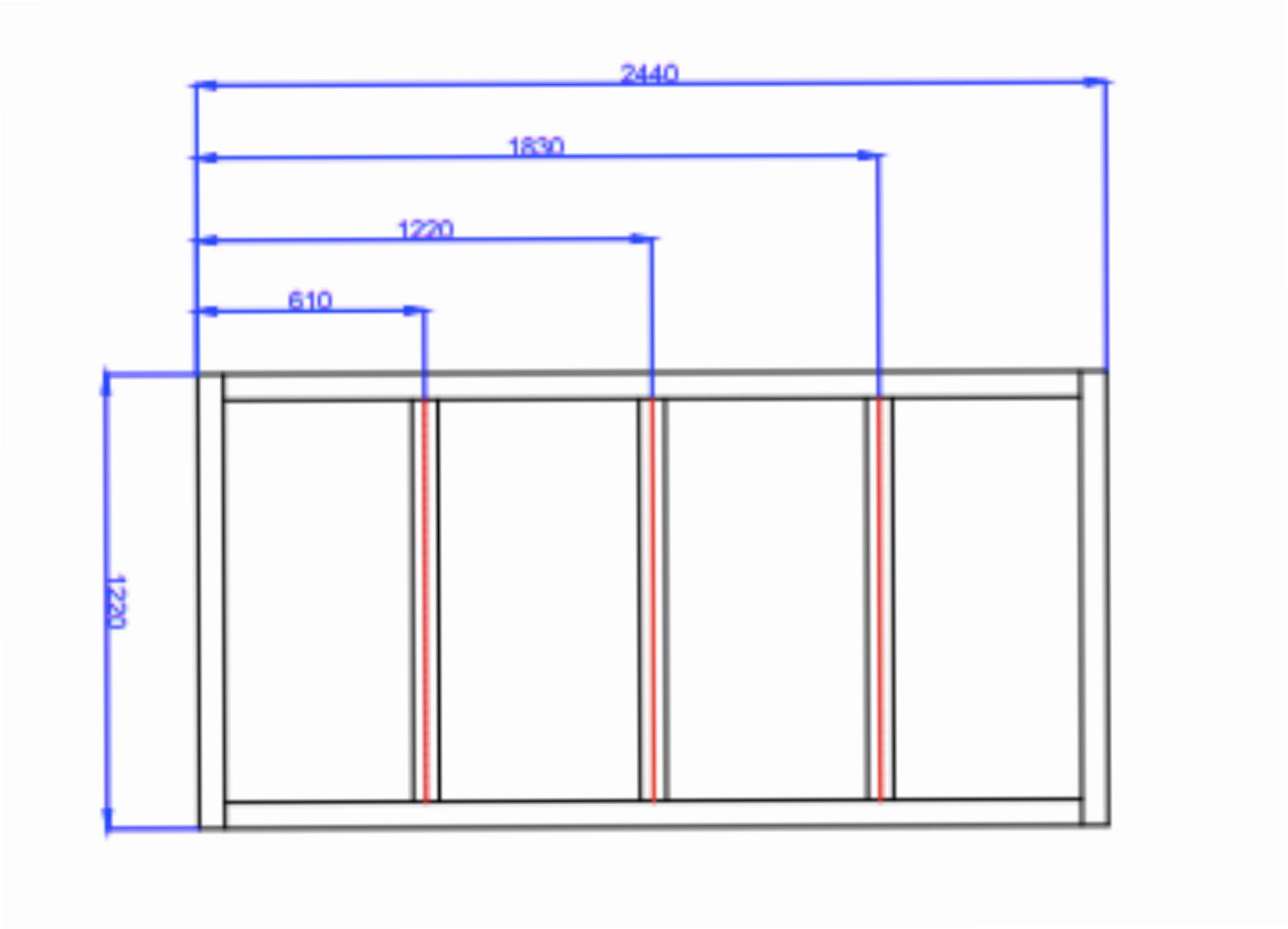




Overall, I found this flat more difficult to construct than the Hollywood flat. This is because I found that the joints were more difficult to construct. This is because the joints had to be efficient in order for the flat to be used. I also found the tools more difficult to use. For example, I struggled to used the staple gun to begin with and used more staples then were necessary. Due to this, I was able to learn from my mistakes and understand how to use it properly. This was good as I now know for when I use it next time. I also found that the use of angles within this construction more difficult. This is because they needed to be accurate in order for them to fit within the rest of the frame. However, as a group we were able to make sure that they were accurate. This task helped develop my skills which will assist me throughout the scenic construction module.

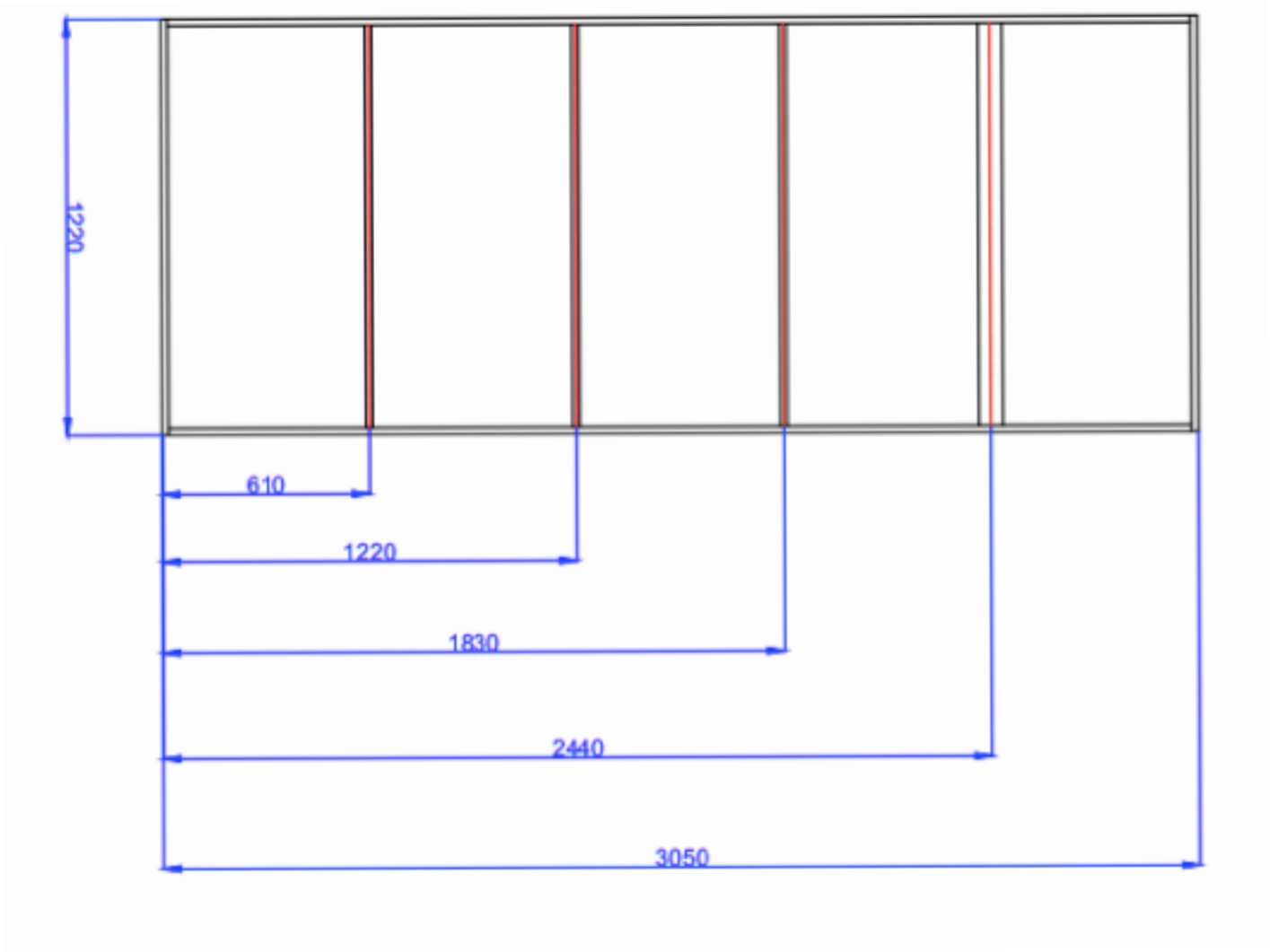
Broadway Flat CAD

This is the format that we followed.



Hollywood Flat CAD

This is the format that we followed.

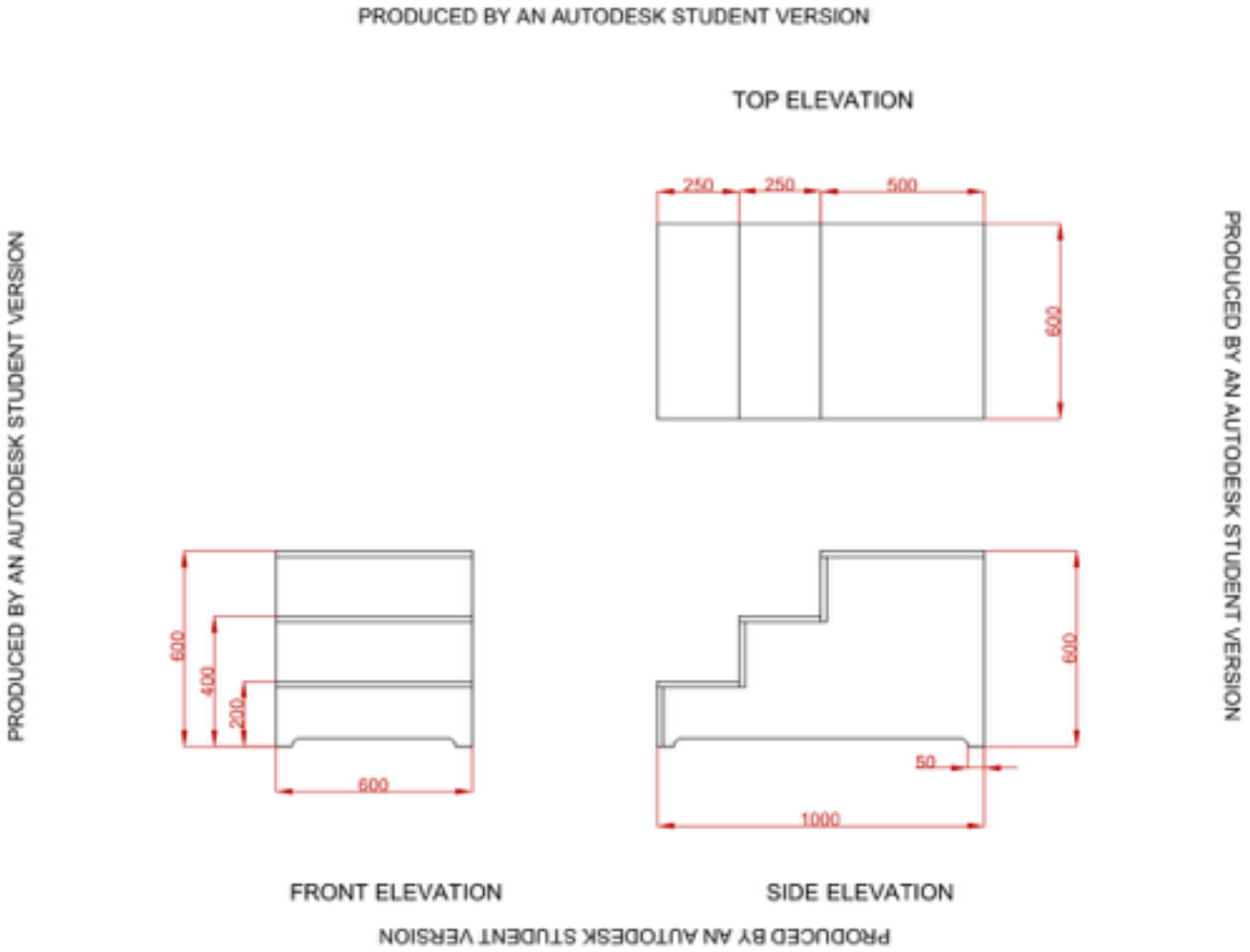


Treads

During this part of the module, were were given the task of constructing treads. These are are also known as steps within the industry. We were given a CAD diagram to work from. We were given cheap ply wood at a thickness of 18 mm. Due to this, we had to take away 18 from the scale on the CAD sheet to ensure that the wood equaled to the finished sizes. The following scales were worked out:

600 - 18= 582mm
200 - 18= 182mm
900 - 18= 812mm

This was the CAD drawing that we followed and used as a reference.



Making of Treads







1. The first part of the construct was to measure and add the scale onto then ply wood. These measurements were worked out with the 18 mm in mind. We went to the edge of the wood to that we had a 90° angle as a base to work from. We then used a measuring time to ensure that the scale was accurate and were being marked appropriately.

2. We then used the set square to double checked our angles were accurate and our lines were straight.

3. The lines were then joined. We did this by using the rail of a rail saw to ensure that the blade would be able to cut in the correct place.





4. When we had one scale line, we were able to use it as a guide to draw out the rest of the lines at the correct scale. We were then able to construct a grid. This grid contained the correct scale needed In order to construct the sides of the treads. To help make it more clear were we were going to cut, we wrote down in pencil the scale of each line. We did this so make it clear how the threads would be cut.

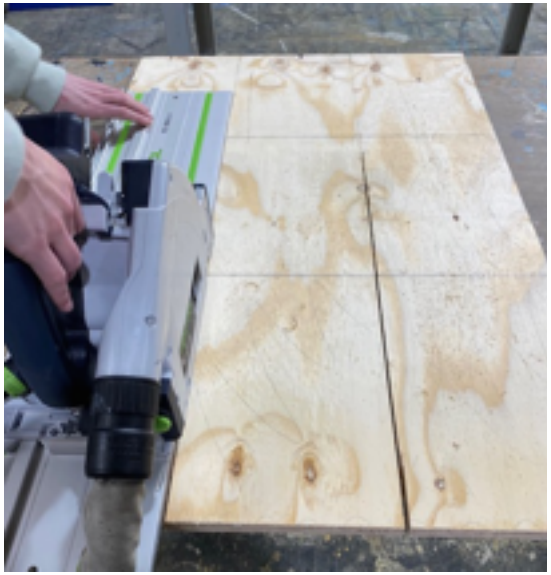
5. When we had to scales written down on the ply wood, we were then able to start thinking about cutting the wood. To make sure it was accurate, we scribbled on the lines which would not be cut to make sure that no mistakes would be made.



6. The rail saw was to be used to cut the treads. This is because the rail saw would give a straight accurate line. We placed it directly on the line to make sure that a clean cut would be created.

7. We then attached the saw to being cutting. We turned on the saw and then cut to where we had marked out on the lines to avoid mistakes. This left us with just the square grid.





8. As the rail saw could not be used to cut some of the lines, we used a jig saw. The rail saw was too large of a tool to be used. We used the jigsaw to cut the lines we had marked and steadily used it to create a clean cut.



9. Once the sides had been cut, we placed them together



10. However, when we placed the two sides together, we found that we had cut one side too small. Due to this, we had to make how much we needed to cut off. We then used the jigsaw to cut off this extra wood piece.







11. Once the sides had been cut and constructed, it was then time to move on to create the risers. To create them, we used the the rest of the cheap ply wood. We first measured 4x 600mm and 4 x 180mm. The measurements were taken using the set square and the measuring tape We did this so that each group would have the equal amount of pieces.

12. We then used to chop saw to cut out the pieces of wood and to double check and they were all the same and accurate scale.







13. The next step of this construct was to create the base to combine the two sides. To do this, we gain used the cheap ply wood. The scale of the wood was 600mm. To get the scale that we required we had to minus 38 from 600 as 38 was the wood size.

SCALE : 600- 38= 562mm

14. We then measured three of these pieces so that they would rest efficiently between the two sides. We then used the chop saw to cut these pieces.

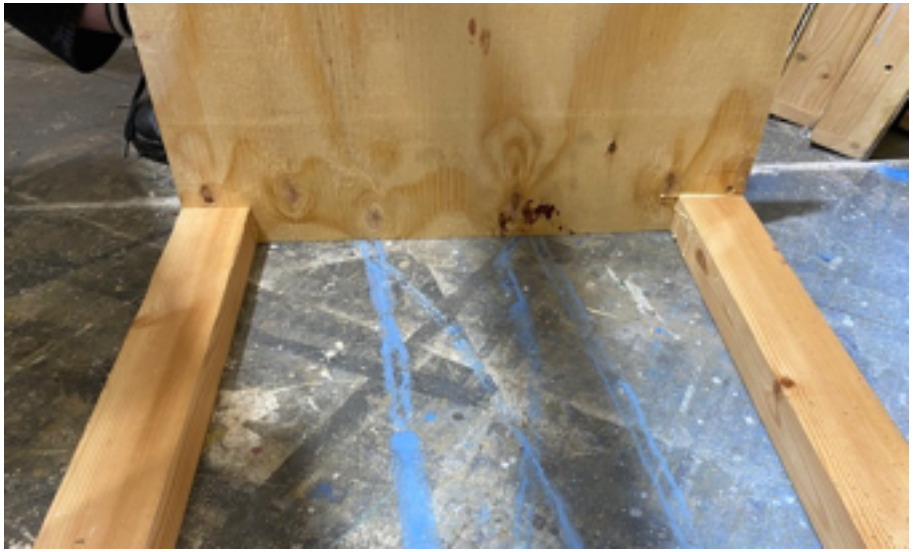
15. When we had double checked to make sure that the pieces were at the same scale, we then were able to combine them with the sides. To do this we first used the drill to drill two holes where the beams would be. we did them diagonally as it created more of a secure structure. We created a pilot hole to make sure we has an accurate hole to follow.



16. We found that we had drilled the holes at the wrong angle. This is because for the best support, the pieces would be place standing rathe then lying flat.. Due to this we had to re drill the holes. This is something that I will be aware of for future projects and constructions.



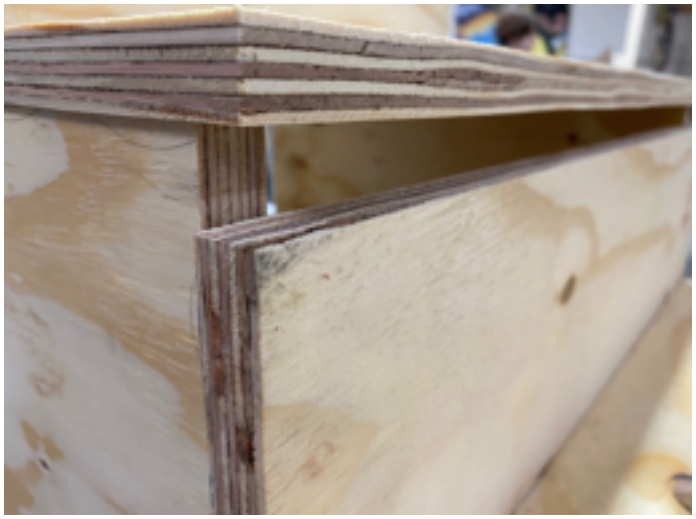
17. We then went of the all of the roles that we had drilled to ensure that they would be the same way



18. Once we had re drilled the holes, we used the wood glue to combine the pieces of wood. We then used 40mm screws.



19. When we had the bases connect to the sides, we could then start build the rest of the tread. We did this so that we could see where we would have to combine them and if they fitted together efficiently.



20. However, when we placed them together, we found that two of the front pieces were 18mm too short. Due to this, we had to re cut two of these pieces. The following scale was use;

600 -200mm
600- 106mm



21. We used the table saw in order to cut the two new pieces. We used the measuring tape to change the scale the the correct one that we needed.





22. When we had made sure that all of the pieces fitted together efficiently, we were then able to place it firmly together. We did this using the stable gun and made sure they were placed the opposite way of the grain for the best support.

23. We also stabled from the inside of the tread for extra support.

Final Outcome





Close Up Details





Overall, I am very happy with the final outcome of the tread. This is because it was able to hold the wait of three people and was firm and secure. I was able to continue to develop my construction skills further and understand the different methods better. There were some issues faced during the construction of these treads. For example, some of the measurements did not allow the treads to fit together as well as they should and we had to alter them to ensure the completion of the treads. I found this issue helped me understand the importance of accurate scales and how to deal with issues that may occur during scenic construction. Other than this issue, I was very happy with the final outcome.

Study Task 1- Recap

For this task, I went over the notes that I had made previously for the function of each tool. To help broaden my knowledge of them, I watched the Festool videos. Each one of the videos explained how to use each of the tools in great detail. It helped me refresh and develop the knowledge which I had learned from my lessons in the workshop. I found it very interesting to be able to broaden my knowledge of some of the common uses of the tools and how to accurately assemble them. It was very beneficial to be able to be able to learn about the tools and understanding the uses of them can help me in the long one as a scenic designer. Even though the videos went over the information that I had developed through the lessons, I was able to develop it further and the knowledge from these videos can be taken forward as I will now be using them regularly.

Images and video can be found here:
https://www.youtube.com/watch?v=6ZPlodgspwc



Getting Started: Festool Carvex Jigsaw - Setup and Common Uses



Getting Started: Festool Carvex Jigsaw - Setup and Common Uses

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Study Task 2- Rostra

A rostra is a standard walking platform for the actors to used during a performance. Looking at the book Scenic Design and Construction (Troubridge and Blaikie, 2002), There are many different types of rostra construction used in theatre. Some of these include:

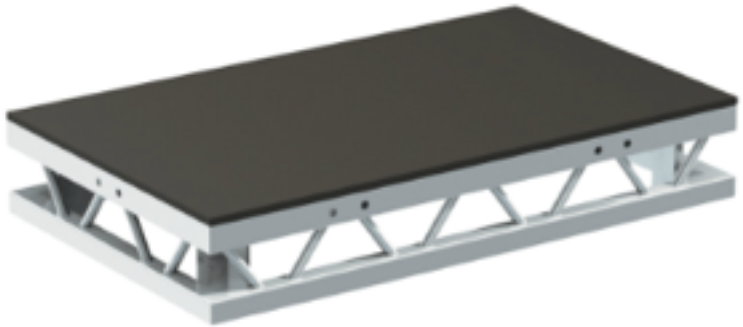
- **The block method**
- Simplest method of construction. It uses 2 pieces of 18mm ply to form a sturdy construction and the thickness of the wood must be taken into consideration when creating the cutting list. One would form the top and the other would be cut up for the sides and supports. It is constructed by using glue and screws

- **Advantages**
- Simplest method of rostra
- Can be any size or shape
- Can be constructed very quickly



- **Disadvantages**
- Very heavy to lift
- Not very easy to move

- **Modular steel rostra**
- Three dimensions that are used as an indication to what steel is available. It is fitted with corner sockets that can take any length leg.



- **Advantages**
- High strength factor
- Versatile
- Highly durable

- **Disadvantages**
- Steel is in high demand in the industry

- **Gate leg rostra**
- They are constructed using either 25 x 75mm or 32 x 75 mm softwood. Built the the same fashion as a timber flat. The rostra is made up of several flats that hinge together to form a support structure for the top. Toggles are placed every 600mm or 800mm along the length of the frame.

- **Advantages**
- Folds away compactly
- Can still be used in productions

- **Disadvantages**
- It is a dying breed of rostra

There is a need for the different methods of rostra. This is because some are suited best for different performances and they maybe be safer. It always important to consider all aspects of the stage and performance before selecting a rostra. There are also disadvantages and advantages to using different rostra.

A rostra that I found interesting in a stage design is in Newsies. This rostra have been used so that it is mobile and can be easily moved around the stage. It can also be moved by the cast so that the movements are constructed into the actual choreography, I think that this type of rostra has been selected because it allows the performance to be seen from a higher angle. I also believe that it has been selects as it is safer to use other than the wood as it is less of a safety hazard.

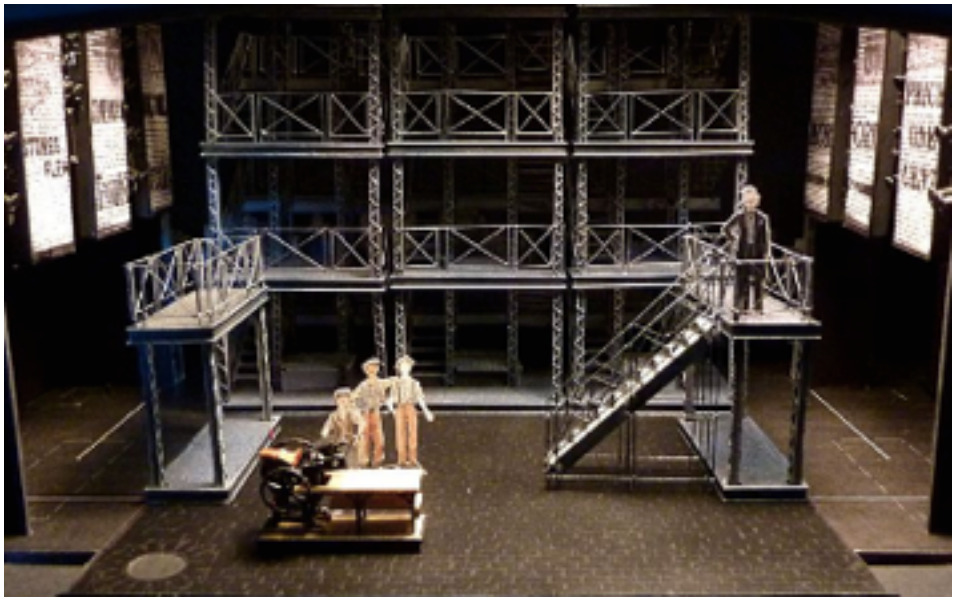


Image Taken From Google Images

Study Task 3- Theatre Trucks



A theatre truck is a wheeled platform in which a scene is built to facilitate a scene change. The platform can be moved on and off stage. They are popular within stage productions as they allow scenes to be changed at a quicker pace and to benefit the overall production. They are moved by wheels being placed on the base of them and then the stage crew would move them when given the cue from the stage management team. The wheels allow them to be moved weekly and easily in between scenes. However, when this is being done, safety measures must be taken into consideration. Some of these include:

- Safety lock on wheels
- The correct amount of people moving the truck
- Time management
- Actors are aware
- Licenses are in place
- Training has been carried out
- Placement must be correct and accurate



These safety regulations must be followed at anytime the trucks are on stage or are being moved. These safety regulations are needed as issues and problems can occur if they are not followed issues can occur which will effect the overall production. For example, if the safety regulations are not followed the cast and crew could face injury or the blocking could be disrupted.

Images taken from Google Images

Theatre Trucks

Examples

Here are few examples of theatre trucks used in stage productions.



Legally Blonde- Broad Way

I found this theatre truck interesting as it is used significantly throughout the show. It helps set and change the scene with ease which I really love as it is a fast process and more detail can be added into the set design as it can be quickly changed. I also find this theatre truck interesting as props can quickly be changed. This is because the truck can be taken on and off stage, allowing the the crew to change the props for the next scene.



Frozen- Broadway

Another theatre truck which I found interesting being used on stage is Frozen. I love this theatre truck because it helps set the scene for the ice castle. I love how it helps construct the appearance of the castle and helps create the magic effect within it. I love how it also contrasts from the rest of the production and makes it individual to the character. The theatre truck allows this to happen which I love.

Images taken from Google Images

Theatre Trucks

Risk Assessment

Risk assessment

Company name: Theatre Trucks **Assessment carried out by: Caitlin Fox**

Date of next review: 16/04/2022 **Date assessment was carried out: 16/03/2022**

What are the hazards?	Who might be harmed and how?	What are you already doing to control the risks?	What further action do you need to take to control the risks?	Who needs to carry out the action?	When is the action needed by?	Done
Truck falling	Crew and actors	Safety locks and handling	A team of people moving the trucks Actors are alerted when they are being moved	People who are trained	ASAP	Y
Moving	Actors	Safety locks	Alert the actors to be extra cautious	Actors and stage crew	ASAP	Y
Wrong timing placement	Actors and crew	Correct time management	Communication is clear	Management team	ASAP	Y
Actors falling	Actors	Actors are aware of their surroundings	Actors are aware of their surrounding and made aware of any changes	Actors management team	ASAP	Y

Study Task 4- Treads

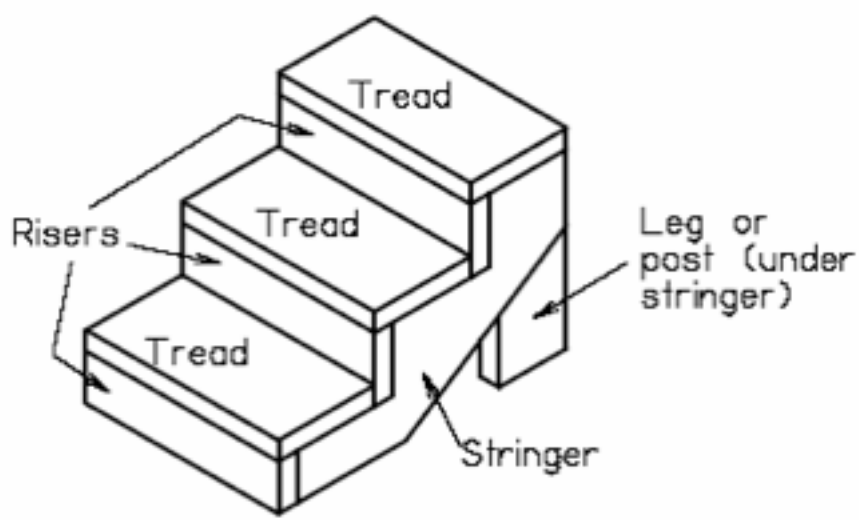
To make treads for theatre, stairs, ramps, and ladders are used as a starting and ending point. This is for the different elevation of the tread being made and constructed. Many aspects and techniques must be consider before constructing them in order for them to be accurate and effective. In order for this to happen, the form and function of the treads must be taken into consideration. For example, the treads but be able to hold the weight of the actors and make sure that they are constructed to support them. They must also be designed to be able to move about to where they will be in use.

However, not all treads are built the same. For example, the ones that we construct in class had the sides covering the entire side of the tread, with the back open. However, they can also be constructed with a stringer and legs or post underneath them. Hand rails can also be added for extra safety regulations. The hand rails may not always be necessary, but it depends on the height and how they have been constructed. Safety regulations when using treads in a production must be carefully taken into consideration. Some of these include:

- Hold the weight of performers on the treads
- Hand rails accessible
- Risk assessment had been carried out
- Are well lit to the performers using them
- Slip resilience
- Clear marked edges

The critical angle is the angle of incidence which provides an angle refraction of 90 degrees. The critical angle is used when constructing treads because the construction must meets safety, accessibility, and code specifications. This is extremely important to think about. The sizes and scales used are extremely important. For example, the riser sizes need to be accurate to ensure the safety of the performers using them. They must be angled to the correct scale to ensure safety. Using treads can also be very noisy. Due to this they treads are carried and transported so that they are not dragging across the floor. A base can also be added to avoid this. The treads are also not always shut in clad ply as some may not need it as they may already be thick. If they are not thick, it can be used.





Images taken from Google Images

Task 4- Treads

Examples of treads used on stage

Treads used in Newsies on Broad way

Some treads which I found interesting being used on stage is in the set of Newsies. This is because I love how they are included in the choreography of the show and the performers can move them themselves. I love how they are made from metal and are constructed so that they can easily support the performers whilst playing a huge part in the production.





Stefanos Lazaridis (1942–2010), Model of the set for 'The Mitford Girls', Directed by Patrick Garland

Another set of treads which I found very interesting being used in a set was The Mitford Girls. This is because I love how they have been design and constructed with the curve. I love this because it has made the set original and helps bring the production and set to life.

Images taken from Google Images

Study task 5- Revolves



A revolve is a mechanically controlled circular platform which is in a theatre. It is used to change the scene within a show or to be used by the performers as part of the choreography. It can be operated to rotate at different speeds depending on what is required for the performance. They are operated through a central pivot which is moved by a motor and controlled by an automated operator. It is then connected by a friction drive. It is made with metal wedges with a wood piece on top. It then has wheels at the bottom. A scenic floor is then placed on top to hide the wheels and wedges.



Can revolves be used on a raked stage?

A raked stage is a sloped stage that is raised at the back of the stage. Due to this, a revolve cannot be used on a raked stage. This is because the revolve would not stay in the centre stage and could easily be moved during the performance. Raked stages are not usually used in theatres anymore as the seating the auditoriums are lifted to stage level so all the seating and audience members can see the stage and performance from a respectful view.

Images and video can be found here: https://www.youtube.com/watch?time_continue=1&v=wJuxxPUTmSQ&feature=emb_title

Revolve used in a production

An example of a revolving stage being used in a production is Hamilton on Broadway. I find the use of this revolving stage very interesting. Even though I have not seen the production in person, I have seen clips on Youtube of how it works and how it is used with the production. The performers stand on the platform on the different sections, with Hamilton in the centre. The platform then spins during the songs. I really love the use of this platform because it creates the impression that the people are revolving around Hamilton. I also love how the platform is used as part of the choreography as it helps create a type of suspense within the production. I find this revolve very interesting as there are different sections of the revolve rather then just one platform. I love this as it makes the set more original and interesting to look at. This revolve uses the same mechanisms as regular revolves to move and I love how it makes the stage and set unique to other productions.

Images taken from Google Images





First Year Set

During this session, we were given the opportunity to build and construct the first year dance set. I found the idea of this very interesting and exciting because we were able to build part of a set which is something that I have personally never done before.





1.To build this set, we were first given a long piece of cheap ply wood. We were also given a sheet of this ply wood. To create the set, we had to use this wood to create a semi circle of 2.4 metres. To begin this process, we first had to measure the 1.2 metres from the centre. We then used the drill to screw in the long piece of wood.



2. When the pieces had been screwed together, we then measure 1.2 metres on the long piece of wood. A line was then drew in pencil to mark this scale. A drill was then used to drill a whole in the centre of this line.



3. Once we had drilled the whole into the wood, we then made sure that a pencil could fit through to the other piece of wood.

4. When we had the pencil placed in the hole, we were then able to turn the wood to draw the semi circle.





5. When the semi circle had been drawn, we were then able to cut it out. To do this we used a jigsaw. I am gaining more confidence when using the jig saw and this tasked helped that development.

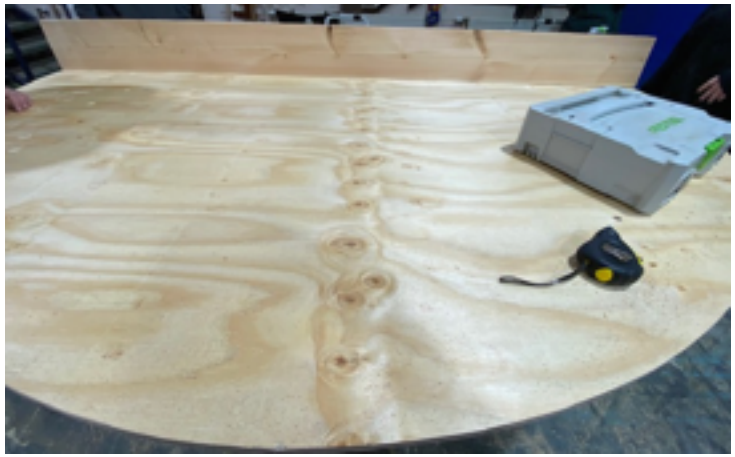


6. Once the semi circle had been cut, we were then able to move on to the next stage of this construction.



7. The next stage was to add the back support onto the semi circle. We then cut the wood. The scale that we used to do this was 562 mm. To get this scale, we used the following measurements: **600-38= 562mm**

We then cut this using the chop saw. To attach this to the semi circle, we first used the wood glue, and then the staple gun. The clamp was used to make sure that it stayed in place.



8. We we had attached them, we were then able to flip the piece over again and move on to the next construction stage.



9. To make sure the the platform had the most support possible, we then need to add the support beams of wood. To do this, we placed a piece of wood along the centre of the semi square and marked where we need to cut the wood. We used a set square to make sure we had the centre. We then used the chop saw cut the wood.

10. When we had cut the wood, we were then able to attach it to the semi circle. To do this, we first used the wood glue. We then used the staple gun to make sure it was firmly in place.





11. However, when we checked, we found that the wood had not been placed straight. Due to this, we had to re position it. We used a hammer to knock the wood from the staples.



12. As we still had the previous staples in the wood, we used an angle grinder to buff them down into the wood. I have never used this tool before and I found it very useful and interesting. To use this tool, attach the handle securely. Then you hold down the button and place the top of it on the screw which needs to be shorten.



13. When we had the staples shortened, we could then re position the wood so that it would be straight.



14. Take sure the the platform would have the most support possible, we were required to add four more support pieces of wood. To do this, we had to use 2 different measurements. we worked out we need the following measurements:

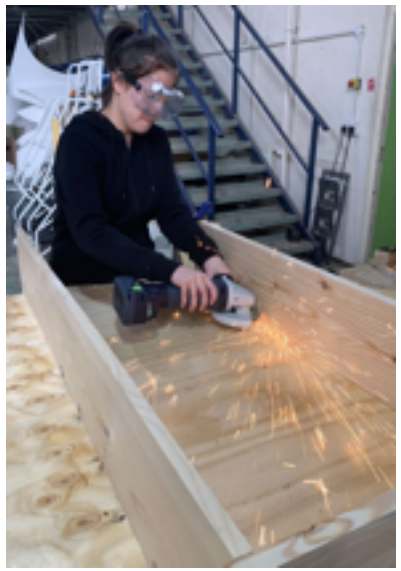
67mm x 2

108mm x 2



15. When these pieces of wood had been cut, we were then able to being to connect them to the rest of the semi circle. To do this, we again used the wood glue and the stable gun.





16. As we had add more staples, we accidentally missed the piece of wood and it went straight through. We used the angle grinder again to shorten the unwanted staples.

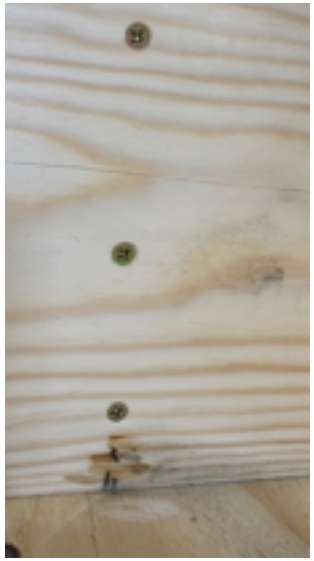


17. When the four pieces had been connected, we then had to add the final pieces. We needed these pieces because it would mean it would be more secure for the dancers to perform upon. The pieces were created using the scale 48.5 mm. This mades sure that it would fit perfectly between the pieces. There were four of these pieces cut using the chop shop and they were placed evenly between the other pieces. These were then attached again using the wood glue and staple gun.

18. When we had made sure that all of the piece was secure.







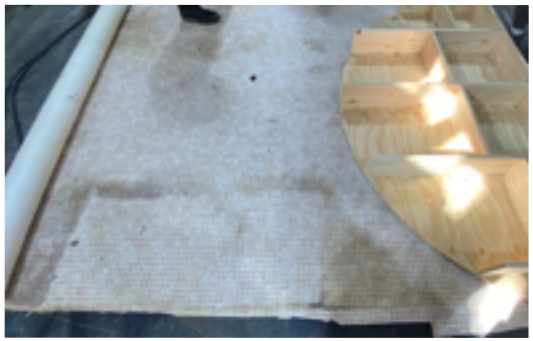
19. When we had placed the support pieces of wood on to the construction piece, we found that we need to added two more wood pieces to fill two of the gaps to make it more stable. We measured the width of the space and then used the chop saw to cut them. We then secured them using the wood glue and a drill to counter sink and screw in some screws.

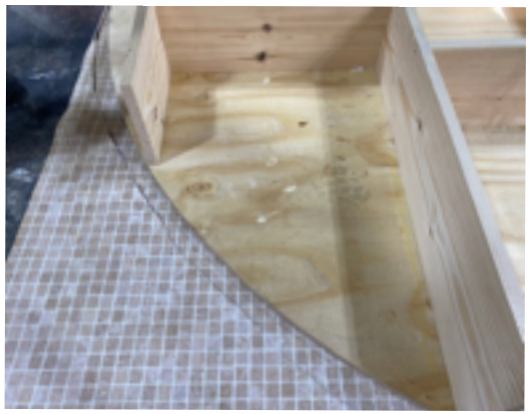
20. The next stage of this construction was to remove any of the sharp edges on the plat form. To do this we used an electric plainer to shave away the excess wood. As there was smaller areas that needed to be shaved away, we added pieces of wood to these areas so that the shaving of the wood would be more efficient. To do this, we cut small pieces of the ply wood and placed them used the wood glue and drilling in screws. We also placed clamps on them to make sure that they stay in place.











21. As this platform for would be used for dancing, we needed to cover the the wood. This would be to avoid injury. To cover it, we used kitchen floor lino. We used this material because it can be re covered and painted over. To use it, we first placed the semi circle platform on to the rolled out lino. We then drew around the shape using a pencil. We did not draw right on the edge of the shape as we wanted to make sure that there was some material hanging off so that there would be enough to fit the plat form. When we had drew the outline, we then cut it out using the stanley knives. We then repeated the this process for the second platform. Once the lino had been cut, it was then time to combine the lino onto the semi circle. To do this, we used the wood glue and the staple gun. We used a thin layer of glue and then placed the lino on top. We then stapled the edges. When it was firmly in place we were then able to trim the excess lino.

22. The next step was to then to add the wooden edge onto the platform. This was cladding. To do this, we use a piece of 6mm ply wood. This was then cut the length of the semi circle. When this had been cut, using the chop saw, it was then attached to the rest of the platform. To do this, the wood glue was use. The staple gun was then used to place it firmly in place.





23. When the edge had been added, this semi circle was then complete. We as a group were happy with this outcome. It was then time to combine it with the other groups semi circle. This would the be designed and painted to how the production team would want for the production.





Final Outcome

Overall, I am very happy with the process of this scenic construction. This is because I have enjoyed being able to construct a set for a production and being able to see first had the process of its development. I have really enjoyed being able to develop my skills when using the tools as previously I have been very nervous when using some of the tools. I now feel a little more confident when using the jigsaw and angle grinder. I will continue to develop these skills further as I develop through this module. I found that using the staple gun can be an issue as if it is not lined up correctly, it will go through and will cause other issues. As more staples were added, I was able to understand how to line the staple gun properly to ensure that the wood would be connected properly and efficiently. I feel that I have made great progress within this set construction and the skills that I have developed. I am also very glad what it was constructed efficiently for a stage production.

Task 5- Interesting Sets

During this session, we were given the task to choose two interesting sets that were personal to us. We then presented these to the rest of the group. The sets that I decided to look at were a film set and a musical set. These included:

- **Everybody's Taking About Jamie**

- **The Shire: The Lord of the Rings & The Hobbit**

Everybody's Talking About Jamie





The first set that I looked at was the musical Everybody's Talking About Jamie. The musical is based on the real life story of Jamie Campbell who from a young age didn't fit in and who desired to become a drag queen. The musical follow Jamie. who is called Jamie New in the musical, though his 16 year old life and how he over came the bullying that he faced and the support from his friends and family. The first stage production was on the 13th February 2017 and has continued to brace the stage since.

Overall, I am very fond of this musical. This is because it shows the life of a boy who does not want to follow the stereotypes and wants to be his own person. The show is full of life and colour and the songs represent a variety of emotions that the characters are feeling. I really love this and the uniqueness of the story.

Images taken from Google Images



I am particularly fond of the sets because of its uniqueness. The set was designed by Anna Fleischle. To create this set design she had a meeting with the director and carried out the research to create a basic design. The set was built to change to suggest each location, but abstract enough to allow the audience to create the scene in their heads. As the musical was very quick, the set needed to be changed quickly, this led to some of the sets, such a the desks, being used in the scene. This was done by wheels bing added to the sets so that they could be easily moved. The lighting was also a major part of the set design. This is because the lighting helped set the scene and the change of mood. The floor and lighting were designed with the inspiration of a dance floor to help the transition between the acting and the songs.



I am overall really loved this set design. This is because I love the way that lighting has played a major impact within it and how the set and lighting compliment each other. I also really love the concept of using the gaps to show the band. This is because it helps the audience connect to the music in a more personal way and builds a type of excitement when they can see where the music is coming from. I love that they are shown from the light but represented through shadows to help this concept.

Images taken from Google Images

The Hobbit House





The second set that I looked at was the Hobbit house from The Lord of the Rings and The Hobbit Trilogies. Overall, I am very fond of this set. This is because the films create a nostalgic feeling for me as I grew up with them and the beauty of the sets within them. The Hobbit house was a set that I really loved when watching the films. This is because I love the way that the sense of home and belonging have been created and how it seems like a piece place to live.

The Hobbit house was also an extremely important set within the films. This is because it is where the story starts and where it ends. It is the familiar safe place for both the characters and the audience and I love how it is so iconic and recognisable.

I also really love this set because it helped bring the books to life. The books written by J R R Tolkien were so iconic and were so accurately brought to life life by Peter Jackson. The story seemed so real when viewing it with these sets.

Images taken from Google Images



The production designer on the Dan Hennah. He worked closely with Peter Jackson in order to bring this set to life. The set was actually built on the land in Matamata on the North Island of New Zealand. This place was chosen because of its “untouched bucolic rolling topography with lakes and huge trees”. This stood out to be because the location was selected before the set was even designed. When the location had been chosen, the set could be designed. The book was read and re read to gain a better understand of the descriptions that was written and created by Tolkien himself.



However, the set was only exterior in this location. The interior was created in a studio. The exterior set was originally built using polystyrene, however, in 2011 it was was built permanently in the location using more sustainable materials such as ply wood. This is now a very popular tourist attraction in New Zealand.



Overall, I believe that is set is very unique and an interesting approach to set design. This is because I love how it had been constructed within a location and was designed from the iconic words of and inspirational writer.

Images taken from Google Images

Study Task 6- Metal To Build Scenery

Metal is used in many set constructions for many different reasons. This is because there are many benefits to using metal when building and constructing set scenery. It can make a set more secure and efficient during the making process. It is also sustainable and reliable which is a crucial aspect when constructing set scenery. The strength that they provide can assist in the development of the the production and also an increase of safety within a production. The durability of the metal is also an important factor. This is because un like wood, it does not wear away that easily and can sustain a significant amount pressure and can resist more damage compared to wood or other material that may be used. I personally find metal to build scenery very interesting. This is because when I noticed a set that has been constructed using metal, I feel that it can look more efficient and I have noticed that the performers seem to be more involved with set when it is built with metal which I believe creates more of an interesting effect to the audience.





Newsies

A set which I keep referring back to for its uniqueness is the Newsies set. This set specifically shows the benefits of using metal when building a set. This is because this set is constantly being changed and altered throughout the production. This proves the importance of the sustainability and durability of the metal sets. The metal also allowed the safety of the performers to be enhanced. This is because they could jump and perform without fear of the set wearing away.

Images taken from Google Images

Metal To Build Scenery





P!nk Beautiful Trauma Tour

Another set which I am fond of is the Beautiful Trauma stage design. When I went to for and see this concert, I was mesmerised by the set and how P!nk constructed into her choreography. The set was also constructed using metal. This allowed her to be able to swing on it without fear. This is because it was built with efficient sustainability. As this was a set that would be touring, the set was also very durable. The fact that the set was built using metal allowed it to be taken apart and reconstructed without the fear of it wearing away.

Kinky Boots

Another stage set that I am fond of and uses a metal set construction is kinky boots. Again this set is constantly be used by the performers and the metal allowed them to do this safely. The durability caused by the use of metal is also very crucial.





Images taken from Google Images

Scenic Art And Construction

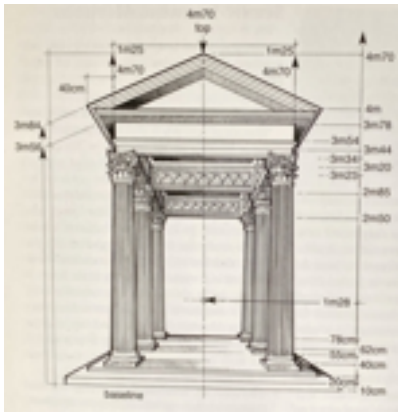
To help broaden my knowledge of scenic construction, I decided to undertake some further reading. The first book that I read was Scenic Art and Construction by Emma Troubridge and Tim Blaikie **(Troubridge and Blaikie, 2002)**. Overall, I found this book very useful and educational. This is because I was able to broaden my knowledge of the different elements within scenic construction. The first thing that I was able to learn was that the fascination within theatre does not thrive only from the performers, but from the visuals created by the stage designers. This stood out to me because it shows me the importance of my chosen discipline within the industry.

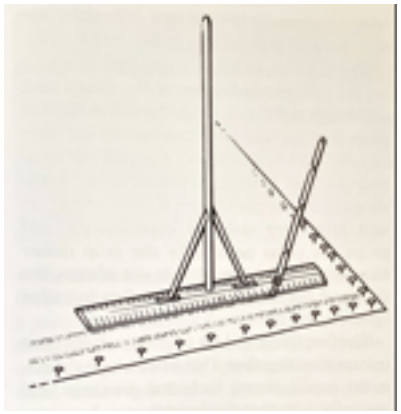
Production Processes

The first chapter was about the production processes. From this chapter, I was able to learn about the initial viewing of the scale model and discussions between the designer and the production departments. I also learned that production team is made up of the following separate roles:

- Director
- Set Designer
- Production Manager
- Stage Manager
- Deputy Stage Manager
- Assistant Stage Manager
- Chief Electrician
- Head of Sound
- Prop Master
- Wardrobe Supervisor
- Scenic Carpenter
- Scenic Artist







During pre production, all of these roles will undertake separate tasks before the next stage can be undertaken and after the initial discussions have taken place. A scale model, usually 1:25, will then be created. This model will then lead to the development and discussions between all of the departments.

The Workshop

Reading about the workshop was also something that I found very useful. The workshop must be laid out so that all materials, timber and tools are at ease of access. This is something that I am going to keep in mind in the future. In this chapter, I was able to broaden my knowledge of the importance of selecting a work space. For example, selecting a space with an appropriate height is crucial and allowing an extra 300mm in the ceiling for clearance. The “get in” is also a crucial factor to consider. This is because it must be easy to get materials in and out of the workshop. Also, in the book there was a section discussing the tools within a workshop and the importance of the storage. This helped me develop my knowledge further on this from what I have already learned about tools. This chapter also helped me learn and develop my knowledge of timber storage and the site box which I found very useful.

Scenic Paint Shop

I haven't learned that much about scenic painting so I found this chapter very useful. I was able to develop my knowledge of the lay outs and components that go into a scenic paint shop and the importance of each factor. It was also interesting to learn that the scenic artists are usually the last to start work on the set. The work space much also include:

- Heating and Ventilation
- Lighting and Electrics
- A Sink Area
- Paint Storage
- Paint Mixing Area
- A Drawing Table
- Wall Space
- Tools

All these must be present and be taken into consideration.

Basic Joints, Materials, Ironmongery, And Fixings Used In Scenic Construction

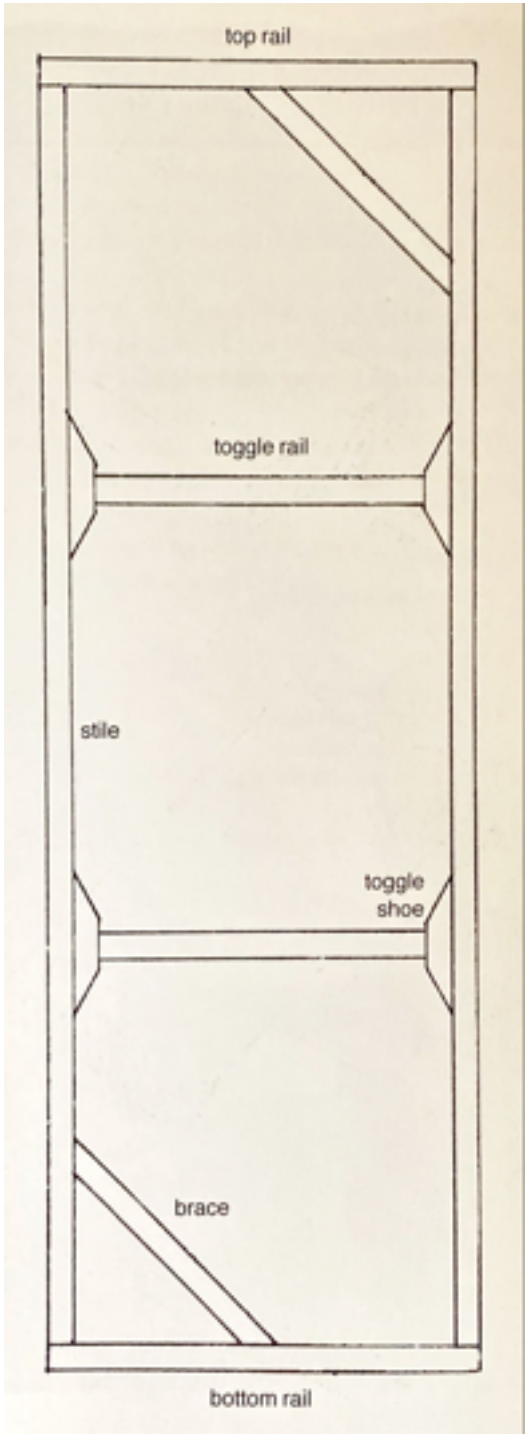
This section was also very interesting to read about. This is because I didn't know much about the joints used within scenic construction and I enjoyed be able to broaden my knowledge on these factors. It was interesting as mastering only a few of these simple procedures, anyone can construct scenery to a professional standard. I also learned that the most common material used is timber. Some of basic joints include:

- Mortise And Tenon Joint
- Mid- Span Mortise And Tenor Joint
- Corner Mortise And Tenon
- Lap Halving Joint
- Butt Joint

These are something that I am going to keep in mind in the future.

Flat and Tread Construction

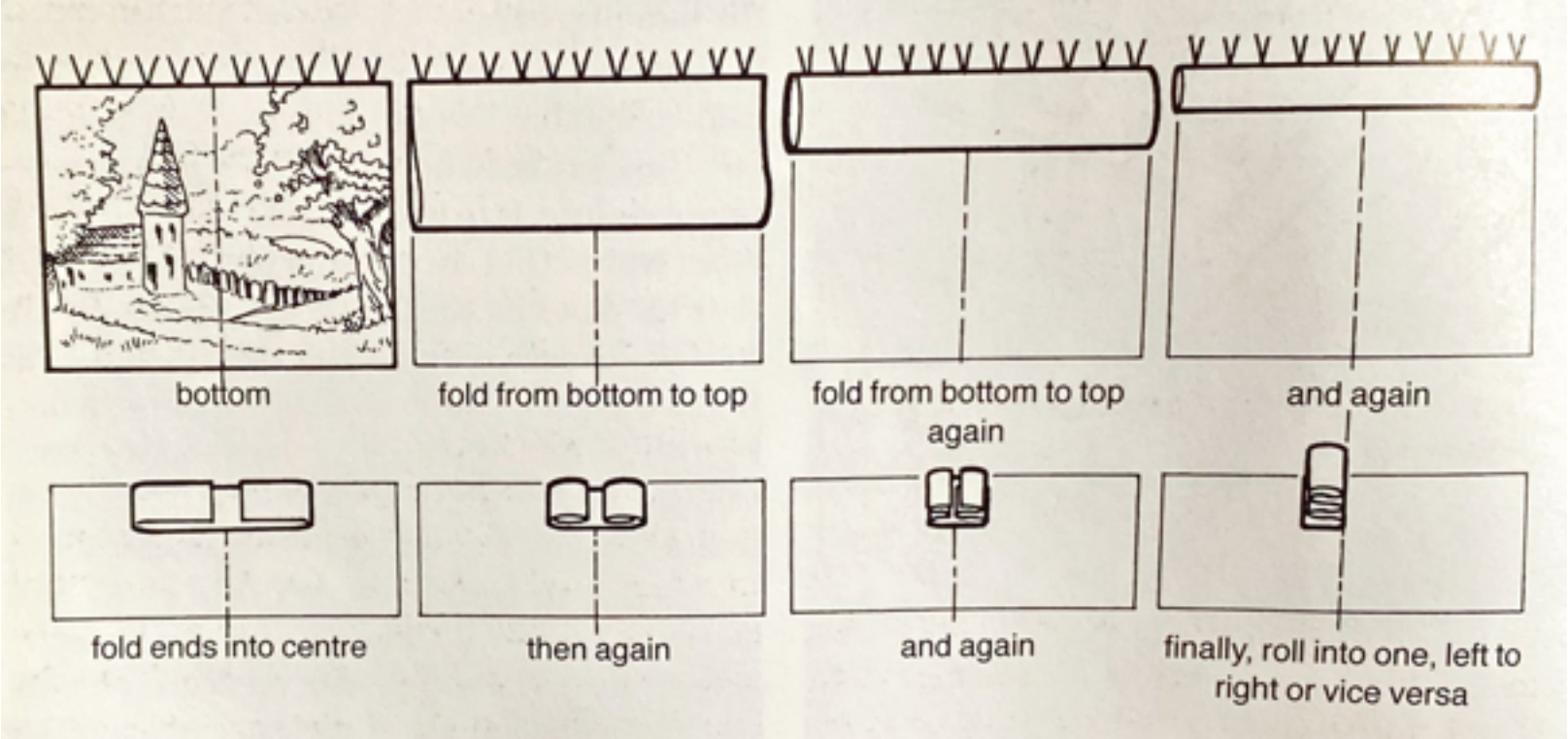
In this book, these was also sections about flat and tread construction. even though I have learned about these during separate sessions, it was very beneficial to be able to read about them from a different perspective. I was also able to develop my knowledge further.



Door Construction

Being able to read the door construction section of this book was also very beneficial. This is because I had not looked at this before and was able to learn about the proper way to construct a door. I also able to learn about the construction about both solid doors and hollow doors. I learned that hollow doors is the easiest method and commonly used in set in modern times and that PAR wood is typically used to construct them.

The other chapters in this book also contained information about drawing, surfaces, colour, painting and texture. Overall, I found this book very useful. This is because I was able to broaden my knowledge on scenic art and construction and further develop the skills that I have learned over this module so far. It has brought attention to other crucial methods which may aid me in the future. I know that I can refer back to this book in future if I require more information.



Images taken from physical copy of the book.

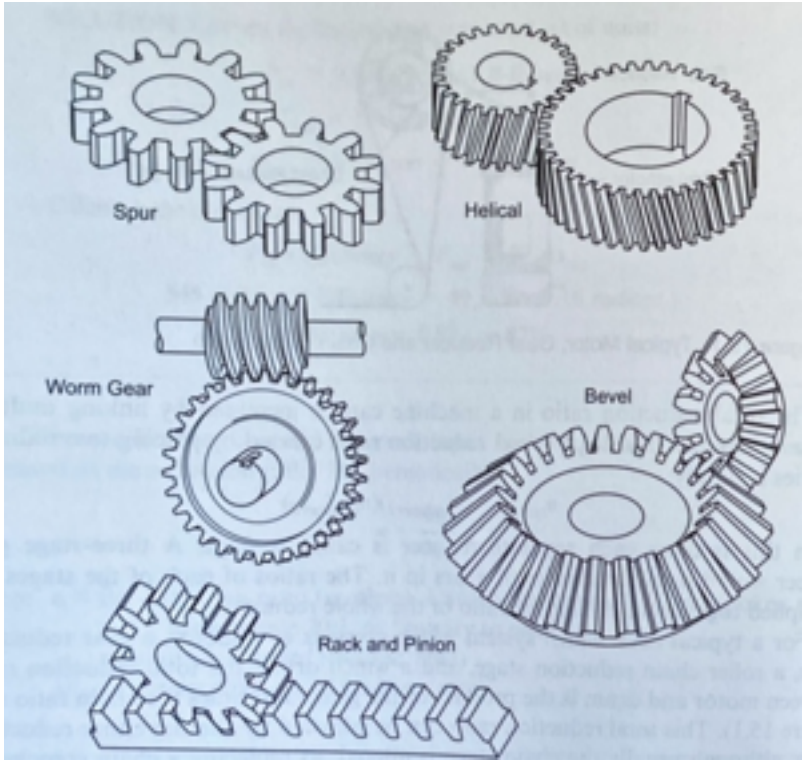
Mechanical Design for the Stage

The next book that I read to broaden my knowledge was Mechanical Design for the Stage by Alan Hendrickson (Hendrickson, 2015). Overall, I found this book very useful and interesting. This is because it went into a significant about of detail about the aspects of mechanical design and how they can be useful to be within the industry.

The physics of Stage Machinery

The first section that I was able to read and learn from was the basic concepts of stage machinery. These included:

- Fundamentals
- Displacement
- Definition of Translational Displacement
- Speed and Velocity
- Acceleration
- Graphic Relationships between x, v, and a
- Problems



I found reading about these definitions very useful. This is because I have always found the physics of stage machinery a little bit confusing. This book however made a car to me and helped me understand them more clearly.

The equations of constant Acceleration

- Equations of constant acceleration
- the acceleration due to gravity
- equations of constant acceleration

This chapter was very useful to me. This is because I was not fully aware of these equations before hand, and I am glad that I was able to broaden my knowledge of equations and how to use them.

The Forces

Through this book, I was also able to learn about the different forces used within mechanical design. These include:

- The forces to accelerate mass
- The friction force
- The lifting force
- Maximum power and force

I was not aware of these before reading this book so I found it very useful. These are aspects that I could now recognise these within the module if they were to be presented to me.

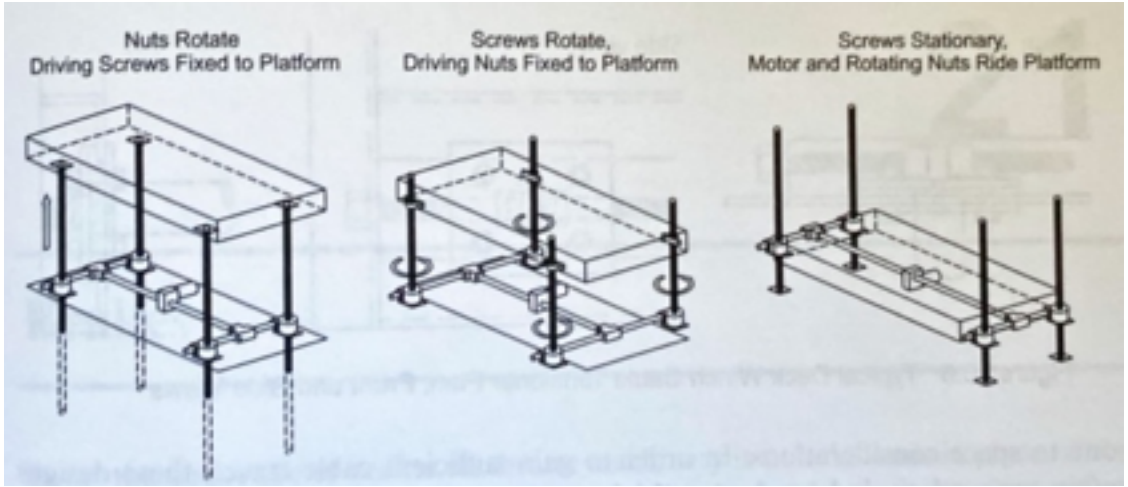
Basics of Rotational Motion

This particular section was something that I found very interesting to read about. This is because I was not aware of some of the aspects that were included within it such as angular displacement, coordinate systems, or angular acceleration. Learning about these different elements amongst several other was beneficial to be as a designer and something that I can refer back to in future.

Torque

These were also different sections about torque. I was not aware of what a torque was before reading this book and I am glad that I was able develop my knowledge of these different aspects. Some of the different torques include:

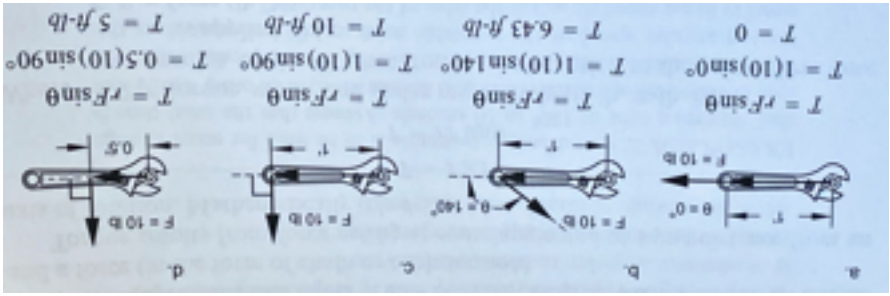
- The torque to accelerate mass
- The torque to overcome friction
- The lifting torque
- Maximum power and torque



Design

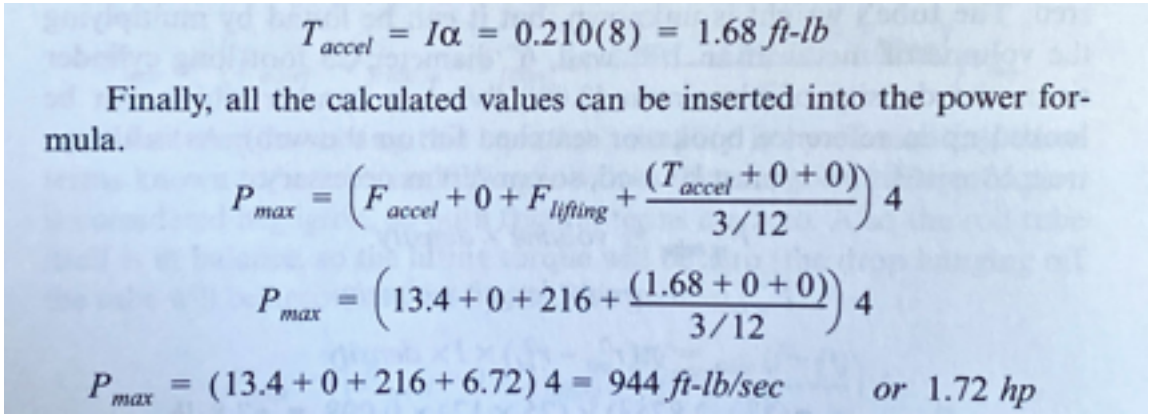
This particular section was the most interesting for me to read about. This is because I loved reading the different types of design that go into the machinery aspect of construction. I was not aware of how many there were an I am glad that I was able to broaden my knowledge. Some of these different types of design include:

- Mechanical design in theatre
- Developing a design specification
- Concept design
- Detail design
- Design for manufacture



Overview

There were son many more chapters containing useful information. Some of these included Shafting, bearings and wheels, screw mechanism, Winches, lifts, and track scenery. Everyone of these different sections introduced me to information that I had not come across before. I loved being able to learn about the importance of each of these and the aspects I would need to refer back to in order to lead to its success. I will refer back to this book in the future if I need to refresh or broaden my knowledge further.



$$T_{accel} = I\alpha = 0.210(8) = 1.68\ ft\text{-}lb$$

Finally, all the calculated values can be inserted into the power formula.

$$P_{max} = \left(F_{accel} + 0 + F_{lifting} + \frac{(T_{accel} + 0 + 0)}{3/12}\right) 4$$

$$P_{max} = \left(13.4 + 0 + 216 + \frac{(1.68 + 0 + 0)}{3/12}\right) 4$$

$$P_{max} = (13.4 + 0 + 216 + 6.72)\,4 = 944\ ft\text{-}lb/sec \quad or \quad 1.72\ hp$$

Images taken from physical copy of book.

Theatrical Design and Production

Another book which I decided to read was the fourth addition of Theatrical Design and Production by J. Michael Gillette (Gillette and Dionne, 2000) . Overall, I found this book very interesting to read. This is because I was able to broaden my knowledge on the variety of different areas and elements of the design and production in theatre and the importance of each of them within the industry. Each chapter and section also allowed me to do this.

Production Organisation and Management

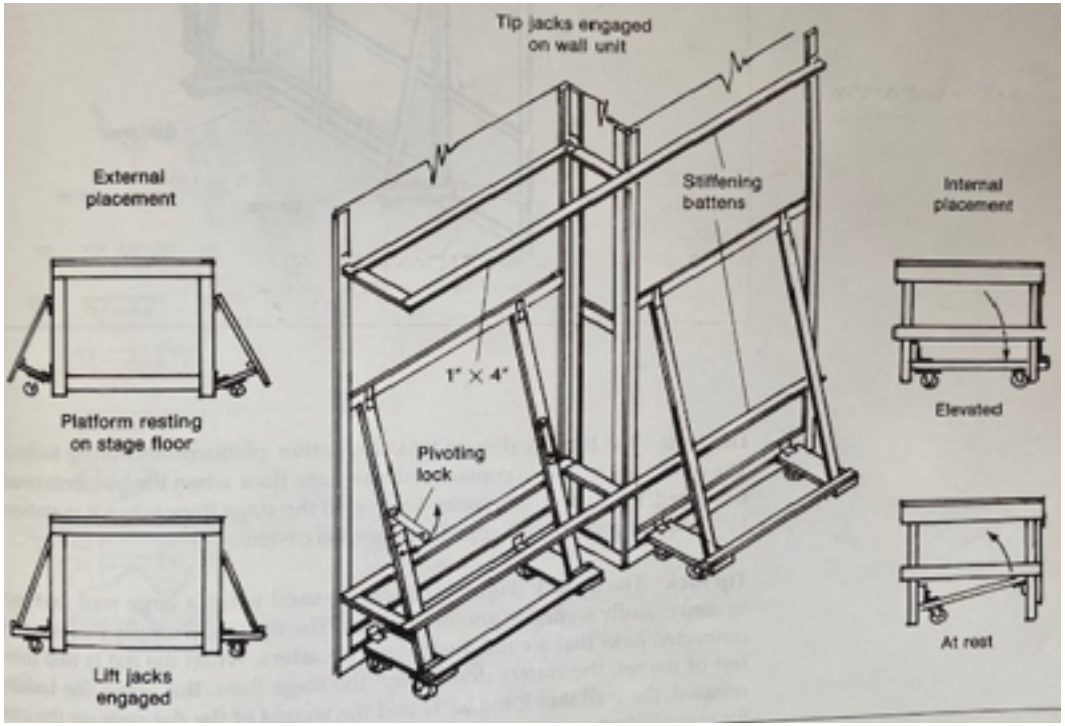
Throughout this section, I was able to broaden my knowledge on the production sequence and the production job descriptions. I found this section very useful. This is because even though I had brief knowledge of each of these areas, I was glad that I was able to further develop this knowledge to a more professional level.

The Design Process

This is the seven steps of design. These are:

- Commitment
- Analysis
- Research
- Incubation
- Selection
- Implementation
- Evaluation

I know the importance of this process within the industry.



Theatre Architecture

This was an area which stood out to me as it shows me how much it had developed over periods of time. Some of these included:

- Greek Theatre
- Roman Theatre
- Medieval Theatre
- Renaissance Theatre
- Elizabethan Theatre
- Restoration Theatre
- Modern Theatre Structures

The Stage and its Equipment

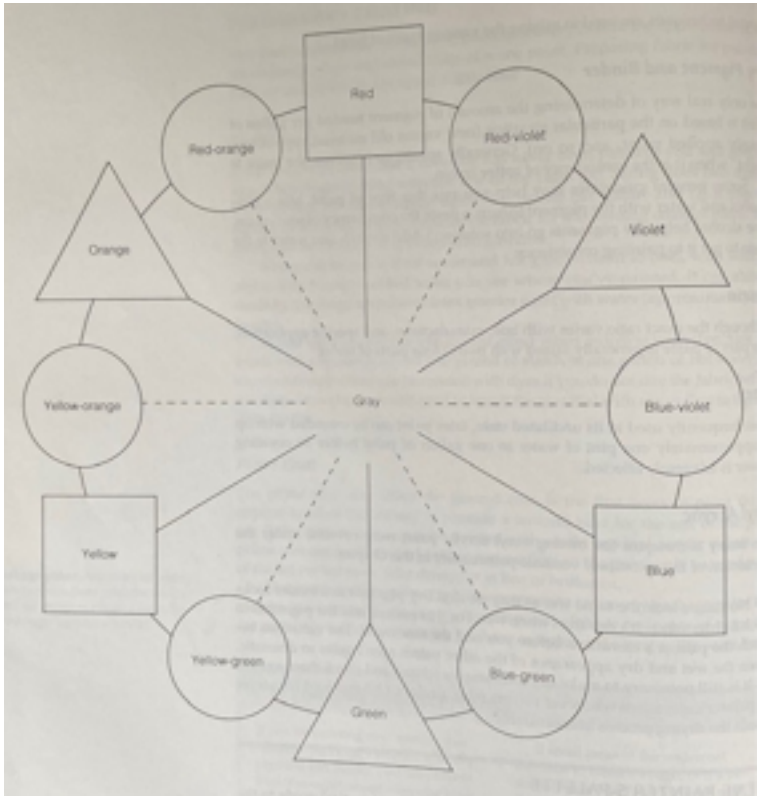
This is something that I must be aware of within the industry. This is because knowing the stage will allow me to work more officially as a designer. Knowing the different types of stages is also crucial. Some of these include:

- Proscenium Stage
- Thrust Stage
- Arena Stage
- Black Box Theatres
- "Found" Theatre Spaces

Style, Composition, and Design

This was one of my favourite chapters to read about. This is because it the the type of area I will to go down within the industry and being able to broaden my knowledge and the different elements within this area. Some of these include:

- Style and stylisation in theatre design
- Production Style
- Design styles and design periods
- Elements of design
- Principles of composition
- Design analysis of the kitchen



Colour

Even though this seems like a small area, it is extremely crucial. This is because being able to define and see colour is an element that plays a huge part in the success of a stage design. It helps create mood and atmosphere and set the scene which is something that must be carefully considered.

Scenic Design

This was my favourite chapter to read. This is because this is the area that I wish to go down in the industry I was able to learn about the considerations of the scenic designer and how carefully these must be handled. The visual presentations of scenic design is also an area that I was glad to read about. This is because it will lead to the success of the design within the production.

Tools and Materials and Scenic Production Techniques

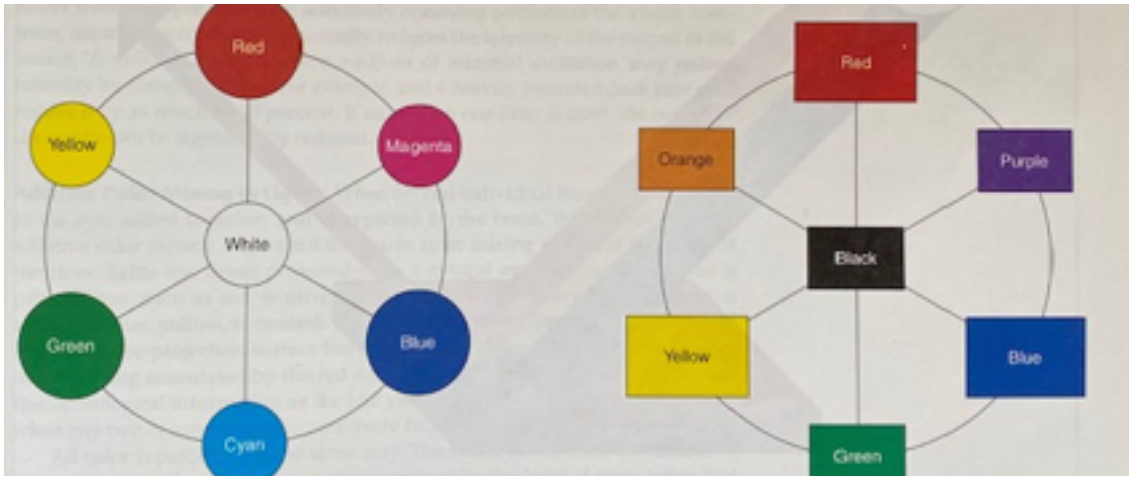
These areas were important for me to read about. This is because reading about what materials should be used and how they should be constructed is something that will be crucial knowledge within the industry and will open many more doors within the industry.

Stage properties

This was an interesting read within the book. This is because I got to read what a prop is used for, what property design is, and the different craft techniques. Looking at these elements allowed me to broaden my knowledge and possibly use them as I develop within the industry.

Overview

Overall, I am very happy that I was able to read this book. This is because it covered so many elements which will be useful to be and are crucial for me to know throughout my career within the industry. Some of the other areas that I was able to read and learn about was lighting design, costume design, make up, sound design, perspective drawing, and mechanical drafting. Even though I did not find these chapters as interesting as some of the others, it was good for me to broaden my knowledge of them and understand the roles of them within the industry. I will refer back to this book in the future if I wish to learn about these elements further.



Images taken from physical copy of book.

Tread Cladding

Previously during these construction sessions, we have constructed the treads. However, to construct them for a future production, we added more detail and a design to them. We did this by cladding them.





1. To add the detail to the treads, we first add polystyrene to them. To do this, we first traced the shape of the treads using a sharpie. When we had the shape, it then had to be cut out. To do this, a jigsaw was used. Previously during these sessions, I was unsure when using the jigsaw, however cutting these shapes allowed me to gain confidence when using this tool and I was able to use it accurately and efficiently. The shape we created was accurate and could then be added to the treads.

2. To combine the polystyrene to the treads, we use the polystyrene contact adhesive. This was applied using a thin layer of the adhesive. When this was tacky, the polystyrene was then placed onto the treads. We then pressed down on the polystyrene to ensure that it would stay in place and efficiently combined with the treads.









3. The design that we would be constructing onto the polystyrene would be a brick design. A reference picture was used when drawing the design. We used a sharpie to make sure the lines were clear. We tried to make sure both sides were are similar as possible.

4. To cut this design, we used the poly cutter. We used the thin wire to cut and altered it best to cut the design. When the wire was heated we were then able to cut the polystyrene. We followed the lines carefully to ensure that we would create the best effect.







5. After the lines and details had been cut, it was then time to shape the harsh lines. To do this, we used a hard bristle brush. We then bruised where the lines were to soften the sharp edges and create a more stone like effect.

Final Outcome



Overall, I am very happy with the outcome of this process. This is because I was able to further develop skills when using the poly cutter. I throughly enjoyed using this tool as I was able to create details that led to an interesting effect. I am also very happy with the outcome as we were able to represent the stones that we wanted. This was done by the careful consideration of when we crafted the lines and shapes to receive the best possible outcome. If I were to complete this process again, I would possibly try and go deeper when using the poly cutter. This is because I feel that it could have created a more interesting design and resembled the picture reference better. Other than this, I am very happy with the final outcome and look forward to the next stage of this design.

Work Experience- Yr Amgueddfa

I was given the amazing opportunity to work on the set of Yr Amgueddfa, which was shot in Carmarthen Museum. I was extremely excited to have been given the opportunity to work on a set, I have never had the opportunity to do this before. I learned many things whilst being on this set. For example, I was given the opportunity to work with the art department and the prop master to move the props from the set to the van in which was transporting them. This is because this was their last day on this location and everything had to be moved back to their base in Cardiff. Having a responsibility to transport these props was eye opening as they had to be handled with care and had to be stored properly. I was also given the opportunity to talk to the art department about what to expect on a set and the process within it. I loved being able to gain knowledge and advice about working within the industry and the importance of gaining connections in the right places. During this day of experience, I was given the opportunity to sit behind the camera and watch first hand the show being film. This was absolutely amazing as I could see the work that goes into the filming of the scenes and how many takes must be taken in order for the right one to be selected. I also understood the turn around phrase from this experience. One of the best parts of this experience was being able to talk with the director, Rhys Powys. I was able to receive first hand advice and knowledge about the show and about the industry in general which I loved and was very thankful for. Overall, I am very happy with how this work experience went. This is because I was able to work closely with the art department and they asked for our details for future work. Gaining this contact was extremely exciting and I am so happy that I had the opportunity to work on this set and production.



Interesting Sets

Merlin

A set design and construction which I really admire is from the BBC show Merlin. The show was aired from 2008-2012 and was a major success across a variety of different counties and audiences. The show was created by Julian Murphy and Johnny Capps and was written and produced by Chris Chibnall. The set stood out to me within this show as their were so many beautiful locations used within them. The locations of the show included Wales, France, and Kent. The sets were dressed so beautifully and created the medieval scene which was so unique and set the scene so well for the show. One of my favourite sets used in the show was the castle Chateau De Pierrefonds. This castle was the heart of the production and was so iconic. I have personally visited this location and I have found that the show had designed the sets around the location. For example, the short yard was the same but in some scenes the Camelot flags and props have been placed. Also in the thrown room, the camelot props have been placed all around the room. I really love this about the show as it is unique, and they have been able to make the location their own. The set was also altered throughout the show to introduce new characters and their roles.





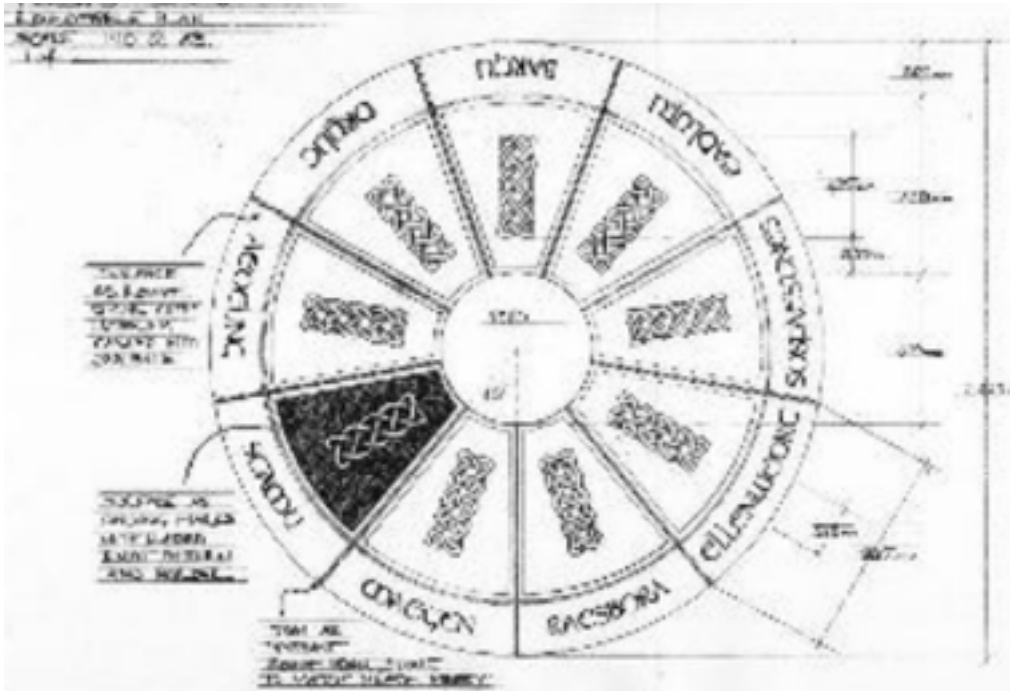
Images Taken From Google Images

Another part of the set which I found very interesting was the round table. This was was one of the key elements of the set during season 4&5 as this was the season where Arthur became King and had selected his Knights of the found table. What I found interesting about this set however was the carvings and markings made into the table. The production designer for the show, Paul Cripps stated that they had significant meaning, they are all legends and each represent each of the characters at the table:

- bargu = main king (Arthur)
- maegen = bodily strength (Percival)
- raesbora = leader in thought (Gaius)
- scamu = modesty (Lancelot)
- sósfoestnes = fidelity (Elyan)
- aeoeling = chief prince (Sir Leon)
- ellerweorc = heroic deed (Gawain)
- éadlufu = love (Gwen)

The way that these have been constructed into the table really stood out to me because it shows how much thought has been put into the design which I really love and admire. Overall, this set is something that is very personal to me as it is my favourite show and I love how carefully each part of the set has been considered. The details are something that I will consider as I further develop within the set design industry and through my course.

Images Taken From Google Images





Interesting Sets Bridgerton

Another set which I really love and admire is the set of Bridgerton. The show is set during the time period of 1800s, Regency England. The production company of the show is Shondaland and it is based on the book series by Juila Quinn. Overall, I am very fond of the set of this show. This is because I love the way that it has been constructed to represent the higher and lower classes, and it is also time period accurate. The production designer, Will Hughs-Jones, stated that they pushed "period" to the max which I really love and admire. I also found it interesting to learn that over 100 locations were used during the filming and many sets were built to make the show as accurate and as unique as possible. Gina Cromwell was also the set dresser of the show and she worked closely with Will Hugh- Jones to discuss each scene and the possibilities. I also really love the colour palette that has been selected. This is because a particular colour palette has been used for each of the main families. For example, blues and purples for the Bridgeton family and bright greens, oranges, and pinks for the Featherington family. I really love this because it is a small detail, but it is so effective. The sets have been dressed so that each part of the room stands out, and also does not pull focus from the performers of the screen. I also found the set dressing very interesting because the sets were actual historical buildings. For example, locations such as The Ranger's House, The Holbure Museum, and Castle Howard were used as part of the set. I found this particularly interesting as the buildings where dressed to represent the time period and the themes of the production, however the beauty of the buildings is not lost and adds more detail into the overall set. I was also able to learn that the sets and buildings must be handled with great care in order no the damage the actual buildings. I really love these sets designs and they will inspire my own set designing in the future.

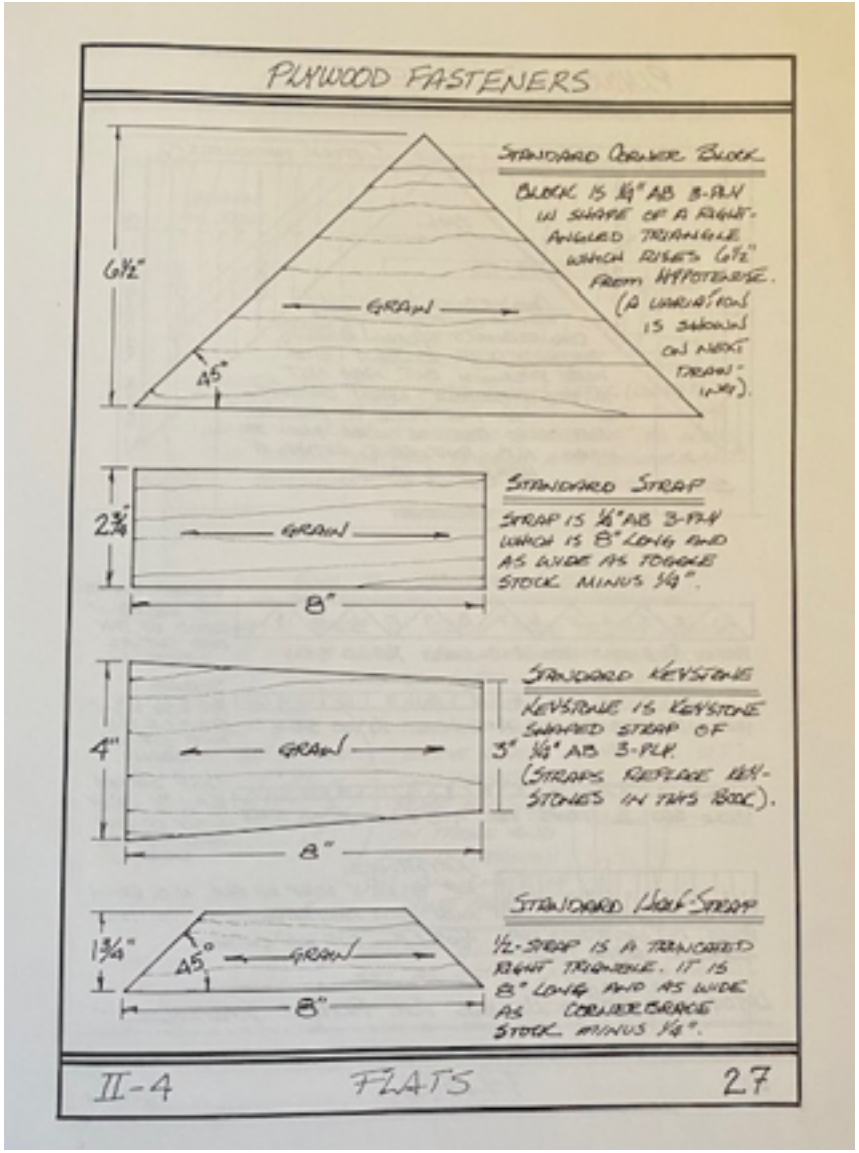
Images Taken From Google Images





Stock Scenery Construction Handbook

To help further develop my knowledge of scenic construction, I decided to read the Stock Scenery Handbook by Bill Raoul (Raoul, 1999). Each section introduced me to new ideas which will benefit my skills as a scenic construction.



The Basics

The first section of the book covered the basics of stock scenery construction. I was able to read and learn about measuring and marketing tools. This included measuring distances to jobs, measuring the sizes of the scenery intended to build, the uses of a combination square, and the uses of dividers and trammels. I was also able to read upon the importance of cutting and shaping tools. I was able to read and develop my knowledge about the different types of saws and how they can be used. The book also went into detail about the usage of knives, chisels, planes, shears, files, and routers. I was able to broaden my knowledge of fastening tools such as hammers, staplers, screwdrivers and drills. I was also able to broaden my knowledge of the materials and lumper used in scenic construction. From reading this section. I was able to further develop the skills that I already had through the process of this module.

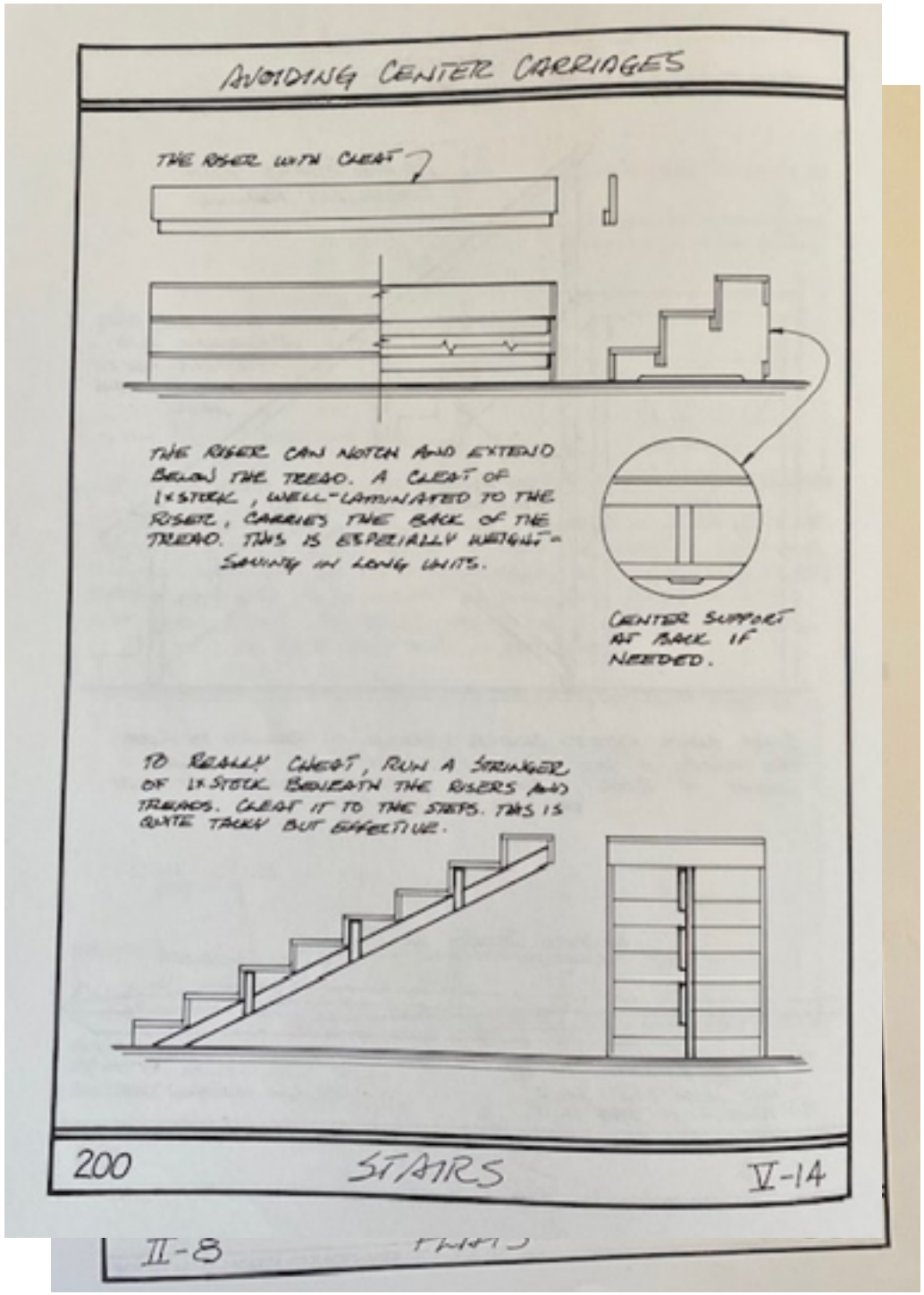
Images taken from physical copy of the book

Flats

Reading this chapter also helped develop my already existing skills. This is because I have built flats and learned about the usage of them with scenic construction. This section however also helped me develop my knowledge about flat frame component pieces and how they help the construction of the flats. The different parts of the flats are crucial for its successful construction. Learning about the different types of flats was also very beneficial for me. I didn't know that there was so many types of flats and the difference between them all. I found being able to read about them very interesting.

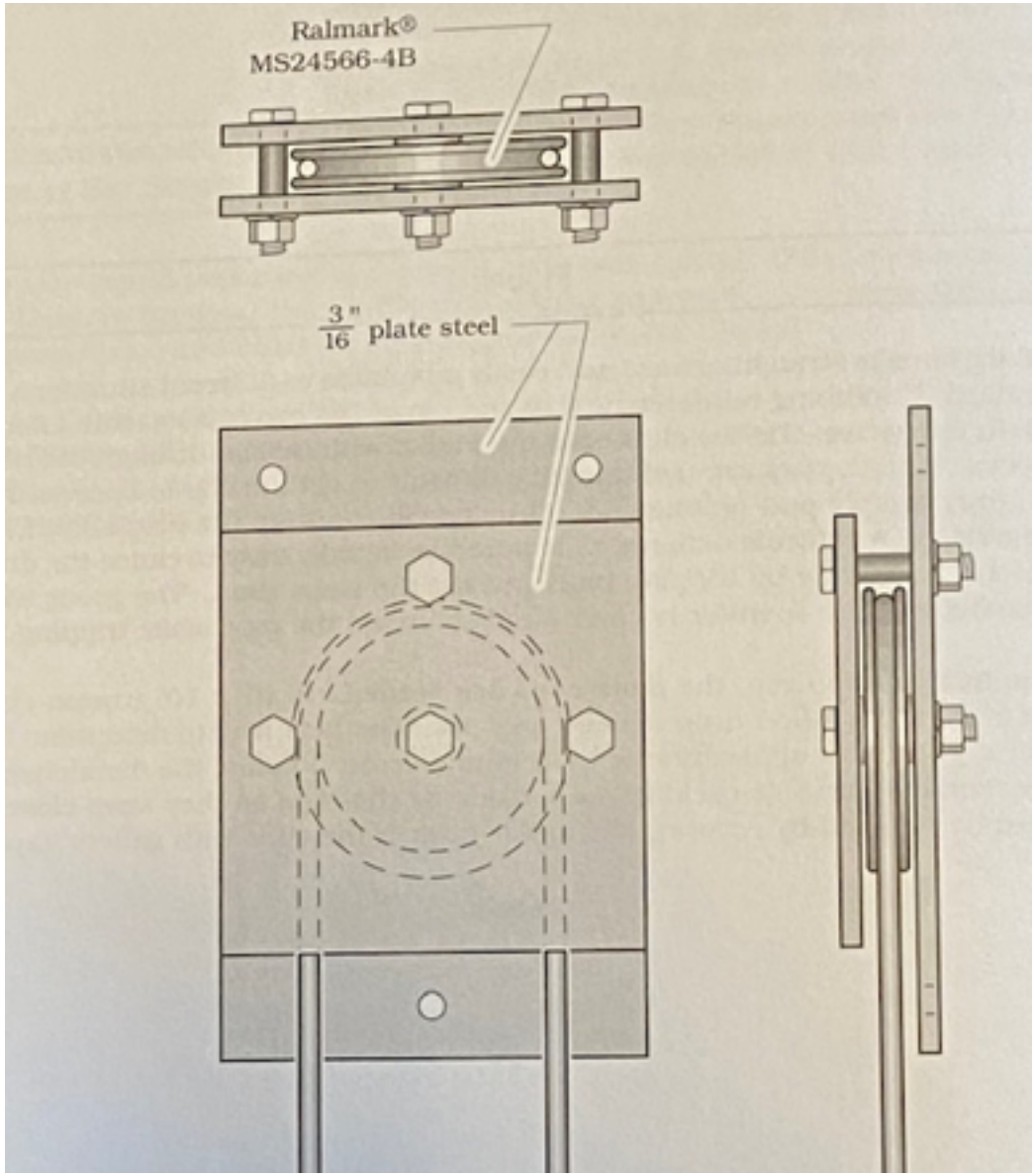
Soft Scenery

I found that I learned a lot from reading this chapter. This is because I do not know a lot about soft scenery and I was glad that I was able to develop my knowledge of it. For example, I was able to read about soft masking. I have not learned a lot about soft masking before, but I found it interesting to learn that theatres rely on it to support their scenery as if provides a neutral surround behind it. From this chapter, I was also able to learn about the importance of fire proofing, folding curtains, what the drop bottoms are, painting drops, and cut drops. I did not know a lot about these elements before hand so I was glad that I was able to one these different elements.



Platforms

This was section that also helped me develop the knowledge that I had already gained throughout the module. I was able to gain an understanding that there are two types of platforms. These include rigid platforms and folding or parallel platform. I found reading about these very interesting and understanding that they are both built to have the same outcome. This chapter also taught me the importance of understanding the size limitations that come with constructing and using platforms. I did enjoy being able to read the about the elements that make up the platforms and how each is crucial to its usage and construction.



Steps and stairs

Reading this chapter also helped develop my already existing knowledge. This is because I have learned and built treads in my lessons throughout the module. This chapter however did introduce me to the different types of treads or stairs that can be used in a scenic construction, how carriages can be used, railing that can be used, and the types of materials that can be used to construct them. I found this chapter very beneficial. The book also allowed me to develop my knowledge of the shop math which is involved in scenery construction and the importance of shop talk.

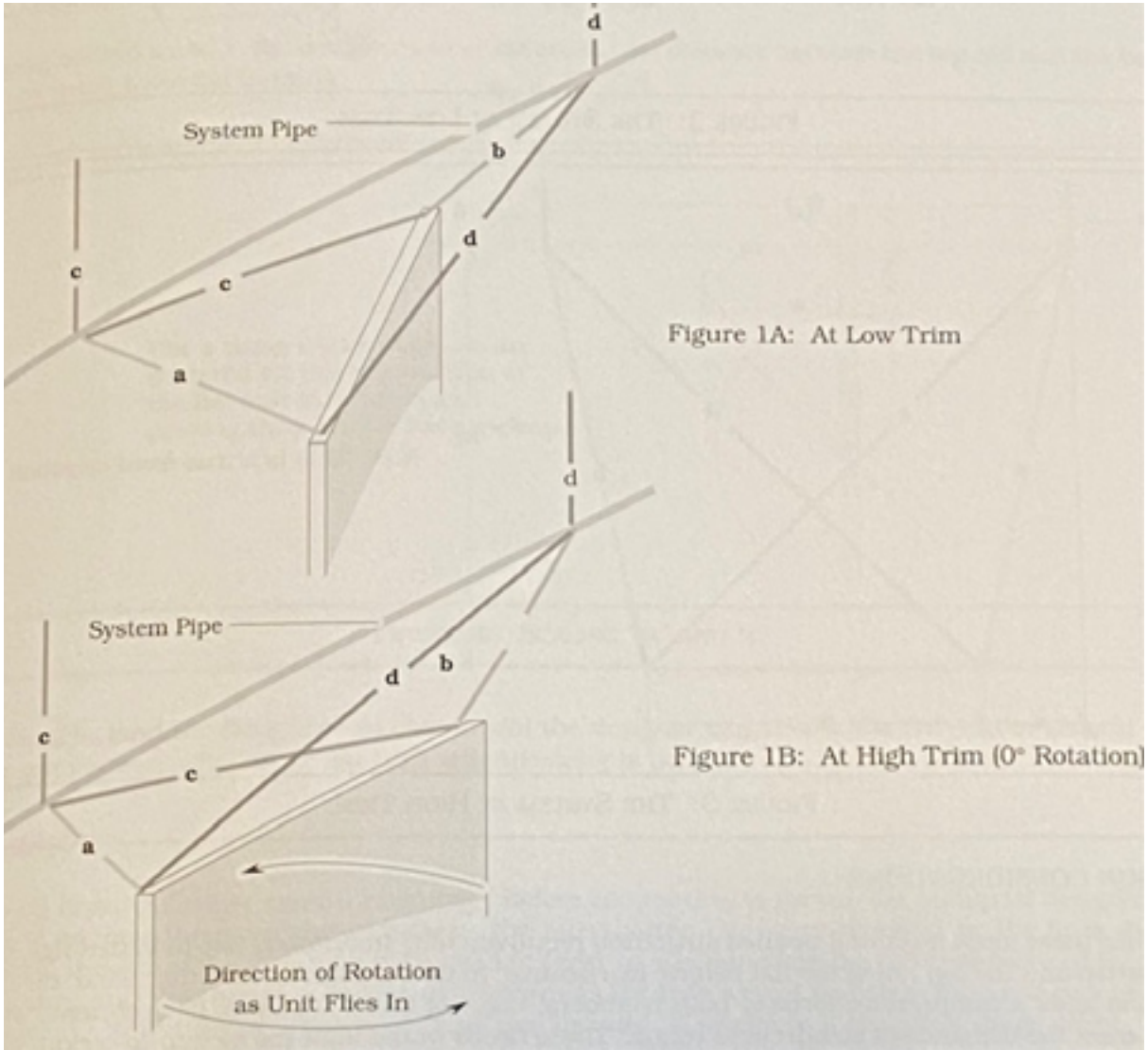
Overall, I am very happy that I read this book. This is because I found that it contained a variety of different information that will help develop my skills as a designer. From reading this book I was also able to develop the skills which I had already gained and gain a better understanding of them. I will refer back to this book in future if I wish to further develop my knowledge.

Technical Design Solutions for Theatre

Another book which I read to help broaden my knowledge was Technical Design Solutions for Theatre by Bronislaw J. Sammler and Don Harvey (Sammler, Harvey and Yale School Of Drama. Department Of Technical Design And Production, 2002). I found this book to be extremely useful as it contained a variety of useful information that will benefit my development as a scenic constructer.

Lighting and Lighting Effects

I found that reading about the lighting and lighting effects in this book to be very useful. Even though I this information is not directly related to scenic construction, Understanding and having knowledge about it can improve my ability of construction a set. This is because understanding elements such as facilities for hanging lights, light fixtures, and GOBOs can also a set to be constructed with the lighting in mind. This can be very effective in the industry.



Painting

I found that this chapter was very beneficial for me to read as painting is a key element to constructing a set. I was able to develop my knowledge of photo murals for stage, texture techniques, metallic painting, and stencilling techniques. Reading about how these process can help a stage design was very useful.

Props

I thoroughly enjoyed reading this chapter as I have a specific interest in props and how they help benefit a scenic construction. In this section I found useful information about portable water sources, live fire, growing flowers, and break away glass. Understanding and learning about the combination of these with the set was very interesting.

Scenery

The techniques in this book were very crucial to this module. I was able to develop my knowledge of laying out odd shaped raked decks ,decision trees, sawdust street bricks, and free handing curved stairs. I did not have much knowledge about these elements before hand so I am glad I was able to gain a better understanding of them.

Scenery decks

I found this chapter to be very interesting. I was able to learn about lap join decks, plat form systems, different platform units, and also non skid ground clothes. Again I found this information to be extremely useful.

Scenery Hardware

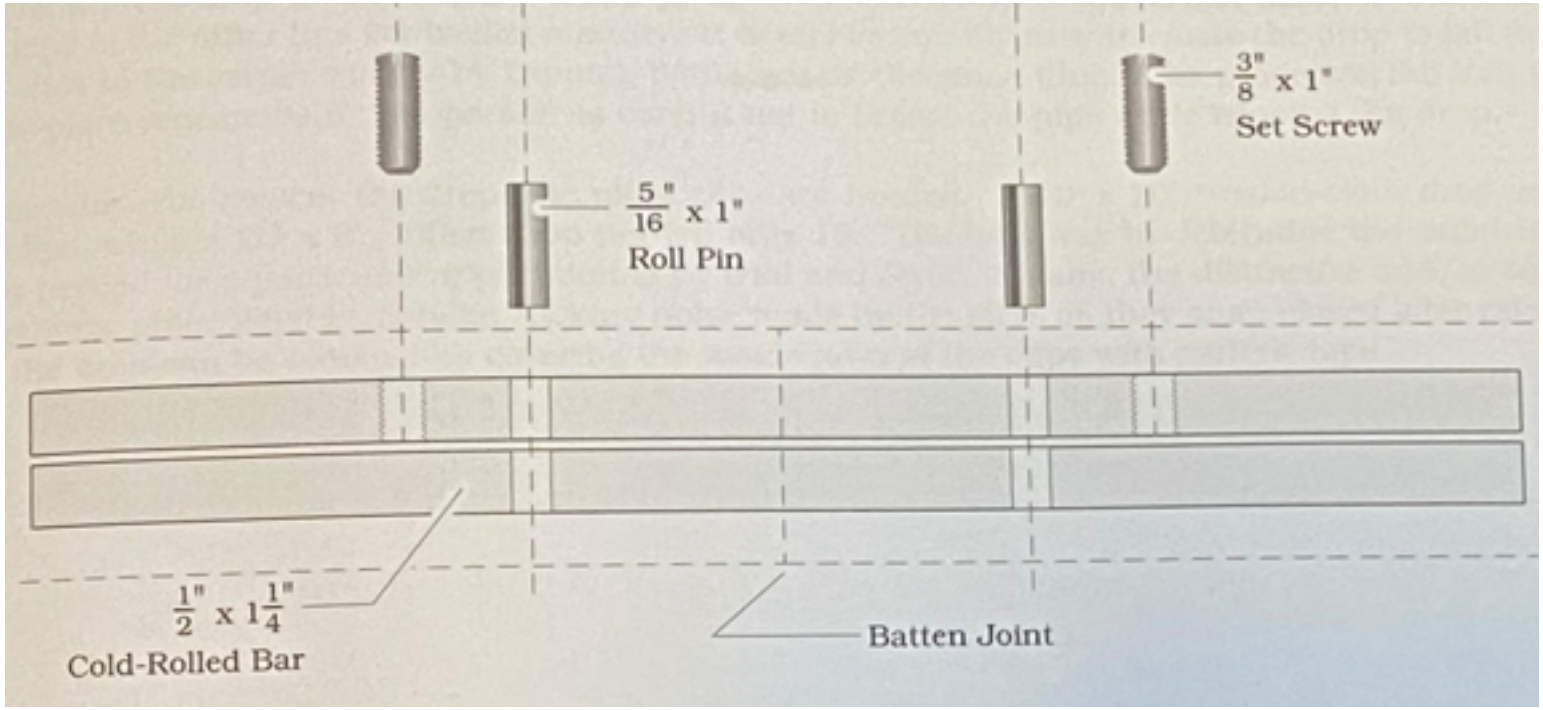
I enjoyed being able to read and learn about scenery hardware as I did not have much knowledge of it before hand. I was able to read about nylon rollers, casters, toggle clamp locks, and door hinges. I thoroughly enjoyed this chapter.

Scenery Materials

I have learned about scenery materials during my module lesson. However, being able to read more information about them was very interesting.

Some other areas that were covered in the book included scenery mechanics, scenery tools, and scenery electronics. All of these chapters I found to be very useful.

Overall, I found reading this book to be very beneficial. This is because I was able to develop my knowledge and gain a better understanding of the several different techniques used within scenery construction. I will refer back to this book in the future if I want to further develop my skills.



Images taken from physical copy of book

Bar Construction

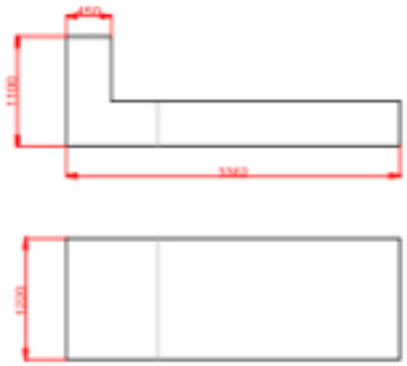
The next task which was set for the group was to construct a bar for the Charles Court Opera Kings Head Theatre and their production of Patience. The productions director is John Savournin and the design was Simon Bejer. In this sessions we needed to build the shelves for the bar. To do this we were given CAD drawings of the shelves
and had to follow the structure.

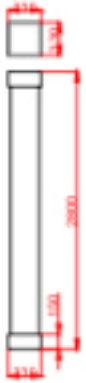
These were the CAD images which we followed and used as reference.

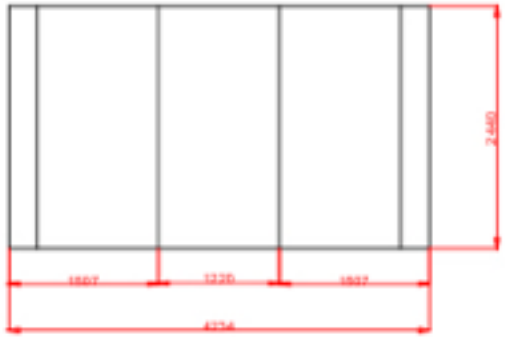
The Cutting List

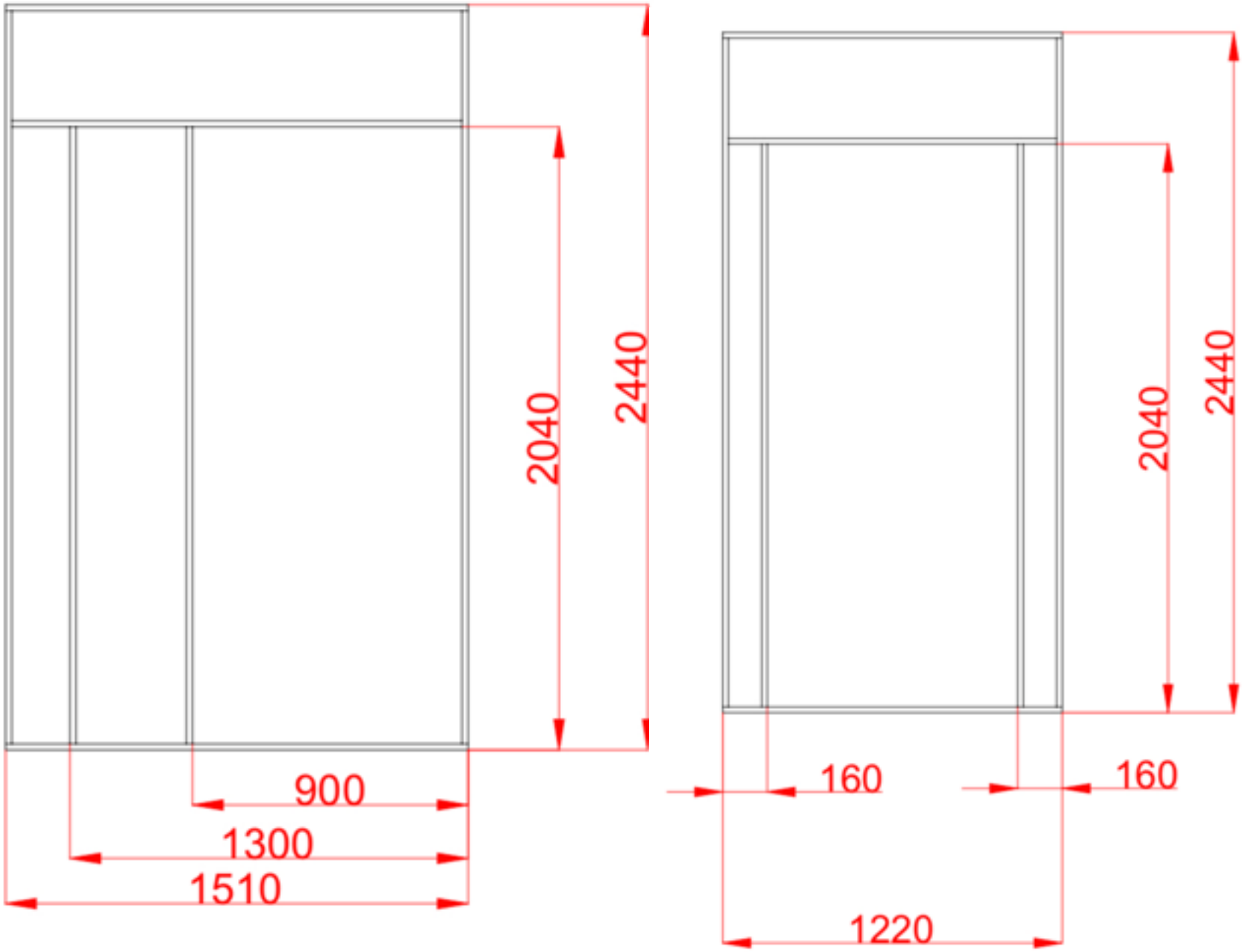
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1470 x 1
2020 x 2

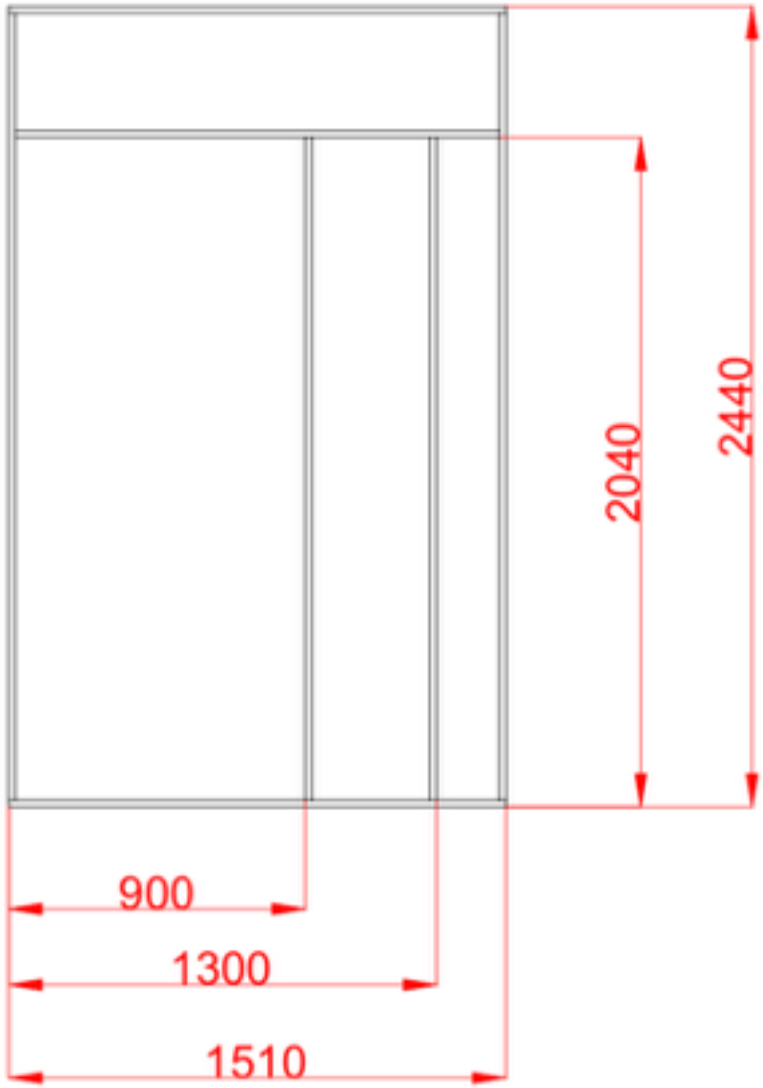
20 mm Wood

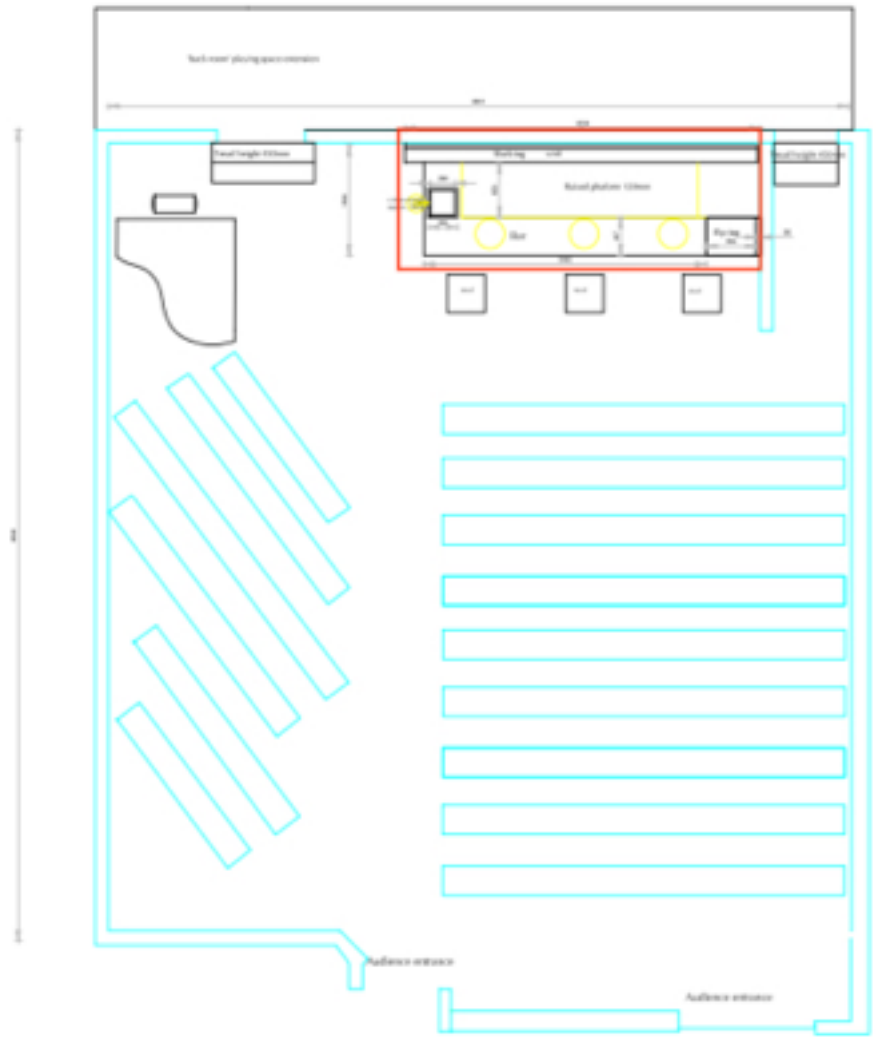







2040
2440
900
1300
1510
160
160
2040
2440
1220


2040
2440
900
1300
1510



Set Groundplan	
Production: Patience, Charles Court Opera Kings Head Theatre	
Director: John Savournin	
Designer: Simon Beijer	
Date: 27 May 2014	Scale: 1:50





1. The first step after working out the cutting list was to measure the wood. To do this, we used a measuring tape and a set square. We then double checked the measurements to make sure that they were accurate. We then cut the wood using the chop saw. We did this for all of the wood measurements.

2. When we had the pieces cut, we were then able to put them together. To do this, we placed the edges of the shelves together. We then used wood glue to connect them so that it would be a stronger bond between the pieces of wood.









3. Once the wood glue had been added, we then were able to drill in the screws. We first had to create pilot holes so that the screws would go in properly. However, we found this part difficult as the wood we were using was bending. Due to this, we had to push the wood at the opposite angle to ensure that the edges would be flushed.

4. Once we had fixed the issue with the bent wood, we were then able to add in the screws. We made sure that we drilled the pilot holes first, and we then drilled in the screws. We added two screws on the top and bottom of where the wood meets.



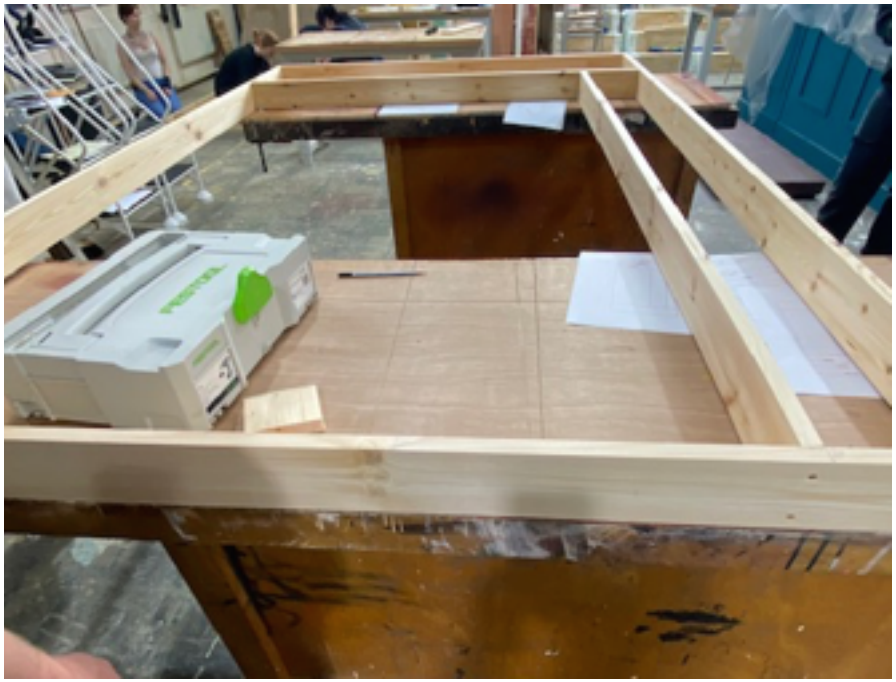






5. We did this for all of the edges so that we had the outside of the shelves. We then used the measuring tape to ensure that all of our scales are accurate.

6. When we had the outside, we were then able to work on the inside. Using the CAD drawings, we measured where the pieces would need to be placed using the measuring tape. When we had done this, we then added the pieces. To do this, we used the same method of using the wood glue, and then drilling in the screws.







7. When we had constructed the structure for the bar, we then added the shelves that the other group had constructed. On the shelf, A button pelmet button had been screwed in. We then had to add the other part onto the base. We first had to add an extra column to the section for the button to be placed. To do this, we measured a piece of wood at 200 mm and placed in side ways in between the columns. We then used wood glue and the drill to place it firmly.

8. we then placed the shelves onto on the column and made sure that it was flush. We then measured where the button would meet the base. We then marked this. When we had marked where the button would be placed, we were then able to drill them into placed, To do this we used small wood screws. We first drilled in pilot holes and then the screws. We doubled checked to make sure that the shelf would be accurately placed.





9. The next step was to then add the wine shelves in to the gaps of bar. To do this, we used 6mm ply wood. We then measures do that the two shelves would be 15 mm and 12mm from the sides of the bar. We then measured the width of the column and cut the two pieces at 289mm so that they will fit securely. When these had been cut, we then used the clamp to firmly place them. The drill was then used to make pilot holes and to put the screws in. We also add smaller shelves the the small column of the bar. There were created using the 3mm ply wood. They were then to be placed every 600mm and they were 150mm long. These were then placed with the drill and screws.

10. Another part of this bar construction was to clad the shelves. To do this, we used ply wood. we traced the shape of the shelve on to the ply wood, and then used the rail saw to cut out the shape. We left extra wood as it would then be later cut to the correct shape once it had been placed. We then attached the ply wood by using the wood glue and the staple gun. As the wood was moving, we used the clamps to make sure that it would stay firmly in placed. This was then ready for the over group to then trim.





Bar Set

This was the bar set prior and before we constructed and added the shelves which we created for it.





Final Thoughts

Overall, I am very happy with the outcome of this construction. This is because even though the second group finished it, I enjoyed being able to construct a set and contributing to its completion. I was able to improve my measuring skills during this task as even though I was able to do it before hand, this task made me realise the importance of making sure that they are accurate as it can disrupt the entire progression. I was also able to learn about how measurement may need to be changed from what they were originally depending on factors that may have changed. There were some issues when constructing the bar. For example, the wood that we were using was curved which made it difficult when being to drill the pieces together. To help solve this issue, we used the clamps to try and straighten the wood as much as possible so that we could drill it together. Overall, I am happy with our contribution and glad I was able to use the skills that I have developed throughout this module.

Projector box construction



1.Another task which we were set was to construct a box where the projector will be placed for the 200 display. To construct this box, we used water proof MDF. To create this box, we were given the following measurements:

360 x 300 x 173mm

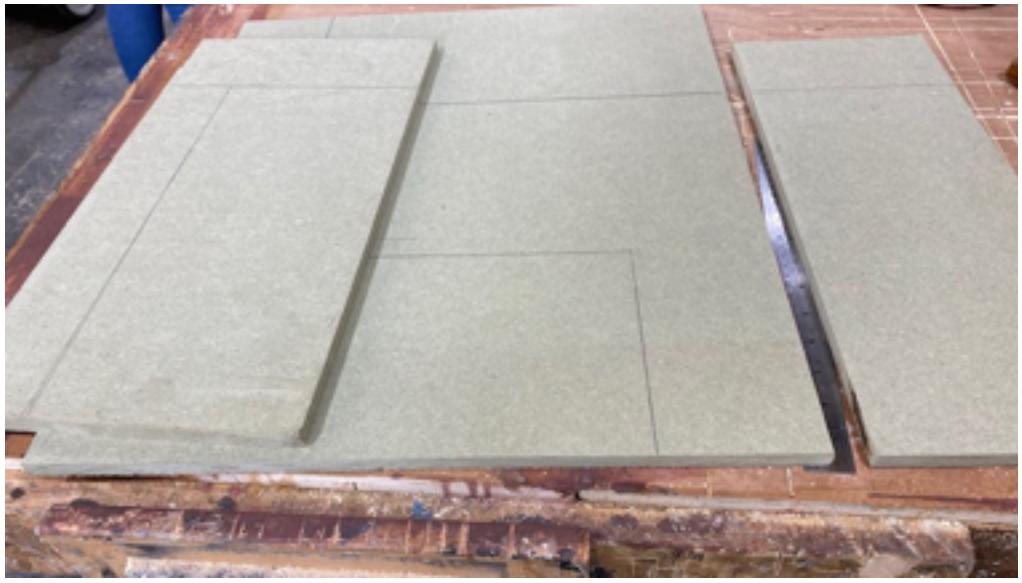
we added an extra 20mm to ensure that there will be enough room of the projector. The wood was also 13mm in width to we too away from the measurements. The final scales to cut were:

373 x 313 x 173mm

2. Once we had the measurements, we then began to measure the wood. we measured out the following:

2- 373 x 313mm
2- 313 x 173mm
2- 373 x 173mm

We used the measuring tape to do this. When we had the correct scales, we then cut then using the table saw and the chop saw.



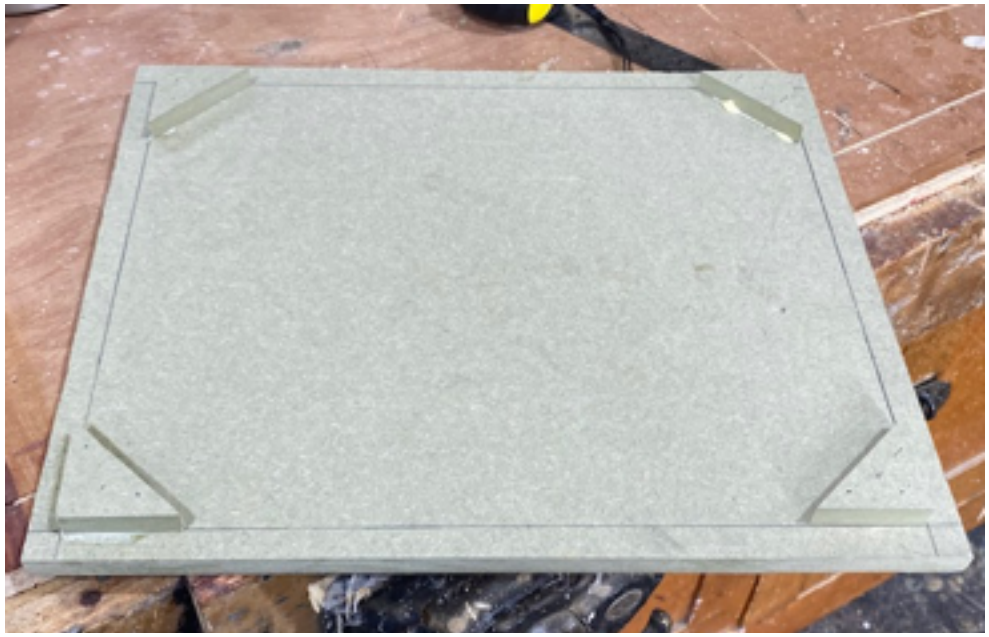


3. When we had all of the pieces cut, we then placed them together to make sure that they would fit. However, we found that some of our measurement were in accurate and the box did not fit together as it should. Due to this, we then had to re cut and measure some of our pieces. We double checked to make sure that these were accurate.

4. When we were sure that all of our pieces were the right scale and fi together properly, we then combined them together. To do this, we first used the wood glue. We the used the staple gun along all of the edges. As it was a small construction, we used single pin staples.

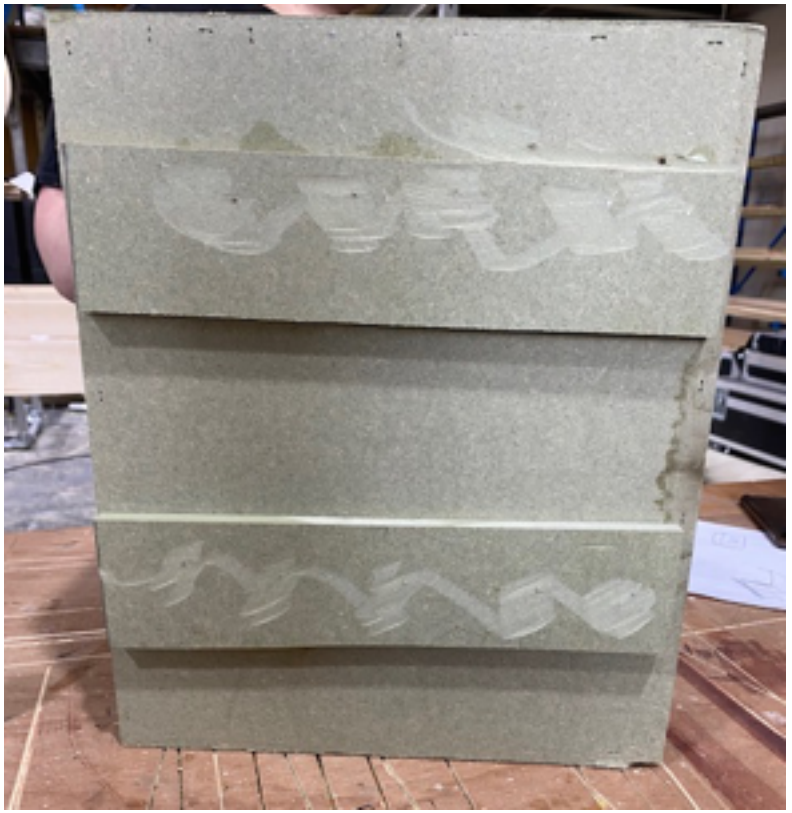






5. We also added supports on to the lid of the box. This was to make sure that it would stay firmly on top of the box. We used more MDF to create four triangles to go on each corner. We also placed them using the wood glue and the single pin staples.

6. As an extra step, we added a base to the box. To do this, we took two pieces of the MDF and placed them in the middle of the box of the box. We used the wood glue to place them and then used the staple gun from the inside of the box. Some of the pins went through, so we used the angle grinder to shorten them.



Final Outcome





Overall, I am very happy with the final outcome of this box. This is because we were able to construct the box so that the projector could fit properly into it. Even though we had some issues with the measurements, we were able to overcome the issue and re measure so that the box would fit together. I also found it interesting to use the single point pins as I have not had the opportunity to work with them before. I am happy with the final outcome and glad that will be a useful contribution to the 200 project.

Task 7

To complete this task, I looked over work that I have created over the past couple of weeks. I did this to ensure that all of the work was completed to the best of my ability and clearly presented the work that I have completed, and what my thought process and feelings were during it. I also read through my work to make sure that it clearly reflected how the tasks had effected me. I also read through my personal research to ensure that it had a clear relation to the module and showed that I have further developed my knowledge. I am very happy with the process that I have made with my process work book so far. This is because I have been able to develop and broaden my knowledge of how sets and props are constructed within and for the industry. I have also been able to develop my skills when using tools. I have been very happy with this because even though I have used tools in the past, I have never been that confident when using them and I am happy that this module has made me more confident when doing this.

Task 8- How can flats be joined together?

There are many methods of doing flats. Looking at the book stock scenery construction (Raoul, 1999, some of the these include:

Batterning

Ensure a certain amount of rigidity is the most common way to join flats. A strip of 1x3 batten would be placed faced down across the fails and toggles. Two flat- head screws would be added to each end to secure the batten.

Advantages

- Fast way of combining the flats
- It is a simple method
- Ensure the flats are safe for use

Shortcomings

- A temporary method
- Can bend
- Cannot take too much weight

Hinging

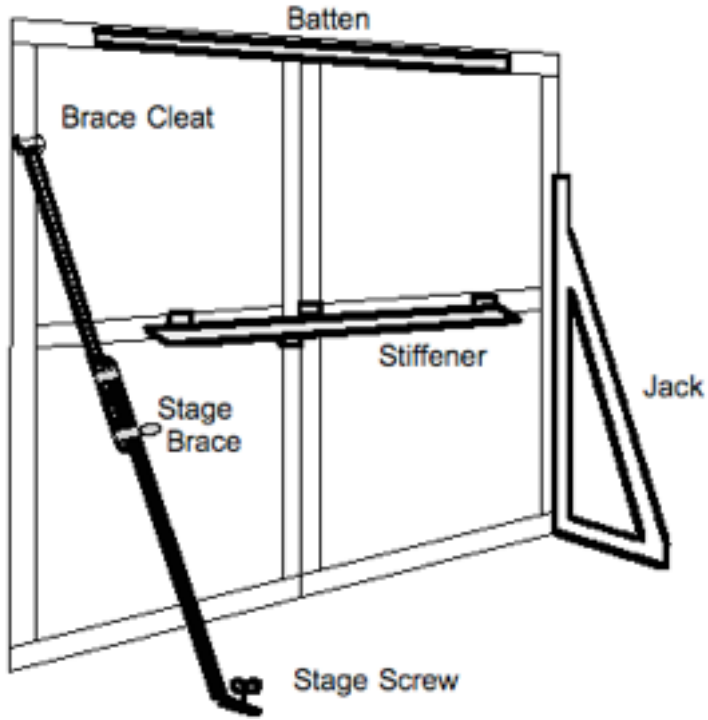
Hinges are used to create a wall of flats that can be folded into compact units. The hinges can be placed at either the front for back of the flats. If they are placed at the back, 1/4 blocks must be placed under the hinges so they fold like they are intended.

Advantages

- Prevents the flats from warping away from each other
- Can be stored and transported easily
- If shown they will not not ruin the effect

Shortcomings

- If the flats are heavy easy to move factor would be defeated
- On three fold and large groups of flats, they can force a bind on the hinges



Images taken from physical copy of the book

Lash Hardware

This is the method of tying flats together by criss crossing a light weight line around metal cleats and fixing the taut line in a knot.

Advantages

- A basic method
- Allows a quick and easy make up to be created
- One of the fasted methods

Shortcomings

- It is expensive
- Must be carefully considered

Cleat and throw line

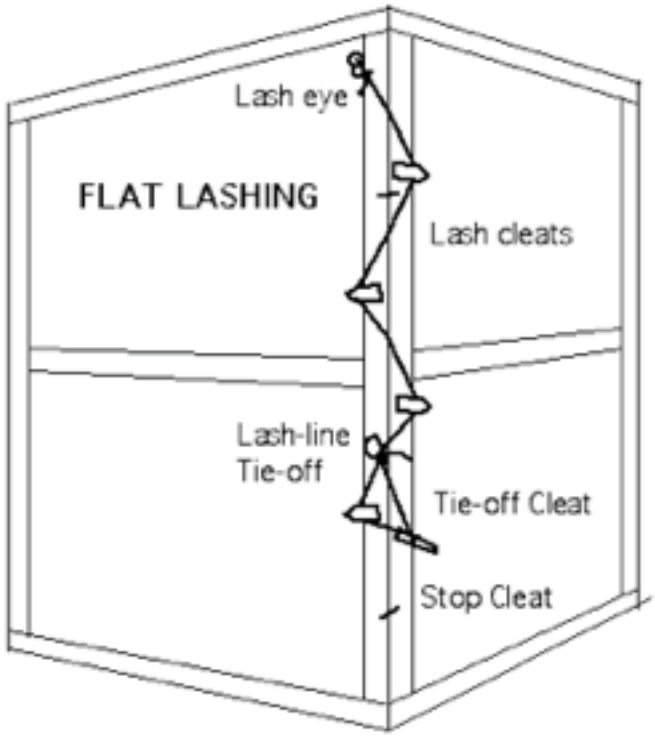
Cleat and throw line is a very common method for joining flats. A cleat is a metal bracket that a rope can be tied to. The throw line is a rope used to hold the flats together.

Advantages

- A simple method of combining the flats
- flats and easily be attached and re attached

Short comings

- Cleats must be placed specifically
- Can come apart if not attached properly.



Images taken from physical copy of the book

The invention of the cleat and thrown line has made it easier for the flats to be joined together. This is because they allow the flats to be joined and taken apart easily and numerous flats can be joined together at a time. Another invention that has made joining plate easier is pin hinges. Pin hinges are screwed to the flats to allow them to be held securely. Overall, all of these methods are useful, However they must be carefully consider to ensure which is the best option for the use of the flats.

Task 9- Melding and Metalworking

As well as wood, welding and metal work is involved with set construction. There are four types of welding that are used. These include:

MIG – Gas Metal Arc Welding (GMAW)

It is the most common type of welding used. This type of welding is used in the auto industry to repairing vehicle exhausts. It is also used in building. It also uses a continuous wire, which is called a electrode. Shielding gas can also be used.

TIG – Gas Tungsten Arc Welding (GTAW)

This type of welding is used in many different industries. This type of welding requires an electrode called tungsten, which is one of the toughest metal materials. The welding is created through fusion.

STICK – Shielded Metal Arc Welding (SMAW)

This type of welding is portable. It is used in construction, maintenance, and repair. A consumable protected electrode is used during this type of welding. The stick also softens and combines the metals.

FLUX-CORED – Flux- Cored Arc Welding (FCAW)

This type of welding is similar to MIG welding. This type of welding requires a continuous wire which will them be combined with a base metal. The tube is filled with flux that is then fed through the welding gun. This type of welding is used for welding thicker materials and used in machinery industries.

Forms of metal

Like wood, length of metal can be purchased in different forms and lengths. The stock forms in which metal can be purchased in includes:

- **Sheet**
- **Rod**
- **Bar**
- **Tube**

When constructing scenery with metal, these different forms would be considered and chosen depending on what is best for the construction. The pricing of metal is also considered depending on the form, length, width, height, and diameter of the metal in question and how much is required of it.



sizes

Sheets of metal can be brought in the following sizes:

-
- **36" x 96"**
- **36" x 120"**
- **36" x 144"**
- **48" x 96"**
- **48" x 120"**
- **48" x 144"**

Four Factors

There are also four factors that must be considered when purchasing sheet metals. These include:

- **Gauge**
- **Thickness**
- **Weight**
- **Size specifications**

Images Taken From Google Images

Wood vs Metal

As they are completely different materials, the cost between a metal and wooden set will be significantly different. Typically, metal sets are more expensive to construct. This is because metal is harder to get a hold of and it in high demand within the industry. Timber is also in high demand, but is a material that easier to get a hold of. Where a set made of wood would cost £15,000 to construct, a metal set can cost around twice this much. Factors must be considered when constructing a set demand on the budget and type of set in which is being constructed.

	THICKNESS		WEIGHT PER AREA	
Gauge	Inches	Millimeters	Lbs/sq Foot	Kg/sq Meter
8	0.1681	4.27	6.858	33.482
9	0.1532	3.891	6.25	30.514
10	0.1382	3.51	5.638	27.527
11	0.1233	3.132	5.03	24.559
12	0.1084	2.753	4.422	21.591
13	0.0934	2.372	3.81	18.603
14	0.0785	1.994	3.202	15.636
15	0.071	1.803	2.896	14.142
16	0.0635	1.613	2.59	12.648
17	0.0575	1.461	2.346	11.453
18	0.0516	1.311	2.105	10.278
19	0.0456	1.158	1.86	9.083
20	0.0396	1.006	1.615	7.888
21	0.0366	0.93	1.493	7.29
22	0.0336	0.853	1.371	6.692
23	0.0306	0.777	1.248	6.095
24	0.0276	0.701	1.126	5.497
25	0.0247	0.627	1.008	4.92
26	0.0217	0.551	0.885	4.322
27	0.0202	0.513	0.824	4.023
28	0.0187	0.475	0.763	3.725
29	0.0172	0.437	0.702	3.426
30	0.0157	0.399	0.64	3.127

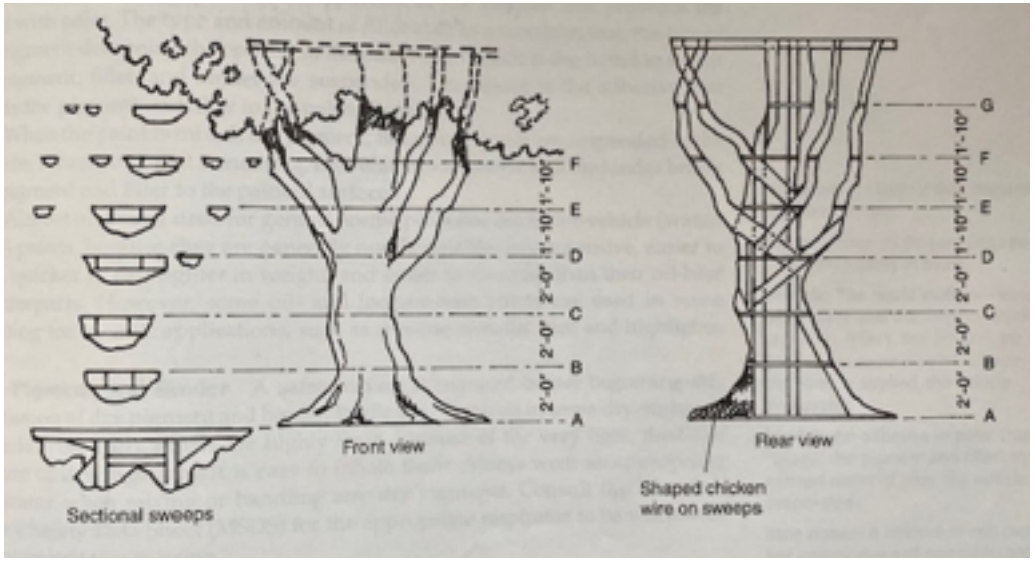
Images Taken From Google Images

Task 10- Construction of a Tree

In the industry, there are many ways that a tree can be constructed. When a tree is being constructed so that the performers can use it within the production, it must be secure and safe.

The tree would need a strong base in order for it to support its self, and also to hold the weight of people. Referring back to the book Theatrical Design and Production, there is a specific way to build 3D trees for a stage production. They are built on basic frame work, using the principles of flat construction. There is then plywood or stock sweeps attached to the frame work, and is then covered with a variety of different materials. This is to help create the appearance of a realistic tree and create a bark effect.

Another method that can be used is covered the tree construction with heavy wire and chicken wire, which is then sprayed with foam. When the foam has cured, it can then be carved to the needed effect and appearance. This could be to form the appearance of bark or other desired effects. The material allows it to be painted using acrylic paint, or coatings to create a smoother surface that can then be painted over.



Images taken from physical copy of the book (Gillette and Dionne, 2000)

There are also other methods that can be used to construct a 3D for a production. For example, cutting out and using a semi circular as tall as the tree needs to be. This is then built using 2x4 pieces of wood and then acts as the trunk of the tree. Chicken wire can then be is then wrapped around and spread to fill the gaps and is then secured using staples. If a smaller tree is required, 2x4 or 2x6 can be attached to the base of the tree. These boards can then be added to form branches and the trees overall shape. All of these methods would allow the performers to climb on to the trees as flats would be constructed into them, creating platforms. However, there would need to be safety regulations but into place.

Another interesting way for a tree to be constructed for climbing purposes is using a ladder, and then using polystyrene cladded around it. This is a popular construction technique as it is a cheap and easy form of construction, and it can be altered and designed easily. The ladder will also allow the performers to climb the tree safety. The polystyrene is cladded around the ladder to conceal it from the audience and allows it to be manipulated easily. For example, creating a bark effect to create more of a realistic effect. It can also be manipulated to the correct shape of the desired tree. Using ladders to construct a climbable tree is a very popular method. This is because it allows a safe method for the performers and they can use it multiple times without worry. The placement of the ladder though needs to be carefully consider. This is because it will need to be placed so that the performers can be easily seen by the audience, and also so that the actual tree construction is not damaged. This is something that I must keep in mind within scenic construction.

Attachment

Depending on what material is used to construct the tree, there are different ways for it to be attached to the state for safety. For example, if lumper or plywood was used to construct the tree, it can be attached using screws. Another method of attachment is by clamping. C clamping can sometimes be used to attach the tree, however, they also allow it to be moved if necessary.



Materials

A variety of materials can be used to construct a tree for a production. These include:

- Lumber
- Ply wood
- Metal poles
- Polystyrene
- Foam
- Acrylic Paint
- Ladders

Cost

The cost of building the tree can vary depending on the types of materials used. For example, using the heavy paper, chicken wire, and foam method is one of the best in regards to cost effectiveness as a roofing contractor can be called in who is used to this type of work. Also the type of material used will also have a major impact on the costing. At using pieces of ply wood and polystyrene to construct the tree, I estimate that it would cost around £300- £400. I estimate around this price because The ply wood can be between £20-£30 per piece and will depend in how many will be needed. Also the cost of the polystyrene would also need to come into play.

Time and Resources

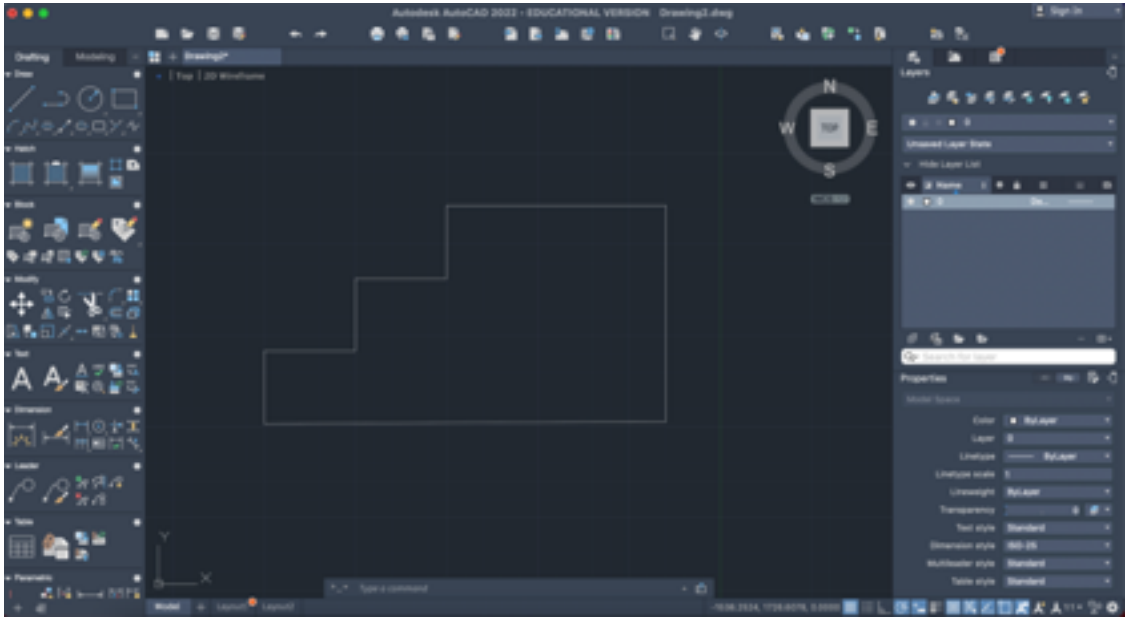
The resources for the construction would include the materials needed, the construction and design team, and the tools required in order to construct. These could vary depending on the materials which are being used and what effect which it is supposed to have. The construction of the tree could possibly take a week to construct depending on the resources on hand, the number of people working on it, and the scale of it. It cannot be given a specific time scale.
From this research, I have found that there are many ways that I could construct a tree for a production. I have also found that each of these methods that ensure that the tree will not overwhelm the stage. For example, the tree could be manipulated to represent bark, but does not make it the focus of the production. Also, the types of material used and the scale can be manipulated to be sure that it does not over whelm the stage.

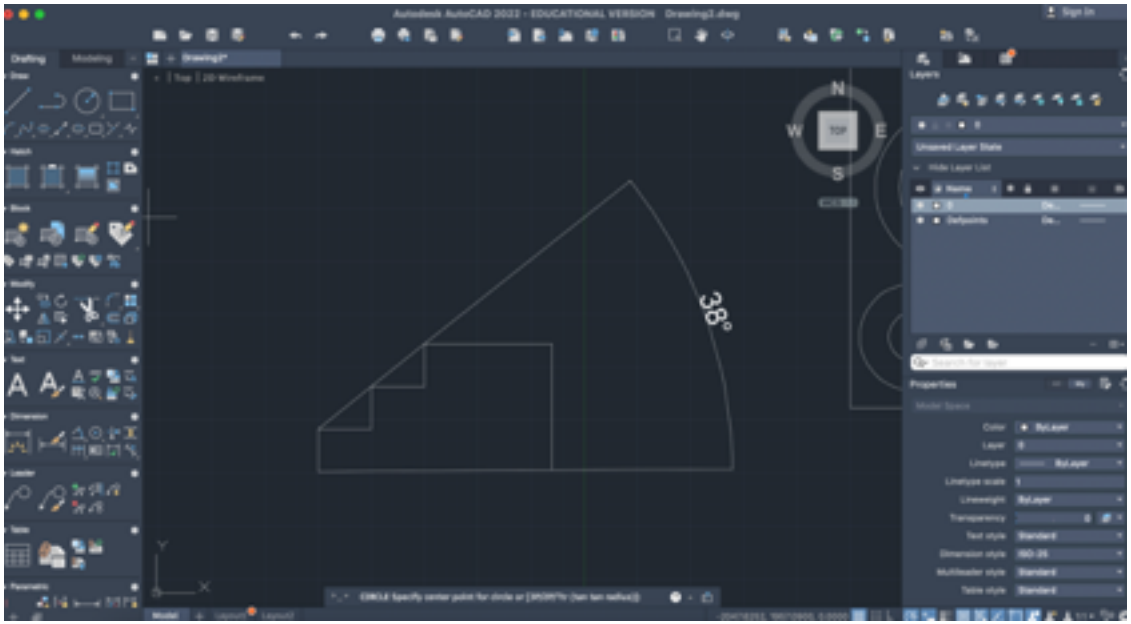
Images taken from Google Images and the following link: https://www.youtube.com/watch?v=D4xVOVcWXwI

Task 11- CAD

Treads using CAD

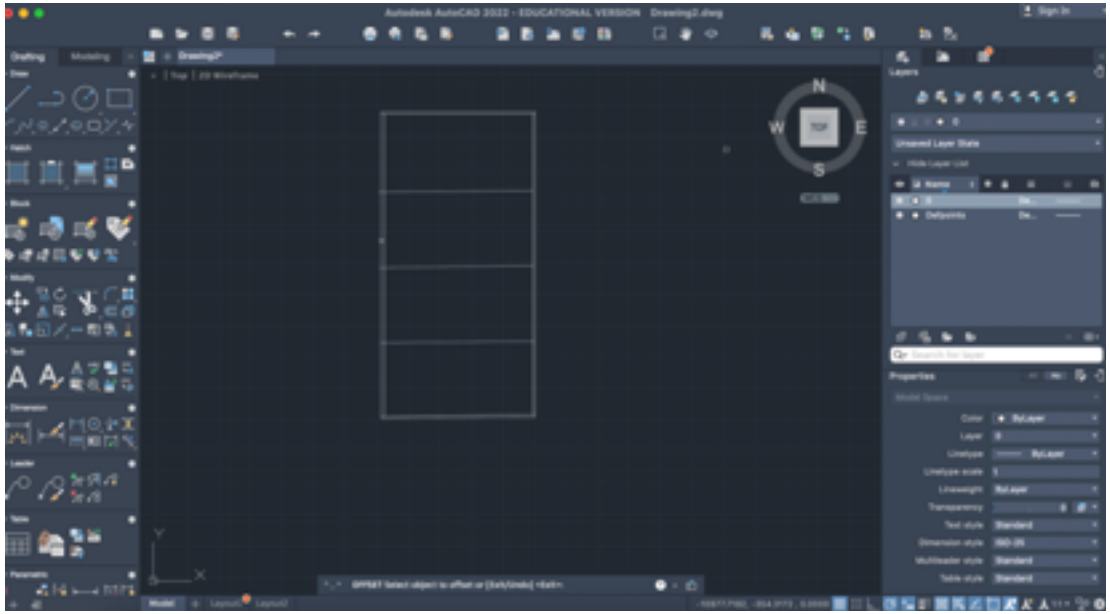
For this task, I created a CAD to draw a third angle orthographic technical drawing of the treads that we created in class. To create these, I selected the drawing tool and used a scale of 200 up, and 250 across. The top I then set to 600. This would make it accurate to the treads that we created in class. As I do not have that much experience using CAD, I found that this task allowed to to develop my skills when using this program. To add further detail to the drawing, I worked out the critical angle to ensure that the treads would be safe to use on stage and by the performers. To work out this angle, I select the dimension angular tool to ensure that the angle was accurate. At 38°, the critical angle was accurate. Overall, I am very happy with the outcome of this CAD drawing. This is because it is accurate and designers could create an accurate construction from it.

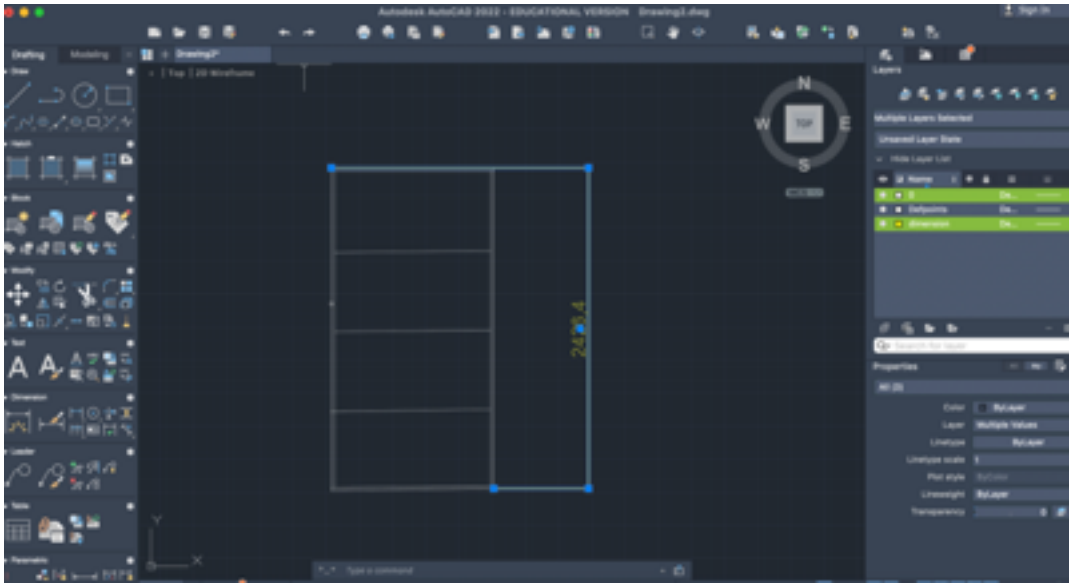


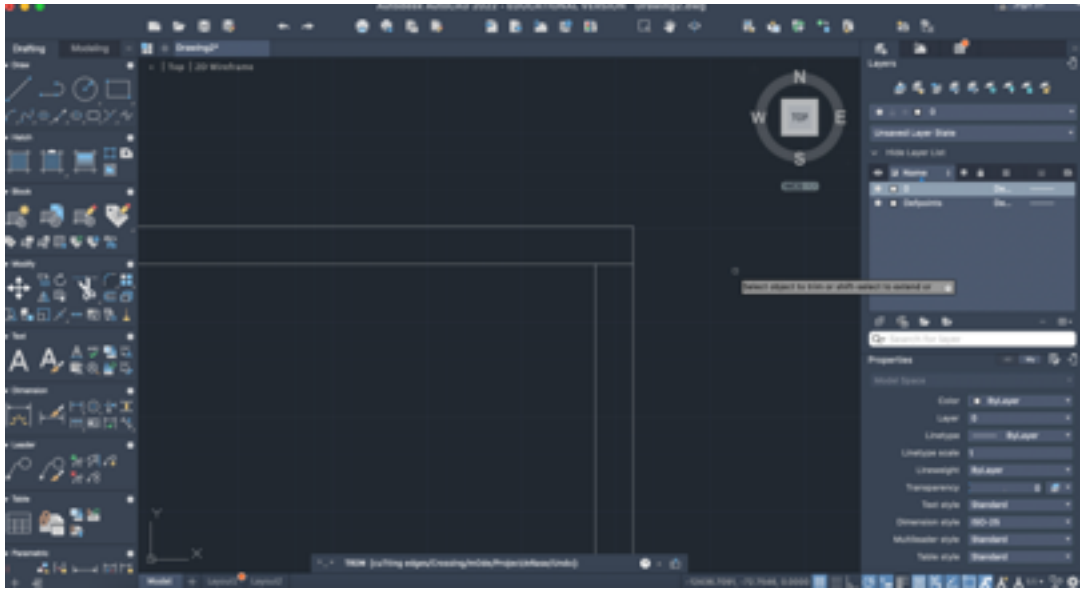


Flats using CAD

Another CAD drawing that I created was of the flats. To do this, I first had to create the scale of the flat which was 2440 x 1220. The next step was to create the width of the wood. To do this, I used the off set tool and placed it on the inside of the the scaled flat. Once I had done this, I then created the toddles to go on the inside of the flat. To do this, I selected the off set tool and selected 600. I then clicked where I wanted to place each of the toddles. To remove and extra lines, I selected scissor tool and clicked on the lines I wanted to remove. Overall, I found creating this flat layout very interesting and beneficial. This is because I was able to create a plan that a scenic constructor could follow. This drawing allowed me to further develop my skills and understand the importance of accurate scales and how they can effect the final outcome of a scenic construction.







Task 12- Cladding Scenic Elements



Different types of materials can be used to clad scenic elements that need to be three dimensional. Some of these include:

Ply Cladding

Ply cladding is a popular choice cladding flats. This is because the sheet of ply allows a surface that can be altered and a adjusted depending on what its use will be in the production. Ply wood is also used to clad other scenery within the industry.

Timber Cladding

Timber cladding is a very popular choice of cladding for an exterior finish. The timber is cladded to interior structure to become the exterior structure. It is also an easy material to get a hold of.

Metal Cladding

Metal cladding is also used in the industry, however it is not as common as some other cladding materials. This is because metals such as aluminium or steel can be difficult to get a hold of a metal is being use more frequently throughout the industry. It can also be very expensive to use.



Polystyrene Cladding

This is a very popular use of cladding in the industry. This is because it is an easy material to get a hold of and can be easily manipulated depending on what they are needed for the effect they intend to have. It myst be carefully used however as it can be manipulated easily and the affect needed may not be achieved.

Cladding in Class

I have personally used polystyrene cladding during lessons. I was given the task of cladding the treads that we had constructed. They were combined using wood glue and the poly cutter was used to create the brick designs. I found this particularly interesting as I loved being able to give the treads more detail and they felt more like they were part of a production. I was also able to create ply cladding when creating the flats. This is because we applied the ply wood in order to cover and protect them using the staple gun to keep them in place. I liked this cladding at it gave a clean finish.





Protective Coatings

When cladding scenery, protective coatings are used. Protective coatings are important because they protect the surface which is underneath to stop it from being damaged. Some protective coatings include:

- Plastisol
- Polyester with acrilic beads
- Polyvinylidene fluoride (PVDF)

Image taken from Google Images



Harry Potter Set

Some other sets which I found very interesting is the Harry Potter sets. This is because I admire the way that the world of Hogwarts and the world surrounding it has been brought to life. The production designer for the films was Stuart Craig and he would create sketches of the designs before showing them to the director for confirmation or changes that would need to be made. The art department would then form plans for its construction. There would be white card models constructed of the sets to get an overview of what the set could look like and if the designs required would work. They were also made as a way to view the final designs. The art department would look at them to determine size, scale, and camera angles.

The great Hall



One of the sets which I really love is the Great Hall. This is because the set was built for the films rather then using backdrops.Overall, I am very found of this set. This is because I admire the way that the set has been constructed to fit the descriptions that have been described in the books. There was not a lot of information available on line about what materials were used to construct the set, however, it was still very interesting to read and learn about how the design process was considered in order to create the set. I also found it very interesting to learn about how this specific set was constructed to be the heart of the films and the design process that was considered for it final construction.

Images taken from Google Images and the Warner Bros. Tour Website

The Hogwarts Castle



Another set from the Harry Potter films which I am very fond of is the Hogwarts Castle. This is because it the the most recognisable set of the entire franchise. The set was again first sketched out and doodled before begin shown to the director for confirmation. The technical drawings were then created and then followed to construct the white card model. However, this set was constructed as a full model for filming. The model is of the entire castle and all of the details of it exterior and was inspired by the Highlands of ScotlandThe model was then filmed and added into the scenery in post production. To help make the model more realistic, miniature models of the court yards at Alnwick Castle and Durham Cathedral where created. This is because these were the actual locations where the film was shot and it helped connect them together. Within this model, there were more than 2500 fibre lights were installed to represent the lights from inside of the castle. There was also really gravel to represents the rocks within the model, and also real plants were added. The model was at such a big scale, that over 86 artists and crew members worked on its and its completion. Overall, I find this set to be very interesting. This is because I love how so much was out into the design process to ensure that it would complement the film efficiently. I also really love how many different materials were used to construct the fine details of the model to ensure its effectiveness.



Images taken from Google Images and the Warner Bros. Tour Website

Third Year Shows

Recently, I was given the opportunity to watch the third year student's final shows. These included Little Revolutions and Pomona. Looking at the set of each of these productions, I found them both to be very unique and interesting.

Little Revolutions

The first show that I watched was Little Revolutions. This show was about the riots and protests about Police brutality. This set was specifically interesting as we as the audience were sat within the set rather then just in the audience. The performers moved around us which I found specifically interesting. I loved how the scaffolding was used as part of the construction. This is because the scaffolding was covered with posters from the production and the narrative and made them stand out. I also found the pieces hanging from the ceiling very interesting. This is because they were looked as though they were meant to represent some sort of windows. They were also covered with newspaper articles about police brutality and about racial issues. I found this part of the set very interesting. This is because I love how they were also used as it brought a uniqueness to the set which I found very interesting. I also loved how the performers used them to create sound for the production. Overall, I really loved this set as it introduced me to different ways that a set can be constructed for a production.



Image taken from the official Instagram page:
https://instagram.com/littlereveloutionuwtsd?igshid=YmMyMTA2M2Y=

Pomona

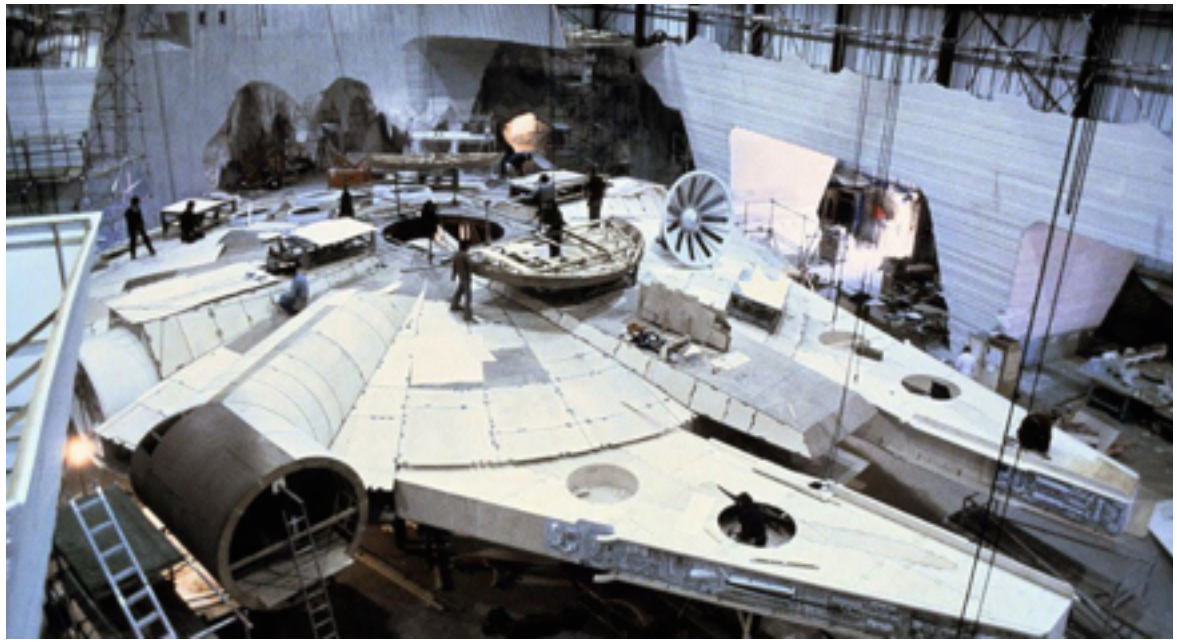
The second show was Pomona. This show was complete different to the previous which I watched. This is because it had a darker theme compared to Little Revolutions. The set was also completely different. The seating for this production was in rows compared to the sections like the previous show. However, the performers were still able to move behind the audience. Another part of the set which I found interesting was the backdrop. This is because I liked how it was constructed with the projector in mind as there was a white centre for it. I also found it interesting that the backdrop was decorated with graffiti as in contrasted the themes of the narrative in an interesting way. The boxes where also an interesting part of the production as they were used to represent numerous different elements of the narrative which was very interesting to see. I also found it very interesting to view how they used the top of the stage as part of the production. This is because it was interesting to see how the platform allowed the different parts of the production to come together. It also helped build tension and atmosphere in the production which I found interesting to watch. Overall, I found this set to be interesting and unique to the production.



Star Wars- The Millennium Falcon

Another set which I found very interesting is the Millennium Falcon from the Stars Wars films. This particular set is very interesting and personal to me as I have grown up with these films and the Falcon was always something that I have found very interesting. For the original films, some or the large scales for the production were shot in studios on large english sound stages. This is also where the large scales sets were constructed. The original set was built in 1976 and there has been around four versions built for the exterior of the set over the years for the different films. Through the course of the original films, there were different versions of the falcon built as some parts of the exterior of the set were built were was others were not.This is because some of the films did not require the entire exterior of the flacon. For example, in 1976, only half of the set was constructed as it was only required for two scenes and it was built in England's Elstree studios. As the budget for the films was raised, the sets became for detailed and a full scale set was constructed for the second film, and it was then used again for the third film. By 1979, and entire 360° exterior version of the falcon was built at a shipyard in Wales. The scales of this version was 65 ft diameter, 80 ft long, and 23 tons. Also, the falcon set was a sole standing element and many of the sets were constructed around it. This element I found to be very interesting. However, the set could be moved as it was could be moved on compressed-air hoverpads. This set however was later





destroyed after the original films had wrapped filming. When Star Wars the force awakens was film in 2015, different sections of the falcon was built. This is because the original sets did not exist anymore and the old plans of them were used as a guiding point. This particularly stood out to me as the film was shot decades after the original, and the fact that the original designs were used was very interesting to me. However, there was CGI used for the falcon to create the full falcon as only parts were constructed. This made me realise the difference of film production over the year. Overall, I have found the way that this set was constructed. This is because I did not realise that so many versions of it was constructed throughout the course of the original movies. It has also made me realise the process of constructing a set and how only sections of sets would be constructed depending on what is needed for each film and the shooting. I also found it particularly interesting to see the difference in the set between the new and original films. This is because it is very interesting to see how originally the entire set was constructed, but in the newer films and more recent technology only sections are constructed and CGI is used. I personally prefer the original way that the set was constructed. This is because I loved being able to read and learn about its construction process and the many versions created before the final one.





(sites.google.com, n.d.)

Eurovision 2022

An interesting set and stage design which I have seen recently is the Eurovision 2022 set. The Eurovision contest this year took place in Italy. The stage designer for the Eurovision stage was Francesca Montinar. The Green Room's design can be described as a verdant garden. For this design there were house plants and Italian gardens were used to build a connection with nature. This was the key source of the design. The concept of this design was "The Sun Within" which meant the set was going to rely on the movements of light and kinetic sun. I found this concept very interesting as I have not personally seen this type of approach to a stage design before. According to Montinar the stage and set will be able "to showcase theatrical motion, which is framed by water and will have a lush Italian garden lapping up the rays in front of it". The green room was placed in front of the stage with waterfalls separating the Green Room from the main stage. The stage was also carefully constructed. This is because the set would have needed to be quickly changed between the different acts and the stage would have needed to allow this to happen quickly. Overall, I am very found of this set. This is because I love how the stage and the Green Room have been designed with the same theme and create such an interesting and unique effect. I also really love how the Green Room had been designed to help separate the contestants in an interesting and unique way.

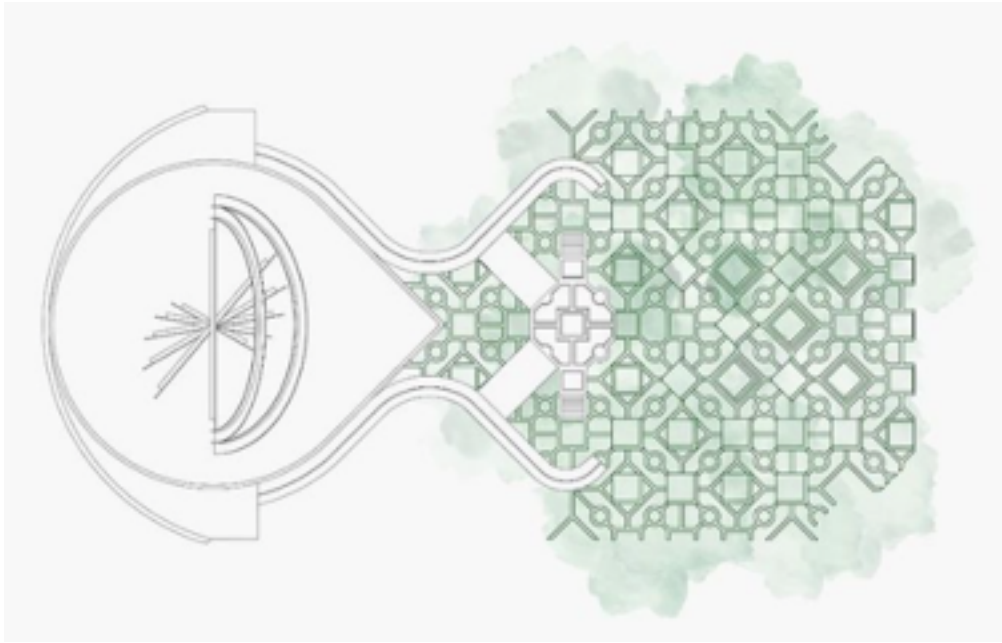


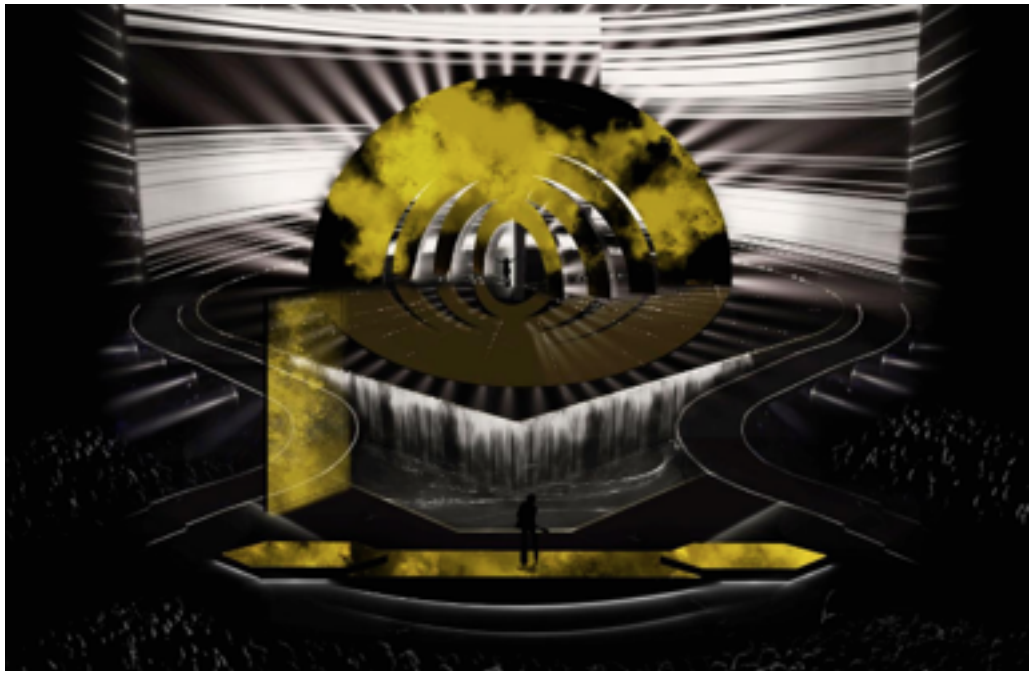


Image source: Francesca Montinaro | Source: Eurovision.tv

Another part if this set which I found very interesting was the way that the set had been constructed with the lighting and projection in mind. This is because the two complemented each other in such a unique way which I really love and was able to signify the contrast the difference between each of the performances. I also love how the waterfalls could still be clearly seen in all of the performances. Due to this the theme was still clearly identified. I loved this set and it was introduced me to new ways that a set and stage can be constructed.

Images Taken From Google Images







Reflection

Overall, I have thoroughly enjoyed this module and I am happy with the process that I have made throughout it. I have been able to develop my skills and knowledge of the tools within the workshop. I know how to put the tools together and how to do this safety. I am also aware of how to handle the tools to ensure that they are use properly and for mown safety. Another element within this module which I have been able to develop my knowledge on is e types of materials that can be used to create set constructions. For example, I am now aware that ply wood is common used within the industry as it is a cheap material to get a hold of. It was interesting to understand how wood and other materials come in different sizes which it can be brought in as I was not aware of this before hand. The study tasks also allowed me to broaden my knowledge of elements that play a part within scenic construction. For example, I did not know a lot about metal welding before completing the task and it was interesting to learn about it. Another study task that helped broaden my knowledge was looking at ways a three dimensional tree could be constructed for a stage production. This gave me a chance to see what would need to be done in order for it to be constructed properly and its needs are met.

However, there were elements of this module which were not so successful. For example, it took me a while to feel comfortable using the jigsaw tool. Even though I was able to develop my skills by the time this module was completed, I still feel a little on edge when using the tool. This is something that I will continue to develop in future. Another area where I feel I need to develop further is using CAD. This is because I only have basic skills of this programme and some areas I still struggle to understand. This is something that I hope to improve in future as these skills will be essential during the industry.

Even though there were some issues during this module, there were elements which I really enjoyed . For example, I enjoyed being able to research about how some of my favourite sets are constructed for my favourite shows and productions and learning the process that was carried out to lead to that final outcome. I also really enjoyed being able to construct a set for a production. Building the bar set was very interesting and enjoyable because I was able to use the skills which I have developed over the course of the module and use them to benefit an actual production.

Taking forward from this module, I will continue to practise and use the tools to ensure that my confidence in using them will continue to grow. This is because they are essential and having the skills is crucial. I will also continue to use programmes such as CAD as using this programme will be beneficial in the future and will be needed both set design and scenic construction. Overall, I am very happy with the process that I have made throughout this module and will most defiantly use the skills that I have developed here in the future.

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