



## Model Making, Sculpting and Welding for the Film and Television Industries



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## Units

- <u>Create and produce models and miniatures to scale</u>
- Look at using and understanding scale
- Look at examples of model boxes
- Look at materials and techniques used
- What research is needed creating a research portfolio
- Story boards and initial sketches
- Tool kit needed
- Practical exercise in making a model









# Basic Engineering Techniques

- Look at how, when and why these are used in production of TV and Film
- Look at materials and tools needed









# Role of key departments in TV and Film

 Look at the stages of the production process and who is involved at what stage









# Prop making and sculpting skills

- Look at : working with fibreglass, latex, clay, modroc, polystyrene, gold leaf, upholstery techniques
- Making casts









### Site visits









# **Health and Safety**

- Welding safety requirements
- PPE
- Data sheets
- Risk assessments
- Safe working practices









# Assignment

• You will look a scene from Narnia and pinpoint the specific scenery, props and set needed for this scene.









- Individually, you will produce research on the landscape/architecture, furniture and props used for the scene
- Include initial sketches, storyboard material
- Demonstrate an understanding of the scene and what the purpose of the scene is – what atmosphere needs to be created, what action needs to happen in the scene
- Identify and demonstrate different techniques and materials within your model box
- List the details in your model in separate set/props pieces and how you envisage them being built, including tool needed and techniques and materials used.
- Presentation ideas









### Evidence

- Research Portfolio
- Design notes and sketches
- 3D model box completed
- Breakdown of techniques, materials, tools and processes for some of the specific pieces of set and props
- Research roles and responsibilities









# **Group introduction**

- Why are you on this course?
- What , if any, previous experience do you have?
- What do you hope to gain from this?









# **Production Designers**

"Film design is so incredibly influential, yet at its very best, we don't even see it. Production Designers create worlds for us to believe in and when it all works, we accept the finished product as "real". What you see on screen is a blend of reality, film reality, and some good old fashioned smoke and mirrors, physically pulled together by production designers and their talented teams." Fionnuala Halligan









### **Examples of model boxes**

















### Wind In The Willows











### Wind In The Willows











### Harry Potter





imagine everything







### Harry Potter







# Working to scale

- Model boxes and pieces are representations of real objects but made to scale.
- This means that items within the design are a fraction of their real size. The relationship between their size with the size in real life is termed a ratio.
- Common scale ratios are 1:25, 1:50 and 1:100. This can be measured easily using a scale ruler.











- Alongside the model boxes and pieces will be a drawn up ground plan and elevations (front, side,back), also to scale. WORKING DRAWINGS
- Usually drawn at the same scale as the model
- These plans as well as the models are used by the workshops and props masters to build the final product.
- For this reason the finish (texture and colour) of each piece is important as this is the reference point for making.









# Tool kit

- Scale ruler
- Cutting knife/scalpel
- Cutting board
- Metal ruler
- Pencils
- Compass
- Pins
- Masking tape
- Wire cutters/pliers









### Materials

- Mount board
- Card various
- Balsa wood
- Wire
- Polystyrene
- Clay
- Glues PVA/spay adhesives/glue gun
- Paints
- Foam
- Fabrics
- Modroc









## **Basic techniques**

- Use a sharp knife
- Cut against the ruler/straight edge
- Always use a cutting mat
- Don't freestlye..... Mark it first!
- Hold the blade at right angles to the card (unles you want an angled edge)
- Don't try and cut through the edge first time you can do 2 3 strokes









### Corners







# Joining corners

- You can use
- Glue
- Masking tape
- Dress makers pins









Some larger structures will need supports











### Curves

- The card or mountboard will not bend naturally.
- You will need to make a series of parallel cuts shallow try and keep them evenly spaced.









### Doors

• A hinge can be created with a piece of paper or very thin fabric glued to the edge









# 3D printing











# **3D printing**

- An expensive process
- Size limitations
- Can be fragile if thin structures
- Can print in full colour
- Less time consuming especially if you need more than one









# Figures and freestanding objects

- Its always useful to make a figure
- Gives an instant sense of scale
- Can help to scan and resize, and use the costume designs for the figures
- Put a strut/brace at the back of the figure for support at slightly less than a right angle.
- Use a small coin at the bottom to weight it









### Figure example







### Trees – using wire and paper mache technique









# Sleeping Beauty – paper mache castle











## **Sleeping Beauty**











### Narnia

- Research the film
- Start to think about the settings
- Choose a couple of settings
- Indoor or outdoor?
- What is the purpose of the scene?
- Who is involved? characters
- What are the most important elements of the set?
- What is the atmosphere? How will the set reflect this?
- Start to do some initial sketches

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