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A Little Bit About Me

Hi, I'm Luke Raynsford, a 3D designer with three years of experience studying at the University of Winchester. I specialise in creating 3D environments that are both functional and visually appealing, and I have experience creating 3D environments for virtual reality too. My passion for 3D design began with my combined love of digital media, design, technology, and video games. Since then, I've worked with a variety of clients to bring their ideas to life through my designs.

I am proficient in 3D modelling software like Blender and live render engines like Unreal. I also have experience using 3DS Max, Unity and Adobe software, to name a few.

In addition to my technical skills, I'm also a strong communicator and collaborator. I believe that successful design projects require clear communication and a strong partnership between the designer and the client.

I take pride in my attention to detail, and I'm committed to delivering visually stunning and functionally sound designs. Whether designing product models, interior environments, or large-scale scenes, I always strive to create the best possible designs.

I'm excited about the opportunity to work with clients and continue developing my skills as a 3D designer. Please take a moment to browse through my portfolio, and if you have any questions or would like to discuss a project, feel free to get in touch. I'm eager to learn and grow as a designer, and I look forward to creating engaging and interactive designs that exceed your expectations.

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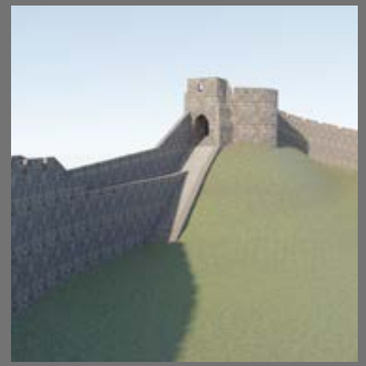
Carisbrooke Castle

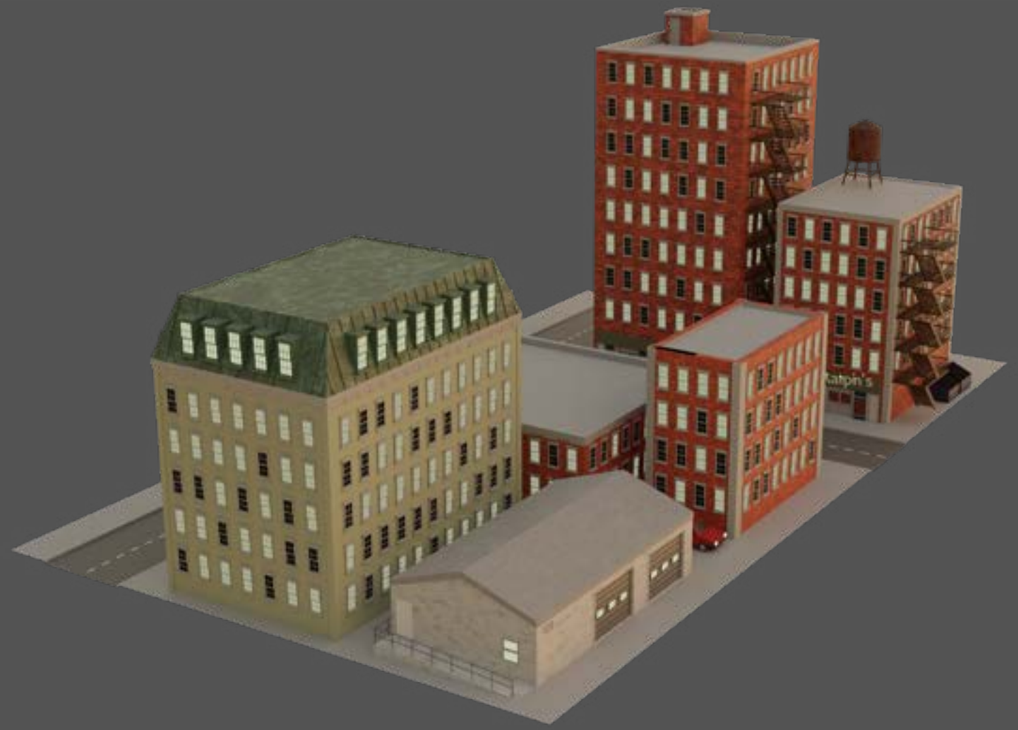
For this project, I worked with The Earth Museum, a not-for-profit organisation with “a vision to connect collections, people and place to foster generations of global citizen storytellers”. They are developing a virtual learning resource which aims to enable anyone to explore stories inspired by material cultural heritage anywhere in the world. The project involved replicating Carisbrooke Castle. Carisbrooke Castle is a Mott and Bailey, meaning it consists of a grand entrance, an outer wall, and a keep on top of a hill.

I started with a top-down image of Carisbrooke Castle. I then used google maps street view to capture what I thought were key perspectives of the castle. I then used these images to annotate the satellite image, using arrows to display the direction that the image displays. Not only does this make a great resource to refer back to while I was developing the environment, but it also was very helpful in allowing me to gain some familiarity with the environment straight from the start.



I began using the Blender GIS add-on to generate the terrain the castle will sit on using satellite data. I used my reference images and drone footage to understand the shape of the terrain and edited the geometry to add the details. I created the castle on the landscape using basic shapes like cubes and cylinders for the purpose of mapping out the layout of the architecture in a digital 3D environment. I then added details to the castle like battlements, windows, stairs and extrusions in the brick work. I tried to keep these as accurate to the real Castle as possible, only making exceptions when visualising parts of the castle that had been destroyed or obscured.

Around the start of development, I also started modelling an artefact from the Anglo-Saxon period. As mentioned before, I searched the Earth Museum's own website as well as the British Museum's website. Eventually, I came across what I assumed was a brooch from the Anglo-Saxon period but after consulting my client, she informed me it was actually an Anglo-Saxon coin that was found on the Isle of Wight, close to the location of Carisbrooke Castle and converted into a brooch in the medieval period.



City Block

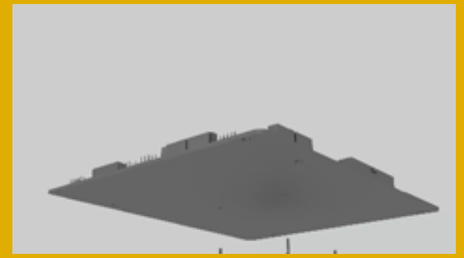
Here I have an example of one of the first 3D environments I developed. The brief was to create a scene depicting a city. Looking back at this project I am proud I was able to complete an environment of this quality when I had only just started learning the skills.

It was in this project that I first settled into Blender and I think it shows through the use of modifiers and unique textures like the one I created that would randomly illuminate certain windows to give the impression that each room in the city is occupied.

I would describe this as my first piece of work that I produced that felt, to me, like a complete scene and it greatly helped me develop the skills I would use going forward into other projects.

PC Build Learning Recourse

During the begining of my study, I developed a prototype for a learning tool with the purpose of teaching school children about computer hardware. The idea was a website where teachers could access 3D printable models of computer components that would fit together like a puzzle. The goal was to be able to teach children how to build computers without needing to spend large amounts of money on real components and to eliminate the risk of damaging real hardware.



Crime Scene

In this project, my group and I were assigned to create a virtual reality crime scene program. The program is intended to be utilised by the forensics department to aid in identifying evidence types. The primary audience for this program was third-year forensics students, but it could also be employed in open days and outreach programs.

I played a crucial role in the project as I was responsible for designing and creating the objects in the scene. This encompassed both furniture and smaller objects such as an ashtray, a TV remote, and even a murder weapon. This task requires a keen eye for detail and a creative approach to design.

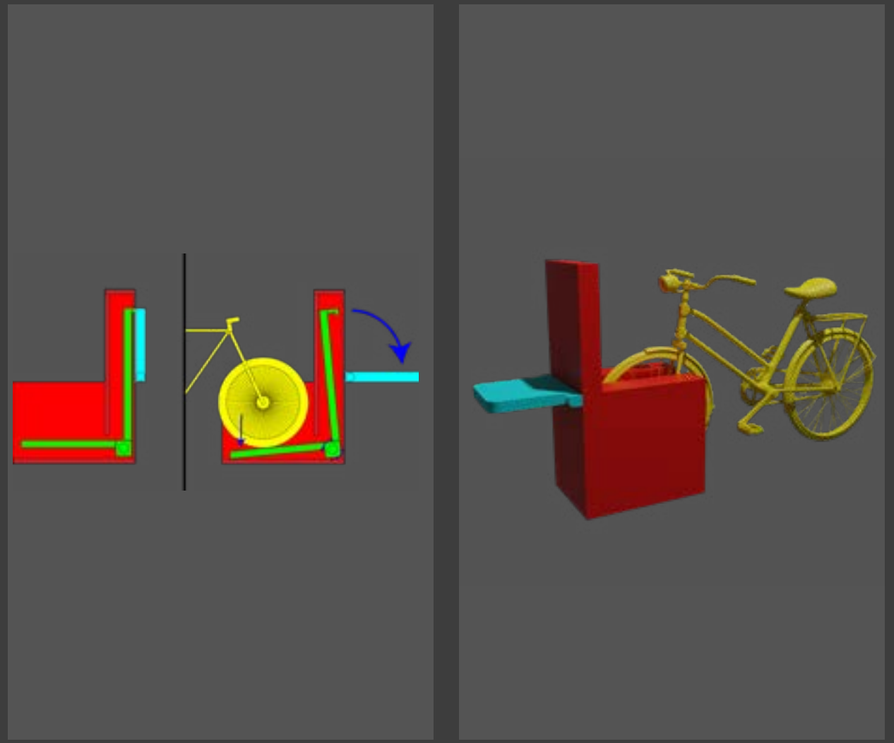
Creating virtual objects requires proficiency in 3D modelling software, like Blender, which is what I chose to use for this project. I needed to use my skills in this software to create detailed and accurate models of each object, accounting for factors like texture, lighting, and movement.

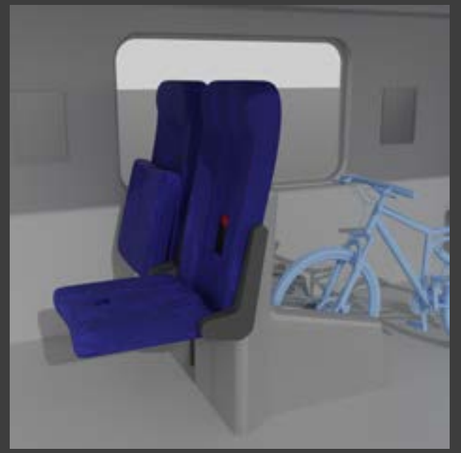
Overall, creating virtual objects for a crime scene program requires a combination of technical skills, creativity and attention to detail.

I created a set of original oak furniture for the scene, starting with a coffee table. I took some inspiration from images of modern oak furniture I found online. I personally liked furniture that looked weighty and solid with curved edges. When researching for the bookcase, I found a zig-zag style I liked and wanted to incorporate. The curves on the bookcase closely match those found on the coffee table, so they fit together nicely in the room. My aim was for the design of the furniture to be unique from each other but to have enough similarities to be a matching set.

Train Bike Storage Solution

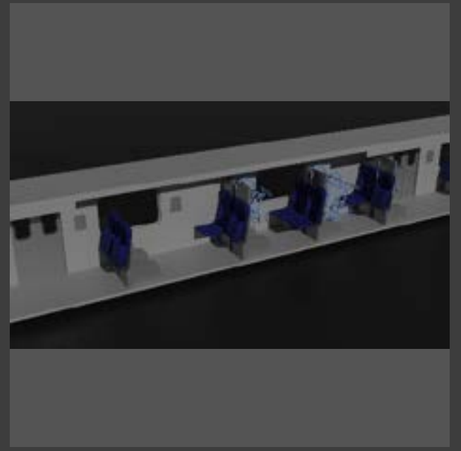
Brief 8 of the Student Design Awards design briefs asked, “How might we make multi-modal travel accessible and inclusive to improve the experience for all?”. I have thought many times about the poor facilities that trains provide. I am also passionate about the environment and love thinking about ways that we, as a species, can reduce our impact on the planet. One way I feel that we can get closer to that goal is by travelling by bike, and I believe one occasion where it would not be necessary to take a car is to the train station. I began with the idea of train seating that is only accessible by bike riders to encourage sustainable multi-modal travel.





The style of the seats is designed to fit in amongst other furniture found on trains. Southwestern railway train interiors particularly inspired me. I found that many modern UK trains use dark blue for fabric and dark grey and light grey colour scheme. I wanted to keep the shape of the body of the seat abstract with few parallel lines as this would allow me to keep parts as small and unintrusive as possible whilst still looking modern.

The passenger inserts a bike wheel into a slot at the rear of the seat, the bike weighs down a pressure plate, and the seat is unlocked and able to be folded down to sit on. I initially developed three designs, of which I would end up using two, one allows the passenger to store their bike upright, creating more space, and the other allows the passenger to store their bike with both wheels on the floor, making it more accessible.



Witch House Scene

17th-century writer John Aubrey wrote about the witches in Malmesbury. Sometime in the 1670s, a major witch trial took place in Malmesbury. Reports of “odd things” like using powers to fly about on sticks. The punishment for some women was to be hanged. Aubrey claims that seven or eight women were accused but other sources confirm it was four, the leader of them being Elizabeth Peacock. They were accused of bewitching horses and murdering children using witchcraft amongst other things…

For this project, I developed a 3D environment for Explore Malmesbury. Explore Malmesbury is a community project led by the Malmesbury town team, created to tell stories about the history of Malmesbury in the places they happened. This project aimed to create an atmospheric 3D interpretation of the outside and inside of the home of one of the witches accused in Malmesbury in the 17th century.

I began the project by researching 17th-century houses to gain insights into the style, architecture, and design of houses from that time period. I also wanted this scene to be atmospheric and spooky, so I took some inspiration from horror movies in small cabins like The Evil Dead. By drawing inspiration from horror, I infused a sense of unease into the virtual environment, which effectively created a more immersive and engaging experience for the user. By combining research with my creative vision, I believe that I was able to create a compelling and accurate representation of a 17th-century house, infused with a touch of spookiness to engage and captivate the user.

For the inside of the house, I populated it with a bed, some chairs, a cupboard, a workbench, a fireplace and a table for the furniture. I had ideas for books, scrolls, potions, and skeletons to decorate the scene, but regardless, my client was looking for a realistic depiction of a woman accused of witchcraft's house, so the more fictional aspects and books (it was likely Elizabeth Peacock could not read) were unsuitable. As a result, I created some jars, bottles, vials, and candles for the surfaces and different types of herbs tied up to dry for the walls.

Overall, this project allowed me to showcase my skills in research, design, and creativity to deliver a compelling 3D environment for Explore Malmesbury. By accurately representing a 17th-century house with an eerie touch, I feel I was able to capture the essence of the time period and provide a captivating experience for the user. As always, it was a pleasure to work on a project that contributes to the preservation of history and helps people connect with their heritage.

Thank You For Viewing My Portfolio

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