

Project Postmortem

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Introduction

Our classes Project was to create a racing game with a selected theme would be a functioning block. The class initially presented individual ideas, before deciding upon a Cyberpunk theme for the games theme, taking inspiration from the incomplete *PowerDrive 2000*. The game would include 3 separate levels in an industrial, wasteland and city environment with the overarching cyberpunk theme spread across the different environments to keep them coherent towards the game, with different features in each level to make each level a unique experience to play for each player.

Research Evaluation

My general approach towards research wasn't as heavy as it could have been in the beginning. My initial research work was primarily more focused on research in to various pre-existing games, such as *Bioshock* and the *Star Wars* franchise, to seek inspiration and get design ideas for the production stages of my work, mainly to back my pushing for a theme of my own choice as a them, that being a Sci-fi themed level or general theme for the game.

However, when my theme was rejected in favour of a Cyberpunk theme, I altered the focus of my research toward Cyberpunk environments, such as the *Blade Runner* film, for inspiration and concept art creation, which played in to my work as Modeller. My research changed further, as I encountered problems during my Maya work, researching ways in which to solve the problems in YouTube videos or various forums.

Technical Research

I used some forums, such as CGSociety, and YouTube video guides to help me in my work, such as when I used a YouTube video guide to attempt to make a Tree Model, though this didn't go as well as I wanted it to, it was helpful in pointers for the creation of a tree model and how to go about including features of the tree such as the tree canopy and the smaller branches, without having to go overboard with the Polycount. I used CGSociety for pointers and problem on adjusting the window in Maya, which I'd been otherwise unable to find out with my own searches in Maya toolbars.

Contextual Research

With his advice in mind, I took to playing and watching various films and games which would inspire myself, as well as giving me a general idea for a list of themes that could be used in the game, playing such as *BioShock*, *Star Wars Knights of the Old Republic* and *Fallout 3*, whilst using images from *The last of Us* for concept in the level design, looking more to the environment of what the world would be and it's environment rather than for the mechanics of the game.

Game Research

For inspiration on concept art and theme decisions, I tended to look toward the *Bioshock* series, particularly *Bioshock 1* and *Bioshock 2*, which influenced my work in the design of the concept art for the building props and other prop elements for the race course in our level. When it came to the model work, particularly how I visualised the appearance of the level, I referred to *Bladerunner* for what I saw as the abandoned cityscape environment, overgrown and dishevelled.

Research Conclusion

My research, whilst not as comprehensive as it could have been, was ample for improving my understanding of the software I used in the making of the models, as well as my understanding of the applications. I do however, feel that the research I did do in to game design theory, was somewhat lacking and I could have used a greater number of sources in my work from academic sources such as Katie Salen and Eric Zimmerman's *Rules of Play*, to inform my suggestions for level design.

Technique Evaluation

During the production stage, I primarily used Maya, software which I have previously used and have a base understanding in how best to use the features it has to offer to complete the models that were needed for our level. Whilst I have a solid understanding of how to use Maya to the best effect, I did attempt to experiment during my work, using tools and exploring the various features available in Maya to see what I could use to complete my models at a faster pace, or to improve upon the quality of the models.

Identification & Suitability of Production Methods

I used Autodesk Maya for model work to fulfil my role as Modeller in my team. For the most part, I stuck with familiar production methods as much as I thought I might have to, keeping to a fairly set approach of making the model using Maya and making a complete model, before going over the model to check the quality.

The only change I made during production, was opting not to do UV unwrapping, which wasn't a strength of mine, due to the time taken on UV unwrapping by myself, which would slow the production of my models and cause bottlenecks in the production pipeline that could be avoided, as only a block out was required for the hand in rather than a fully textured model.

Development of Techniques & Skills

During my work, I mainly used methods I was familiar with, although I did occasionally experiment with different features to complete my work. My decision to use methods that I was familiar with didn't adversely affect my work, as all the work I had been assigned by the priority asset list or by other members of my team per request, were completed with ample time for any additional modifications, as well as later edits to completed models, such as rescaling the models.

Overall Quality of Work Produced

I'm very satisfied with the quality of my contributions, those being concept art and models, towards the project's completion. Of satisfaction to myself in the area of building props and track props, which I feel came out very well and to a high standard. In future I would address the time I took on each model, as I was far too generous with the time, I granted myself to work on each individual model and revisit each model, slowing down the rate at which I produced models.

Technique Conclusion

During the project, my general knowledge of Maya expanded significantly, with my skill at crafting more complicated models expanding further from my previous years work in Maya. My experience with the interface in Maya also grew, as I used more of the tools available in Maya, such as lighting and polygon primitives, using skydome regularly to present my work in cleaner images in my production diary, whilst experimenting with the additional primitives outside of cube and cylinder primitives, which helped in finding solutions to issues with Ngons in more complicated models.

Development Evaluation

My role in my team during the development of our project was primarily a modeller, though I also worked as a concept artist, using concept art either produced by myself or by concept artists. I planned out my time at the beginning of the semester, according to the list of Models I had chosen

to do and been assigned to do, adjusting it as the project developed and more models were given to myself to work on.

I primarily kept track of time using a Gantt Chart and a Production diary, though I didn't use a Flowchart, instead keeping track of the models I needed to model was via the Gantt Chart and a Priority list that was made in our team and used as a reference list for what needed to be done and what importance the model was to the level.

Creativity

The project began with me advocating more for a science fiction theme behind the racing game, however, this changed when the class opted for a cyberpunk theme for the general theme of the game itself.

I was involved in suggestions for separate themes per level, this becoming a single theme across three levels, as well as my contributing to the decision to include a priority asset which would affect the players experience of the level, with a tangible difference in gameplay to be noted by the player when a trigger was activated by the player.

Relevance to the brief

Our project closely followed the brief, with the team setting out to make a racing game according to the brief, producing the start of a finished product in a block out, with working mechanics and playable levels forming a cohesive game with accomplishable objectives. We didn't deviate from the brief as much as I expected to, though we did drop features such as opponent AI and a shooting mechanic, with intent to add such a feature in later in the project's development, due to concerns of how long it would take to make the AI functional on top of base mechanics.

Contribution within a group (group projects)

I regularly attended the class meetings as the project advanced, mainly on Thursdays as that was the best time to conduct the meetings and ensure the attendance of most of our project team. I also kept in contact with the four-person team that was working on our level, via a group chat. I had to alter my work or pass work over to other members in my team, such as the track pieces which were instead to be made by Joe rather than myself, so I could prioritise the key feature of our level; the collapsing building.

Working Alone (individual projects)

During much of the modelling work, I worked alone on with varying degrees of free reign on how the model would appear. Using my own concept art made by myself, with some team input, most of the models I produced were done independent of the team's input, though I did ensure designs were keeping with the planned appearance of the level, regularly communicating my own choices for design work to the rest of the team throughout.

Iterative Design Practice

During the project, issues with the scaling of our models arose, which was addressed by feedback received from the Unreal Engine team, which ended in the altering of the scale in Maya before being exported again for the block out of the level. I relied more upon feedback more than my own self critique during the actual design process, though I was self-critical of the time spent upon each

model, which I felt was either far too long or far too short depending on how complex or simple I perceived the model, but I often second-guessed myself when it came to the length of time spent.

Time Management

I feel that my time was managed reasonably, distributing it between the various essays and the practical work in Maya. The workload somewhat matched what I had planned to do and in what order, as according to my personal Gantt chart and the priority list that was used by myself during the project's development.

Development Conclusion

The processes I used to manage my workload and keep track of my progress, as well as communicating within my level team and the group were effective throughout the project, with ample time to finish models, concept art and complete written work as the project progressed. I did overestimate how long I would take to do certain tasks, completing tasks ahead of schedule according to my Gantt Chart and keeping track of the time spent in my Production Diary and then reviewing completed models, dwelling on them for extended periods.

Deadlines were met with time enough to complete written assignments, along with models set on the priority list myself and other modellers used, but I feel that I could have done a greater amount of models had I planned more realistically with my times rather than giving far too generous periods of time to complete models, which I intend to address as the project develops next semester.

Analysis

Critique of the work you have produced

Throughout the project, I encountered minor issues that were easily resolved by myself, such as Maya software either not working or being unable to find concept art for models that I had to make. The largest problem that was encountered, during the block out work by the Unreal team, was the discovery that models I had made were incorrectly sized, translating in to unreal in a smaller scale than that I had modelled for and what had been planned.

Ultimately, this issue was resolved by getting suitable dimensions from the Unreal team, which allowed myself, Hayden and Peredur to resize and re-export the models for use in Unreal and in the block outs. In future, I'll be accounting for the grid scales in Maya, so that models translate to the correct size in Maya, whilst also going through playtesting with the Unreal team.

Critique of your own practice (and action taken)

Throughout my work, I developed and expanded my own knowledge of game development theory and regularly improved my practical skills when working in Maya or documenting the various processes and stages of my work. My documentation itself being far more in depth than the previous year with greater details of the processes in my production diary as well as my use of a Gantt Chart to plan for the use of my time throughout the project in a more effective manner, the Gantt chart being something that I hadn't used previously, but used during the project to plan my time, adjusted constantly to account for changes in my work.

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