Level Design Assignment01

By

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Journey To The West

I predominantly favour bottom up design but as this assignment requires it I shall employ a top down approach. I have chosen the 16th century Chinese Folk Tale, "Journey To The West", as my inspiration for this prototype level. Although I've been a fan of the tale for a long time I have done some extra research into the story to get a better sense of the nuances that I may not be aware of and perhaps incorporate them.

http://learner.org/courses/worldlit/journey-to-the-west/watch/

The link above provides a pretty in depth video presentation and fully explains the story and characters. It includes clips of modern stage shows that are quite interesting and offer some inclination as to the route to take on the colours and feel I should aim for in this level.

http://en.wikipedia.org/wiki/Journey_to_the_West

Wikipedia has some excellent info and some amazing images from the original copy. This style of writing would be good to implement into the design and textures. I particularly like the flying on the cloud image with the staff as well.

http://www.amazon.com/Journey-Chinese-Classics-Classic-Volumes/dp/7119016636

There are many copies of this 400 year old story about and this version on Amazon offers a nice little synopsis.

http://eap.einaudi.cornell.edu/node/9610
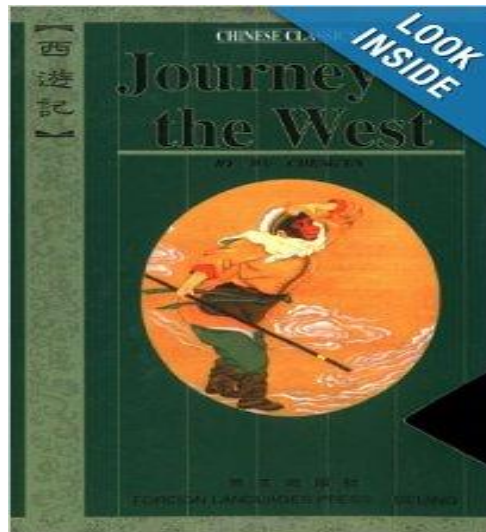
This article from Cornell University is super extensive and covers the entire story and Shows that the Beijing Opera performs.

http://www.innerjourneytothewest.com/english/en-resource.html

This site is by far the most extensive. Full colour interpretations and English translations of the story in bite size chunks. Definitely what I need to aid me in getting to grips with the feel and direction to take the design.

The Level Idea

Red and Blue highlights = Things of note to consider adding

"The **Monkey King was born of rock and was extremely strong**. He was also extremely smart, very mischievous, and very proud.   He had tricked, insulted, and angered many gods and made himself many enemies. He had even **made himself immortal by stealing and eating the magic peaches of the Jade Emperor**. He could **fly on clouds** at the speed of light, **change shape**, and **fight off entire armies**. He was so proud that he demanded that the gods call him "Great Sage, Equal of Heaven". The gods were furious, but could not defeat the Monkey King.

Buddha decides to teach **Monkey King** a lesson. Buddha made a wager with Monkey, betting him that he could not **jump** out of Buddha's hand. If Monkey King won the bet, he would get the Jade Emperor's job. If he lost, he would be **banished to Earth for centuries** to learn some humility.

Monkey agreed to the bet. He immediately **cloud-flew at a terrific speed** to the end of the universe, where he saw five **pink pillars**. These he took to be the end of the world. On the middle pillar he wrote "**The Great Sage Equal of Heaven** reached this place", to prove beyond any doubt he had reached this spot. To drive home the point, he also urinated at the base of the first pillar. Monkey tried to renege on the bet, but before he could escape, Buddha pushed him out of the Gate of Heaven. Buddha then changed his five fingers into the **five elements –metal, wood, water, fire and earth**. These became **a five-peaked mountain, and under it Monkey was trapped**, leaving **only his head and hands exposed**. Monkey King was obliged to remain trapped under the mountain for 500 years to learn humility."

Powers and abilities

Monkey king is a **powerful Immortal, capable of wreaking havoc** in heaven, and **fighting off its most powerful generals** without breaking a sweat. His very presence can cause terror in even dragons should he wish it, **he can grow to the size of a mountain or shrink to the size of a tuft of hair**, and can **shape change to become anything from a fish to a full temple complex**. He can tell by scent if a being is mystical by nature or not, and **see clearly three hundred miles away**.   After his time in the Eight Trigrams Furnace, he is **virtually immune to any form of heat or flame**, and his time studying to be an Immortal has rendered his flesh nearly impervious to even heavenly or demonic weapons.
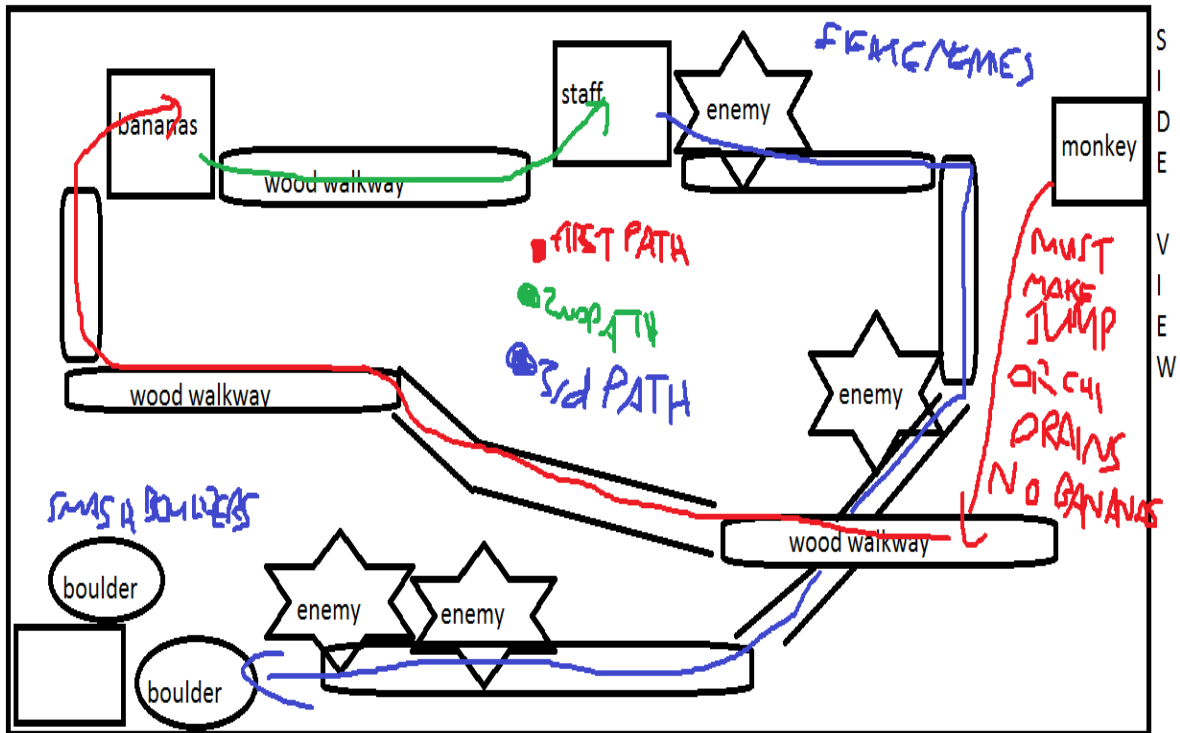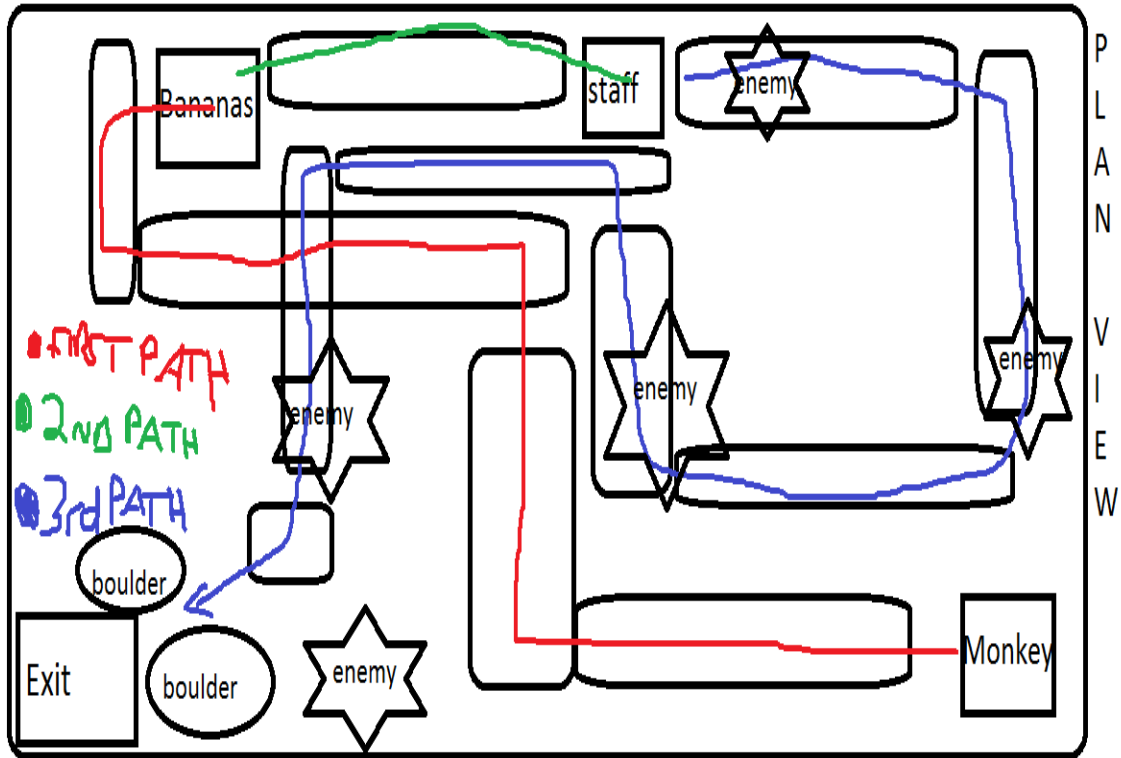
His strength is unheard of, and agility and skills almost completely unmatched. He can cover 36,000 miles in a single somersault, or somersault to Heaven and back again. He can **survive up to five hundred years or longer without food or drink** besides (the thoroughly unpleasant and definitely not nutritious) iron pellets and molten copper (against his will). **He is sneaky** and can manage to get out of nearly any circumstance, and is virtually **unmatched in battle with his main weapon, the "As-You-Will Gold-Banded Cudgel**".(Monkey's Staff)
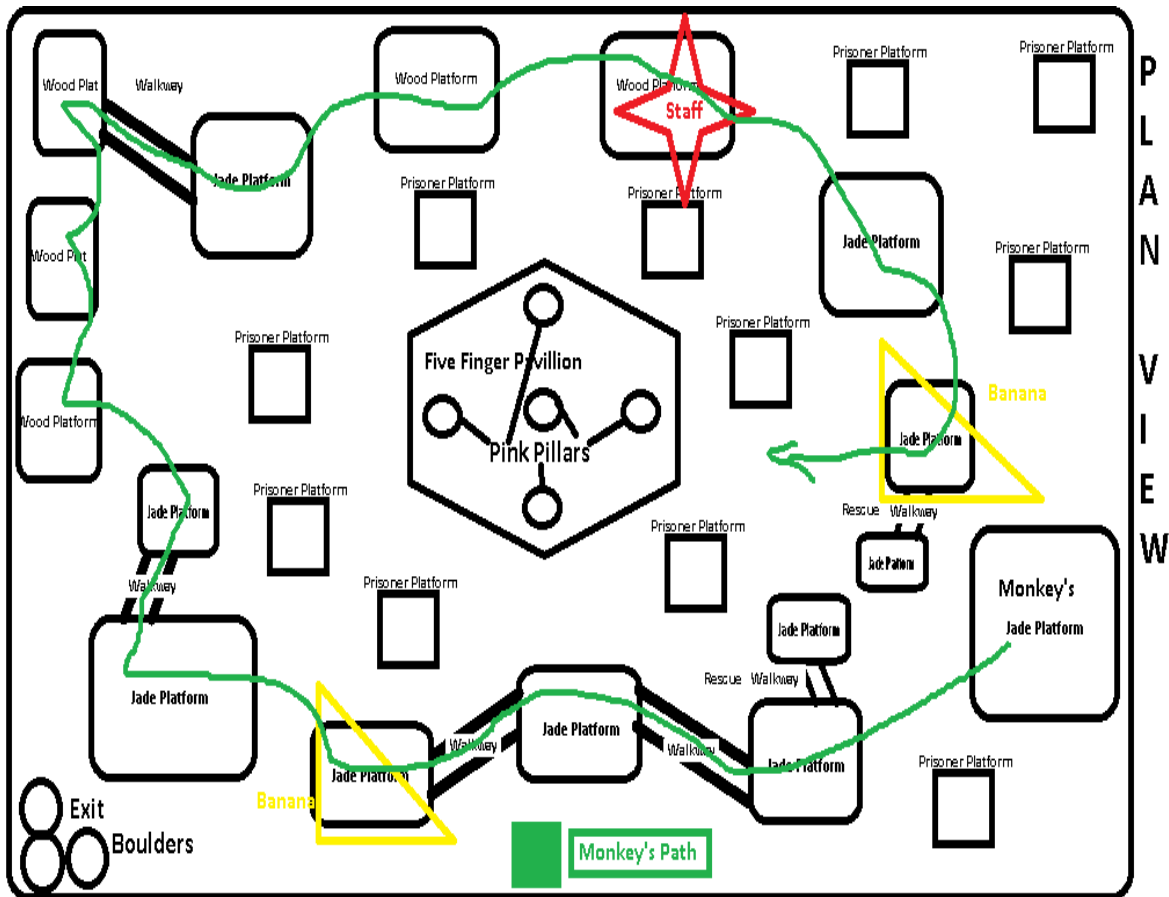
My Adaptation

After conducting my research I have a clear idea of the level I plan to make. I intend on fleshing out the finer details in text first. Then I will draw plan views of the cave Monkey must escape and a side view of it. Then I will create a crude mock up scene using some figurines and whatever I can use. Then I plan to photograph it and then label everything in the photographs with text like a storyboard. I will create a flow chart to illustrate the gameplay and finally an attempt at some concept art via Photoshop. I will take the story up from 400 years after Monkey broke into heaven and urinated on the Buddha's hand. Monkey is imprisoned under "Five Element Mountain" and about to escape. Now this is an adaptation so I shall embellish my imagination a little. The level will have Metal, Wood, Fire, Earth and perhaps Water outside. He's spent the last 400 hundred years thinking about getting back into heaven to give Buddha hell. He has been building his chi levels in order to escape his Jade tomb early.

As the level begins Monkey espies a cave under "Five Element Mountain", he is encased in Jade. He has spent the last 400 years building his Chi and is just about to shatter the Jade cell that has held him for too long, 100 years ahead of his scheduled term, tortured by staring at his beloved magic staff and a bunch of heavenly bananas the Jade shatters. An on screen message says, "Get ready Monkey. Once free collect all of the bananas and the magic staff the bananas to replenish your Chi and escape". The level will have two sections. The first section is simple platforming. After Monkey breaks free the player must navigate the platforms in the cave and jump from ledge to ledge onto the wooden walkways to get to the bananas and staff. If a player falls to the cave floor then he/she can use the rescue platforms and ramps to get back up and continue. Once the first Bananas are reached the Chi is set to 10. Monkey must go higher up the cave to retrieve his staff. As soon as Monkey gets his staff some of the other prisoners are freed and Monkey must fight them all as they want his magic staff. Depending on his chi Monkey's staff can expand or shrink to any size. After the fight he must head for the daylight shining through a gap and smash the giant boulders blocking the entrance to get to freedom. Then Monkey is faced with a decision. An onscreen message pops up. Will Monkey free the other prisoners and hope they are friendly or leave them there to rot? If player chooses yes then Chi is doubled, if player chooses no then the next level loads. Monkey calls his magic cloud and goes in search of Pigsy and Sandy.

The Plans

PLAN VIEW

Bananas · staff · enemy · enemy · enemy · enemy · enemy

FIRST PATH
2ND PATH
3rd PATH

boulder · Exit · boulder · enemy · Monkey

SIDE VIEW

bananas · staff · enemy · FENCE/NAMES · monkey

Wood walkway

FIRST PATH
2nd PATH
3rd PATH

wood walkway · enemy

MUST MAKE JUMP OR CLI DRAINS NO BANANAS

wood walkway

SMASH BOULDERS

boulder · enemy · enemy · boulder

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Wood Plat   Walkway   Wood Platform   Wood Platform   Prisoner Platform   Prisoner Platform

Staff

Jade Platform

Wood Plat

Prisoner Platform   Prisoner Platform

Jade Platform

Wood Platform

Prisoner Platform

Five Finger Pavillion

Prisoner Platform   **Banana**

Pink Pillars

Jade Platform

Jade Platform

Rescue   Walkway

Prisoner Platform

Walkway

Jade Platform

Jade Platform

Jade Platform

Prisoner Platform   **Monkey's**   Jade Platform

Jade Platform

Rescue   Walkway

Jade Platform

Walkway   **Jade Platform**   Walkway   Jade Platform

Banana   Jade Platform

Prisoner Platform

Exit

Boulders

Monkey's Path

Crude Modelled Storyboard
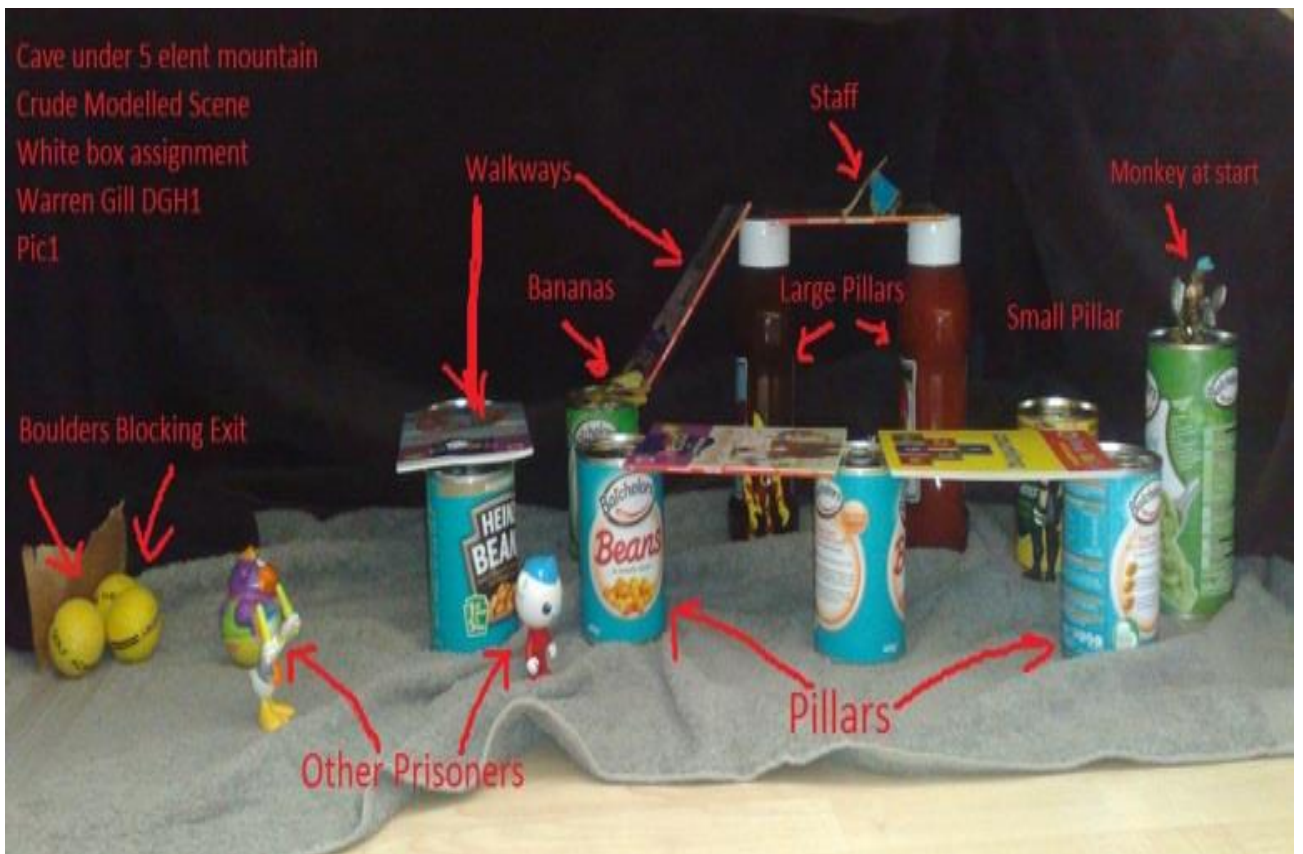
Cave under 5 elent mountain
Crude Modelled Scene
White box assignment
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Pic1

Staff

Walkways

Monkey at start

Bananas

Large Pillars

Small Pillar

Boulders Blocking Exit

Other Prisoners

Pillars

Cave under 5 elent mountain
Crude Modelled Scene
White box assignment
Warren Gill DGH1
Pic 2

Monkey must jump to platform or he can't get to bananas. Chi drains and level reloads if he lands on cave floor

counting
1 2 3
4 5 6

In the above storyboard image I had originally planned to let Monkey's Chi drain if the player failed to make the first jump but after completing the build in unity and allowing a few classmates to test the level, it didn't feel right. So I altered this and added rescue ramps, if you will, in case the player didn't notice the proper route and decided to immediately jump to the cave floor. These ramps lead back to the intended path at key junctures of said paths. I also decided to scrap he draining of the Chi idea as Monkey only grows stronger and stronger and not weaker.

Cave under 5 elent mountain
Crude Modelled Scene
White box assignment
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Pic3

Bananas and staff glow for extra visibilty

Walkways lit by flames on sticks

Monkey comes to another jump after 2 walkways

4 5 6

Cave under 5 elent mountain
Crude Modelled Scene
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Pic4

If player does not collect staff next they cannot destroy boulders. Chi drains and monkey dies, level reloads

Monkey makes 3rd jump and reaches bananas
Chi is replenished

Other Prisoners still frozen

Again in this image with the inclusion of the rescue ramps the "Monkey dies" part is negated as now the level simply does not proceed to the fight section until the staff is collected.

Cave under 5 elent mountain
Crude Modelled Scene
White box assignment
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Pic5

Monkey reaches his magic staff and the Buddha releases some of the prisoners

Cave under 5 elent mountain
Crude Modelled Scene
White box assignment
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Pic6

Monkey makes jump to get more bananas to fight the freed prisoners

I forgot to put the bananas on the can. sry

Freed Prisoners

Again if Monkey fails to make final jump to the magic bananas the player can use the rescue ramp that is now in place.

Cave under 5 elent mountain
Crude Modelled Scene
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Pic7

Unreleased Prisoner

Monkey fights the freed Prisoners

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Cave under 5 elent mountain
Crude Modelled Scene
White box assignment
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Pic8

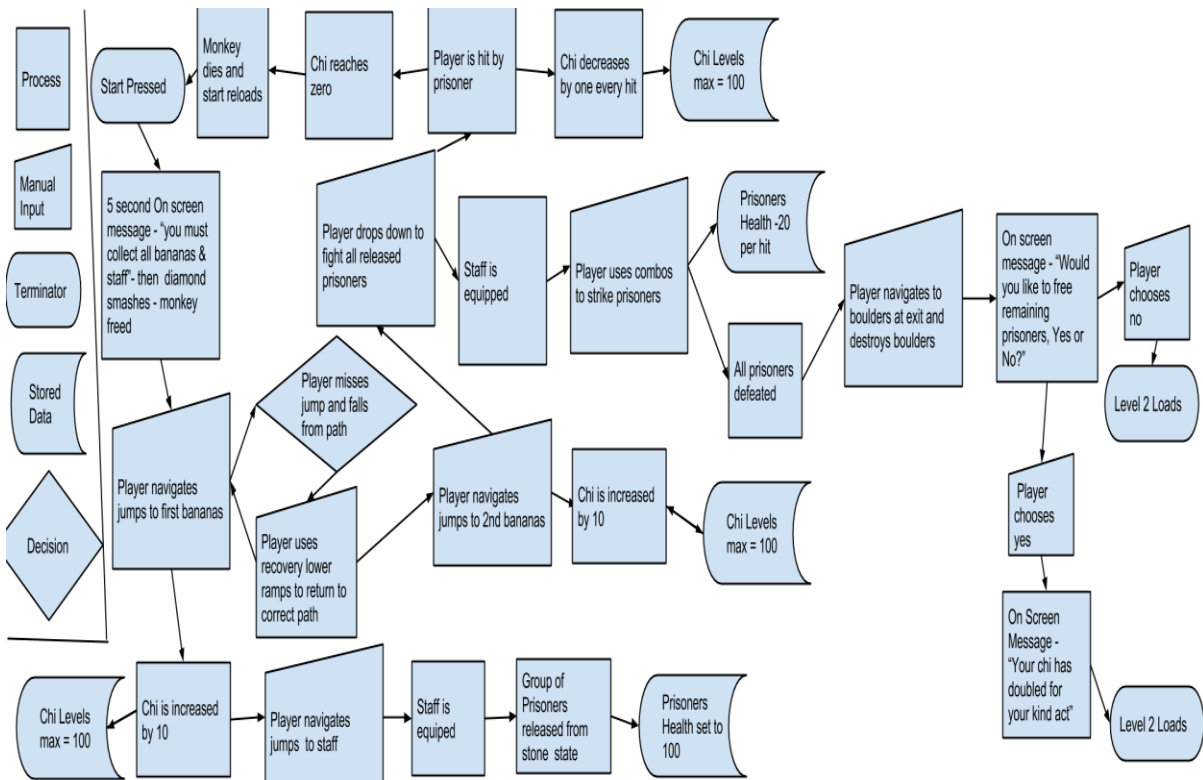Monkey moves passed unreleased prisoners to get to the exit

Cave under 5 elent mountain
Crude Modelled Scene
White box assignment
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Pic9

Monkey smashes boulders with magic staff

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2. Onscreen message would you like to free the prisoners?

3. If yes replenish Chi. If no go to step 4

1. The door and boulders are destroyed
Revealing sunlight

4. Monkey escapes and next level loads

Flowchart

Process

Start Pressed

Monkey dies and start reloads

Chi reaches zero

Player is hit by prisoner

Chi decreases by one every hit

Chi Levels max = 100

Manual Input

5 second On screen message - "you must collect all bananas & staff"- then diamond smashes - monkey freed

Player drops down to fight all released prisoners

Staff is equiped

Player uses combos to strike prisoners

Prisoners Health -20 per hit

Player navigates to boulders at exit and destroys boulders

On screen message - "Would you like to free remaining prisoners, Yes or No?"

Player chooses no

Level 2 Loads

Terminator

Stored Data

Player misses jump and falls from path

All prisoners defeated

Decision

Player navigates jumps to first bananas

Player navigates jumps to 2nd bananas

Chi is increased by 10

Chi Levels max = 100

Player chooses yes

Player uses recovery lower ramps to return to correct path

On Screen Message - "Your chi has doubled for your kind act"

Level 2 Loads

Chi Levels max = 100

Chi is increased by 10

Player navigates jumps to staff

Staff is equiped

Group of Prisoners released from stone state

Prisoners Health set to 100

Concept Art

To create this super simple concept art I used Photoshop as my drawing skills are stupendously inadequate even in the mystical world of matchstick men. I obtained some oriental cave and tomb images, an image of the new t.v. version of Monkey and an image of a classic Monkey costume. I isolated the sections I deemed viable and dragged them into a new image. I altered the lighting, saturation and colour balance in each layer of the newly created composite image until everything was blended nicely. Finally I flattened the layers.

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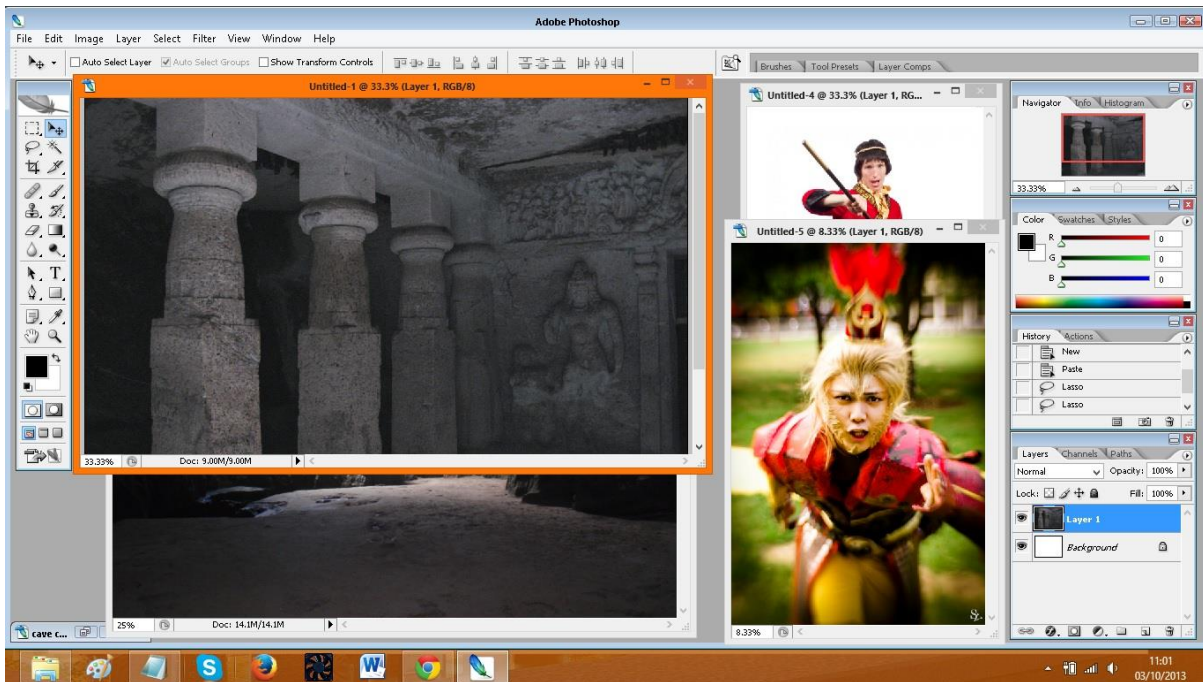
Although this is essentially a white box assignment I felt it pertinent to add a little colour to the cave, simply to distinguish between the player's path and the background elements of the level. I chose some tileable rock textures and placed them on any surface representative of a cave surface. i.e. the four walls, the ceiling and the floor. Using unity's shaders I created some bumped specular materials, altered the main colour settings, the bump settings, the specular settings and added them to the surfaces I wanted. I then created a white bumped specular material using a rock texture and added it to all of the elements I'd created in white box form that are placeholders for more elaborate 3D models, to be replaced at a later date.

As there is one part of the level where daylight shines into the cave entrance and the sky can be seen through the boulders I added a skybox to the scene. I used a skybox from a free skybox package I obtained on the unity asset store.
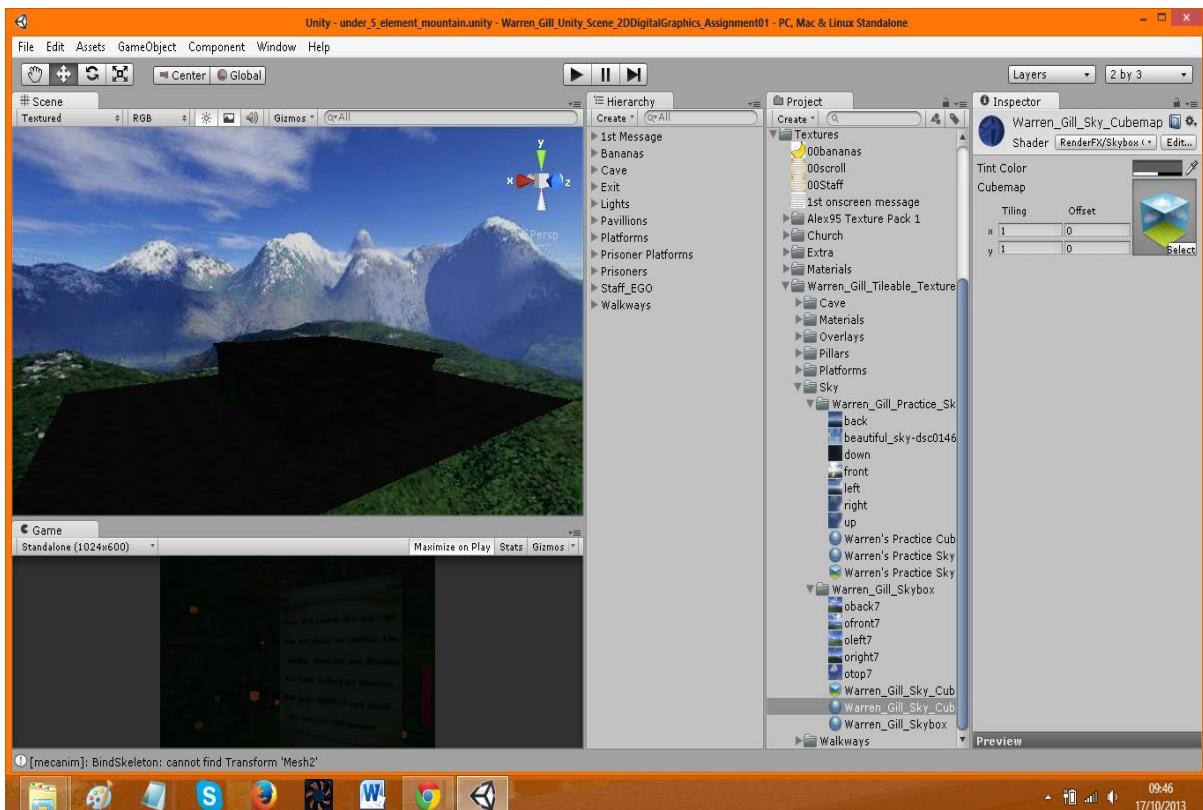
When I was happy with everything in the level I baked the lights and created a light map of the scene. This process proved quite taxing and confusing and I later found out that it was due the fact I was using the free version of unity. i.e. most of the lighting and shadow features present in the pro version are missing. To begin I selected everything in the scene I wanted to be lightmapped and set it to static and then I selected all meshes and set them to generate light map. I then opened the lightmapping window and clicked bake scene. After baking the lights all of the bump maps appeared flat and this detracted greatly from the overall look of the level. The light map itself was abnormally large also and I discovered I had been extremely overzealous in my usage of point lights and flame particles. To remedy the issue I deleted the majority of the flames, stave a few I left at essential junctures of the level and used two directional lights to create a little shadowy effect and four point lights to enhance the bump maps. Using unity's shaders I also created a self-illuminated material and placed it on yellow boxes to represent the flames lining the player's path. I then baked the lights again and the subsequent light map that was created clocked in at 5.3 MB.