

GAME DESIGN DOCUMENT

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I. Project Inquiry

1.1 Proposed Question

“How can I engage with the contents of an ancient Chinese literature (The Classic of Mountains and Seas), recontextualise it to a digital interactive yet preserving its peculiar aesthetics and tales?”

*See more about ‘The Classic of Mountains and Seas’ in Section 1.2 Historical Context

1.2 Historical Context

‘The Classic of Mountains and Seas’ is an ancient Chinese literature which records mythological tales, landscape, strange creatures, medicine and rituals. The book has no ‘narration’ but instead follows a repetitious format of announcing a location, then its resources inhabitants. Most descriptions are very vague, barely passing 1-2 sentences but are strange and peculiar nevertheless.

The book includes some of the most important Chinese mythological tales known to date. Early scholars often referred to it as an ‘encyclopedia’ with many believing that its contents were real. As such, it is a wonderful insight into the ideology, religion and beliefs of ancient Chinese people.

The exact author of the book is unknown, it is speculated as a compilation of work over several centuries, tracing back to as early as the 4th century BC.

It was speculated that the original book ‘The Classic of Mountains and Seas’ was a collection of observations of wild animals and wrongful interpretation / misinformation. As an example, a creature name ‘Chang You(长右)’ was described as “a monkey like creature with four ears. Whenever it appears, it causes and brings flooding”. This referred to the animal we now know as the stump-tailed macaque. The stump-tailed macaque could predict flooding (not the only case of animals predicting natural disasters) and would scream and flee in all directions before disaster could struck.



A Qing Dynasty print of the nine headed phoenix, and interpretation of a creature from the book, Unknown Author
<https://www.wdl.org/zh/item/2875/>



Illustration of 'Chang You' from 'The Classic of Mountains and Seas', sourced from:
<https://baike.baidu.com/item/%E9%95%BF%E5%8F%B3/2811085>



Photograph of 'Stump-Tailed' Macaque, sourced from:
https://parody.fandom.com/wiki/Stump-Tailed_Macaque

1.3 Rationale

I want to build an interactive project around the strange and bizarre mythological creatures described in 'The Classic of Mountains and Seas'. The description in the book is often very vague and doesn't offer much insight into the behavioural aspect of these creatures. Perhaps it is better described as a dry 'list' of mythological creatures, and I intend to deliver it an interactive and immersive experience.

I want to bring the creatures to life by assigning them with my 'own' unique behaviours (my creative interpretation and guesses of what they might be capable of). I want to build an extensive ecosystem around these creatures, featuring an abundance of interactions between species, or them with their environment/surroundings.



Screenshot of 'Classic of Mountains and Seas': https://www.cqcb.com/reading/2018-11-19/1244674_pc.html

Note: descriptions of gameplay are provided in Section 2.1 Game Concept

I aim to achieve these 'Point of Difference' in our projects upon its completion:

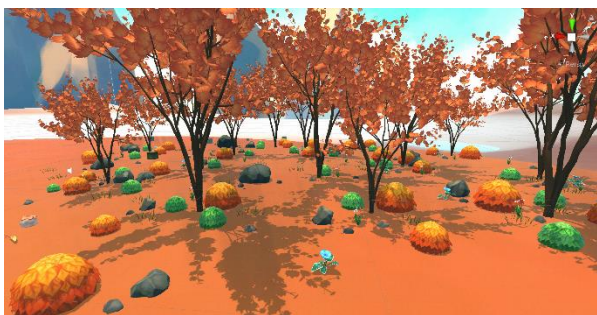
1. Most games on the market only serve the most famous creatures from 'The Classic of Mountains and Seas', and when they do they tend to be generic designs purely for pretty/cool appeal, which is an understandable tactic for marketing as they are appealing to the taste of the general public.

But I want to deliver creative and unique interpretations that preserves the strangeness and bizarre descriptions provided the book (see bottom left image from the previous page).

- Quite a lot of times, creatures/animals exists in games only to serve as a resource pack (of meat/hide) for players and interactions beyond that is rarely explored. It feels particularly wasteful especially when interesting creature designs don't open up to equally interesting/unique behaviour. The book innately offers strange looking animals, so I want to experiment with weird/peculiar behaviours and build very comprehensive collection of behaviours for each species. I want the existence of these creatures to be meaningful even without the presence of the player. They will interact with members of their own species (fighting for territory, stealing young from other couples etc.), with other species inhabiting the same areas (hunting, disturbing/scaring away unwanted creatures etc.) and the very environment itself (collecting branches/rocks, destroying trees for a clear nesting area etc.)

Note: To see more on creature behaviour design, view section 3.1 Creature Designs

- There will be two clashing visual styles in the game. The environment will be composed of 3D stylized assets (picture on the left is a scene capture from our prototype). The creatures will be 2D (illustration/animations) sprites



in the style of the Chinese ink painting to the right, featuring expressive brushwork, varying opacity colours etc. This is intentional in creating a sense of separation from creatures and their world, suggesting that they don't belong in it. This was a deliberate choice to highlight the background story of the game: the creatures have escaped from the very book, 'The Classic of Mountains and Seas' itself and have inhabited the land (thus maintained a similar art style to the book). This feature is very experimental and is subject to change over the course of the development.



'Rooster Painting', Guo Shao Jun,
<http://guoshaojun.zxart.cn/Detail/13328>

1.4 Context

Our field situates within the game industry, along with 2D illustration (Chinese ink painting).

Part One - General Game Design Inspirations

1. Subnautica – Open world exploration game under the sea, lots of strange creatures around the waters. Interestingly, there are no guns in the game. In a public Steam reply, Charlie Cleveland (dev) stated that he wanted players to experience ‘another way forward’, where players are expected to ‘use non-violent and more creative solutions to solve our problems’ and create an experience where humans ‘are not at the top of the food chain’. This message really spoke to me, both the creative solutions and players at the ‘top of food chain’ aspect. Often games are delivered as an experience revolved entire around the player being the most powerful and able, where all enemies/creatures/environment solely exists to service the player. His philosophy really spoke to me because I want to build a much more intricate relationship between the player, creature, and the environment. I want to create a balance where all are equally reliant on each other.

2. Pokémon Snap – One of the only ‘photography-based’ game I can think of from the top of my head, that uses snapshots as a key mechanic. This is a game where player is pushed through a pre-determined rail, observes and takes pictures of Pokémon in their surroundings, although creature behaviours and interactions are somewhat limited. The railed pathway seems somewhat forced. I want to give players their own freedom of exploration in my project. Watching footages of this game made me realise my likes / dislikes in titles like these, and helped me consolidate my own direction. I took notes on features I wished to be included, and what more I wanted as a player. I hope to utilise these notes in the development in my own project.



Screenshot from 'Pokémon Snap', source from: <https://nintendowire.com/news/2021/04/29/pokemon-behaviors-are-on-full-display-in-latest-new-pokemon-snap-trailer/>

3. Equinox – Ecology game where players place their own selection of plants and animals into the world. Players have to 'balance' the ecosystem by implementing enough resources and environmental requirements. Essentially, this game aims for the same goal as my project, to create a balance in the ecosystem, although the 'fun' of this game lies in the maintenance of all different biomes and the varying species in them. Although this is a different direction to mine, the reviews offers a great insight into the likes/dislike of the sandbox/creative puzzle solving genre (my target audience). For example, most players enjoyed the relaxation that the game brings from very simple stuff like 'watching grass grow', and disliked the repetitive side of the tasks (no replayability).

4. Shenmue – An open world action-adventure game featuring brawler battles, with an interestingly heavy emphasis on life and social simulation. Shops and bus had schedules, and NPC had their own daily routines. Although it was quite slow and players have to wait around and kill time, it was quite unique for games of its genre. Since my project also features lots of waiting (in-game hour-based animal behaviours), it's interesting to learn about 'time-killing' methods that Shenmue has incorporated (odd jobs, other interesting characters and gambling). So an important consideration for my game is: Could I utilise the 'time-killing' aspect and guide the player's attention to the overarching themes of the whole project?

Part Two – Notable Art Games

I researched into other practitioners whom incorporated traditional artforms/art styles into the digital stage. Below are key practitioners whom are relevant to my project:

1. Dordogne – an adventure experience where a woman visits the house of her recently deceased grandmother. All the characters and sceneries were hand painted then scanned for implementation. As the character moves around, the seemingly 2D environment rotates around them, creating a mesmerising experience that seems to blur the boundaries between 2D and 3D games.



Promotional screenshot of Dordogne, sourced from official Steam page, <https://store.steampowered.com/app/1272840/Dordogne/>

Part Three - Chinese Ink Painting Inspirations

I will be researching and studying the works of famous Chinese ink painters, and experiment with incorporating their traditional techniques into that of digital painting/animation.



1. Xu Beihong (1895-1953) – Chinese ink painter famous for his unique style, and his illustration horses and birds. He studied both Chinese and western styled paintings, and incorporated western techniques into his ink paintings despite them being completely different styles.

("Galloping horse" by Xu Beihong (1953), sourced from: <https://artsandculture.google.com/asset/galloping-horse-xu-beihong/zwGof4Q8kL-AUQ?hl=en>)

2. Chang Dai-chien (1899 - 1983) – famous in his earlier years as a Chinese ink painter, he also became renowned as a modern impressionist and expressionist painter in his later years. His unique style comes from his invention of the 'coloured-ink splashing' technique.



("Family by the valley" by Chang Dai-chien (1980), sourced from: http://www.bcprs.com/page147?article_id=15)

1.5 Methods

Amy's Part - For this project, any 3D modelling of assets (such as plants/rocks) will be completed using Maya or Blender, and texturing finalised in Substance Painter. Concept designs, illustrations, UI elements (icons) will be done in Adobe Photoshop. As for 2D animation, Adobe Animate is the preferred option but this is subject to change.

Tony's Part - The code side of development involves creating Pseudocode in Microsoft Word (or similar), then C# programming in Unity using Visual Studios. Game mechanics design and testing will also be completed in Unity.

1.6 Outcomes

By the end of Studio 2, we hope to achieve a vertical slice of the game with a functioning ecosystem. Specifics are given below:

1. Ecosystem involving at least one member from each of these parties: predator, herbivore and miscellaneous (players are able to utilise for puzzle solving, such as controlling sea levels, day/night cycles)
2. Giving players the ability to experiment within the game through miscellaneous creatures (sea levels, day/night cycles), planting/removing features such as food, baits (holding food in hand to lure creatures)
3. Advanced AI systems (Unique behaviour and routines) for all creatures implemented (turking, nesting, working together to escape from predator)
4. Creature animations to signal different behaviours (could be a rough signifier)
5. Player 'snapshot' system working, screen captures are stored in a cache that could be accessed anytime by the player
6. Functional encyclopedia system where snapshots of unique behaviour unlocks a progress bar (e.g. 3/7 captured) for that creature. Certain flag points disclose more information about the creature for the player to tinker with, and a completed progress bar unlocks the encyclopedia page for that creature.
7. Established UI system with illustrated icons and sprites.

2. Game Summary

2.1 Game Concept

Background story for the game is quite simple. The creatures have escaped from the book 'The Classic of Mountains and Seas' and found themselves home on this fantasy land. It is your role as a player to observe these creatures, study and snapshot their unique behaviours so you can complete an encyclopedia page for each creature. For the player they can also utilise creative thinking to tinker with the environment, or the creatures themselves to encourage more behaviour (breaking a creature's nest to see it rebuild, destroying all the food in a creature's territory which forces it to fight for food in a nearby territory).

The original 'making' of the book sprang from observations and misinterpretations of real animals. This was an ongoing collection process that lasted several centuries. So instead of describing my game as one that 'repairs' the book itself (it is empty since all the creatures fled from it), it could be better worded as players crafting their own version of 'The Classic of Mountains and Seas'. Since there's a heavy emphasis on implementing unique and interesting behaviours for the strange creatures, the snapshot/capturing feature is a core design choice intended to guide the player's attention towards them.

Upon focused observation, players should also learn each species' impact and role on the ecosystem, identifying potential threats (both to other creatures and environment as a whole) and prevent incoming trouble or solve that particular problem. For example, 'sun birds' fly up to the sky to act as the 'sun' during the day, providing warmth and light for other species to thrive and plants to grow. However, an over population of them will result in droughts (less water for all species in the system -> more fighting between creatures as a competition to gain access to water) and an under population will diminish plant/food growth (herbivores may die out -> predators have nothing to eat). It's a learning and experimentation process to find balance between species and their environment. As players learn more about the game and its ecosystem, the idea of 'balance' becomes more and more important as an overarching motif for the whole project. This is a reference to the mythological tales contained in 'The Classic of Mountains and Seas', where 'balance' seems to be an important and recurring theme. Two examples of these stories are summarised below:

- **Nu'Wa mending the sky** (story about physical balance between heavens and earth): The supporting beams between the sky and earth collapsed and world was thrown into chaos. Nu'Wa melted stones of all colours to patch the holes in the sky and slashed off the feet of a giant turtle to use as a new supporting beam.
- **Hou Yi shooting the sun** (story about overpowering sun disrupting the balance of all life): The 'sunbirds' takes turn acting as the sun for the world, a

different one each day. Then one day, their mischievous nature drove all of them into the sky. The world became uninhabitable and life was unbearable. So Hou Yi shot down 9 of the birds with his great bow, all but one bird was left to sustain life.

2.2 Game genre

For the players, at first it will just seem like an exploration and experimentations with creative puzzle-solving game. As gameplay progresses, they will soon understand that learning and accumulation of knowledge will be an integral part of their experience.

Exploration and learning as core components should be experienced through several layers:

1. Direct / physical exploration of the environment through observation. What's in it? What are key components to sustain life (sun, water, food and their locations)?
2. Learning about the intricate and delicate nature of the ecosystem. Over-population or under-population of any species may result in chaos. What threats does each species impose to other inhabitants or to their own environment?
3. Unique behaviours of the creatures. How could these traits be utilised to achieve the player's own goals (playing with a creature's ability to control water levels)? How well do you know these species?
4. Bigger picture vs Tasks at hand, then understanding consequences for their own actions. To players, how will they interpret their actions and its effects on the whole world?
5. Making the player learn more about themselves. What will they do when they are given the freedom to experiment and play with all the tasks above? The game will not try to guide/hold your hand in anyway, so each player may find their own unique playing method to progress in the game. Some may not notice the 'balance of the ecosystem' aspect until it's too late. Determining the emphasis of their own 'play' is completely up to each individual, and tailors a personal experience to each player.

2.3 Concept Evolution

The project proposal has gone through several iterations to arrive at its current state. It took weeks of consultations with mentors and brainstorming for the ideas to consolidate. Special thanks to Matt Riley for being so patient and helpful.

The following is a roadmap outlining the evolution of the project idea, perhaps it will offer more insight into the design choices I've made.

Project Proposal #1

Summary:

As a fanatic of the open-world exploration/crafting genre, the original idea sprang from complaints towards the lacklustre titles in the current market. Most titles seem to be horror themed and very punishing towards the player. The mechanics and gameplay seem to be repetitive, and nothing new is offered across titles. There's often no depth to the story and environmental settings seemed generic. So, I wanted to create an opposite experience, of one that's welcoming and relaxing yet still intriguing.

Intended selling point:

A game involving the combination of open world exploration and creature-capturing, there is no similar titles out on the market. (at least from what I know)

Limitations:

The idea is not compelling by itself, it seems to be a mash of other games out on the market. The book seems to offer so much more (motif, mythological tales) yet they are not properly utilised.

Project Proposal #2

Summary:

The focus shifted towards the creatures (in the book) alone, onto constructing unique behaviours for each species and creating a comprehensive ecosystem with the different creatures in the book. The goal was to deliver the contents in a book in an interactive and engaging manner (make both the world and the creatures feel alive and breathing), focusing on the strange/unexpected side of the creatures. The player's role is to act as a 'documentary-maker' and snapshot intriguing behaviours of the creatures.

Intended selling point:

The entire game is in a stylized 3D art style. However, upon a snapshot, the player will be awarded with a beautiful Chinese ink painting (made from shaders and post processing) which they can add to their collection. The selling point would be purely aesthetics, an example of this transition is shown as the images below.



(Image on the left is a progress capture from the current Unity prototype)

(Image on the right is titled 'Chinese Ink Wash Painting' and it's sourced from:

<https://www.youtube.com/watch?v=nI0tcVkBK4>)

Limitations:

The idea is too simple, with no depth (or other layers) of interaction. There is no bigger goal/objective for the player to work with. Players may feel lost around their purpose in the world, and it may get boring/repetitive very quickly if the game was purely focused on this one mechanic.

Project Proposal #3 (current)

(Summarised in the pages above) Overarching themes surrounding balance (common motif in Chinese mythology) added. Background story is constructed so there is a better 'drive' for the players, they now have a goal to work towards.

3. Preproduction

3.1 Creature Concepts

Before concept design could be discussed, the method of interpreting contents from the book 'The Classic of Mountains and Seas' must be articulated.

The description for the creatures is sometimes very restricting, and at other times vague (more open for creative interpretation). As highlighted by Matt Riley, 'the selection of the creature' thus becomes very important towards making the designs interesting. I wanted to modernise their designs to fit the digital platform, but I also wanted to preserve the very 'essence' of the creatures, because those are the elements that intrigued me in the first place.

To accomplish this ideal, I've highlighted only the keywords from each description and centred my designs purely off these keywords. Some examples are provided below:

Creature #1:

Creature name: Zhu Jiu Yin(烛九阴)

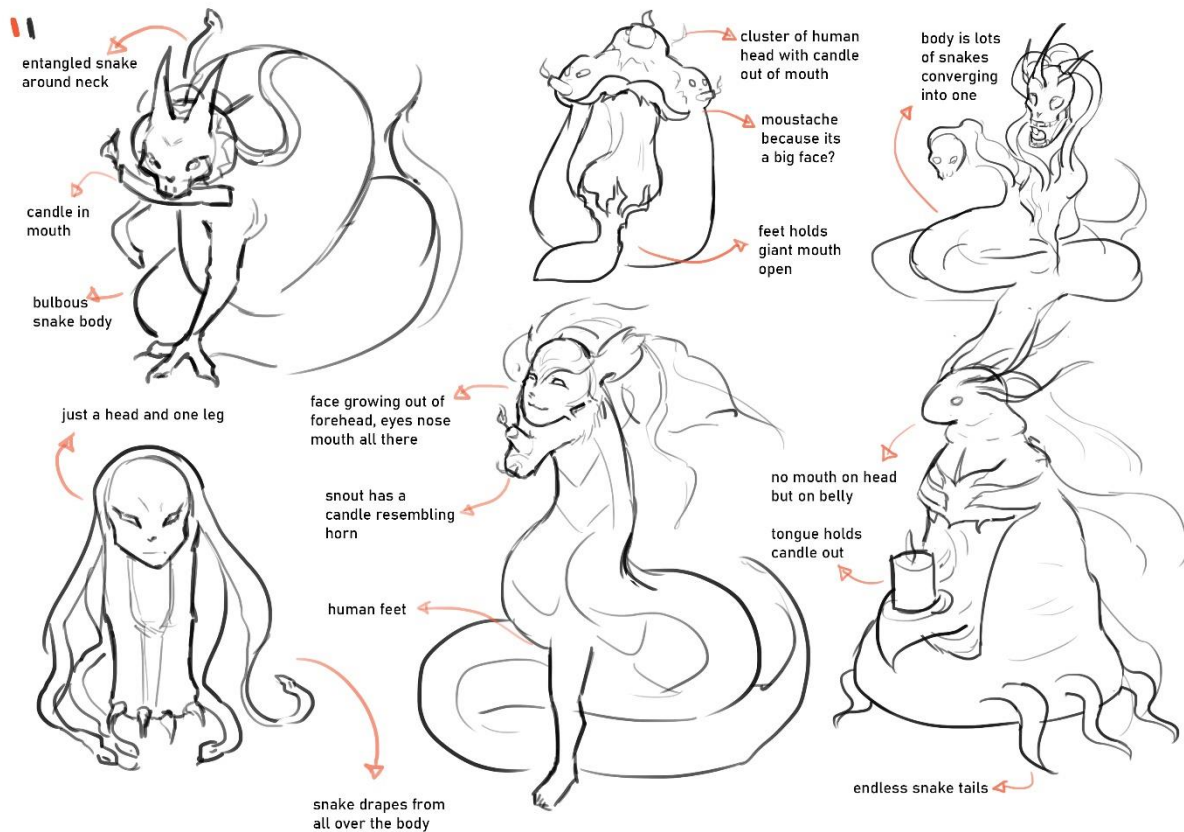
Rough Translation of description:

It has the face of a man, and its body resembles a giant red snake stretching thousands of miles, it has a single leg. It holds a candle in its mouth, and when it opens its eyes the entire world is lit up, and when it closes its eyes darkness would fall.

Selected Keywords:

Human face, snake, single leg, candle in mouth

My annotated concept designs:
 (I'm trying to stay away from typical signifiers of 'pretty/cool' designs seen in a lot of video games. Just stretching the keywords as far as I could to see if interesting directions develop)



Creature #2:

Creature name: Three Legged Bird (三足鸟)

Rough Translation of description:

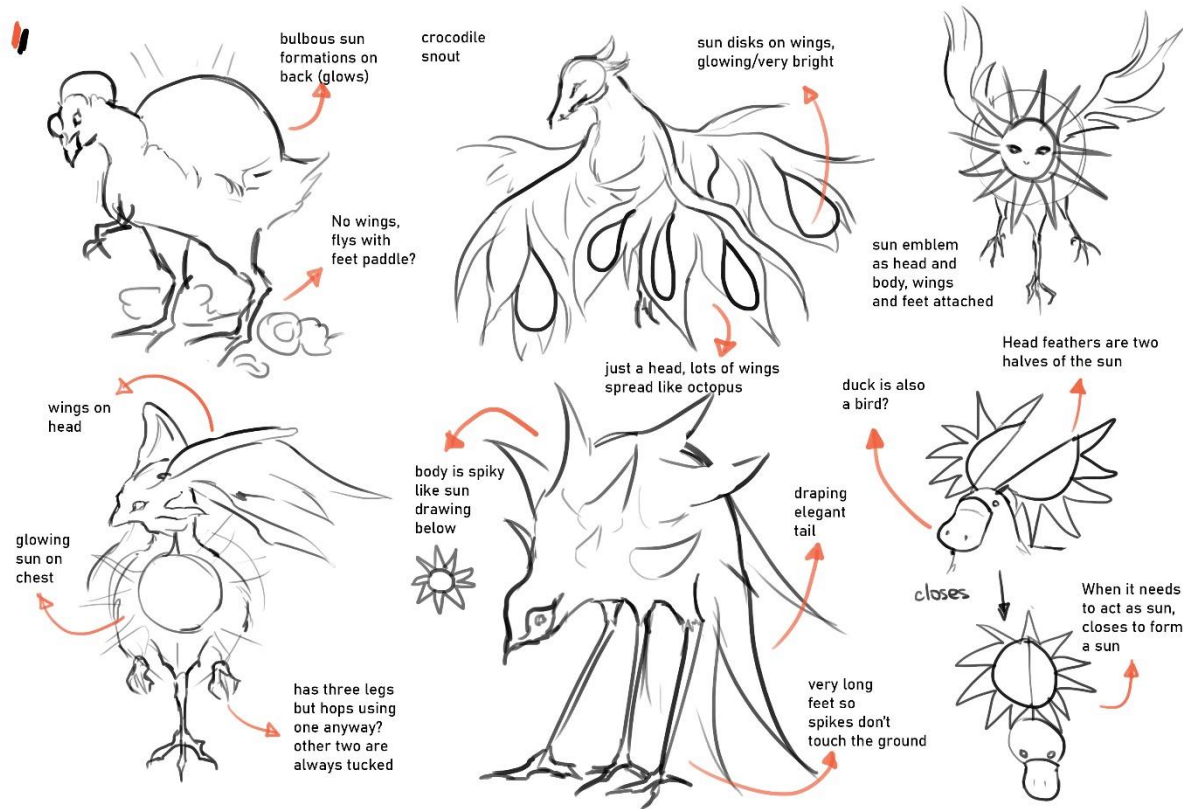
The sun in the sky is actually a bird shrouded by glowing beams. During the day, they ascend to the sky to act as the sun and by night they bathe in a giant hot spring. They are nicknamed the 'sun bird'.

Selected Keywords:

Bird, sun, three legs

My annotated concept designs:

(Next Page)



As I work on these designs, I also try to think about interactivity revolved around these creatures. As an example, the first creature 'Zhu Jiu Yin' could introduce a control for the day/night cycle. The player could wake him up/try to get him to sleep to dial the clock forwards/backwards. This could be a method to speed up/slow down time for 'hour specific' behaviours from creatures. (e.g. creatures sleeping in their nest during the night)