

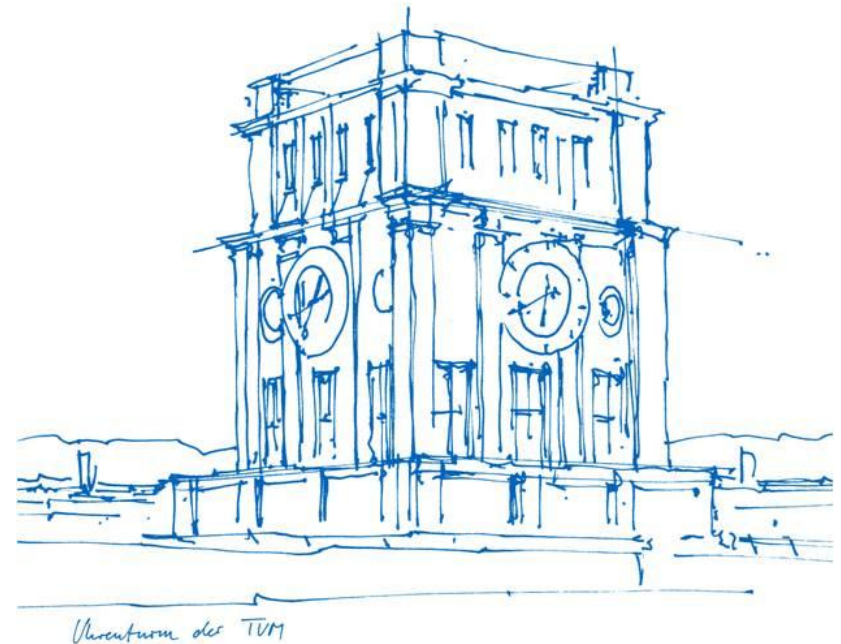
Escaping Ancient China VR

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The idea

- Chosen topic: history
- China has a rich history, barely taught in the West
 - Teach the player about Chinese history
- Project: Escape room - How to combine with chosen topic?
 - Escaping Ancient China (VR)

Game synopsis

- The player stole a time travel device out of the university lab
- Accidentally travels back in time → ends up in ancient China
- Player wants to go back to present time
- There are sources of energy that can charge the time travel device in the rooms



Layout of the game

- 3 different rooms + tutorial room
- Each of the 3 rooms represents a different time period & corresponding Chinese dynasty
- Escape the rooms by solving puzzles
- By getting to the next room the player “advances” a couple hundred years



Chosen Chinese dynasties

- Qin dynasty (before 200 BC)
 - first imperial dynasty of China
- Han dynasty (ca. 200 BC–200AD)
 - many significant inventions and cultural advancements
- Tang dynasty (ca. 600–900 AD)
 - golden era for Chinese culture

Puzzles

- Each puzzle teaches about one important cultural or societal advancement
- A puzzle belongs to one or multiple time periods
 - One period: teaches about certain aspect unique to that time period
 - Multiple periods: shows changes between dynasties over time



Puzzles in first room (Qin dynasty)

Qin dynasty (1)

Map puzzle

- Objective: place puzzle pieces in the correct position.
- Learning outcome: the locations of each kingdom in the Warring States era of ancient China



Qin dynasty (2)

Armor puzzle

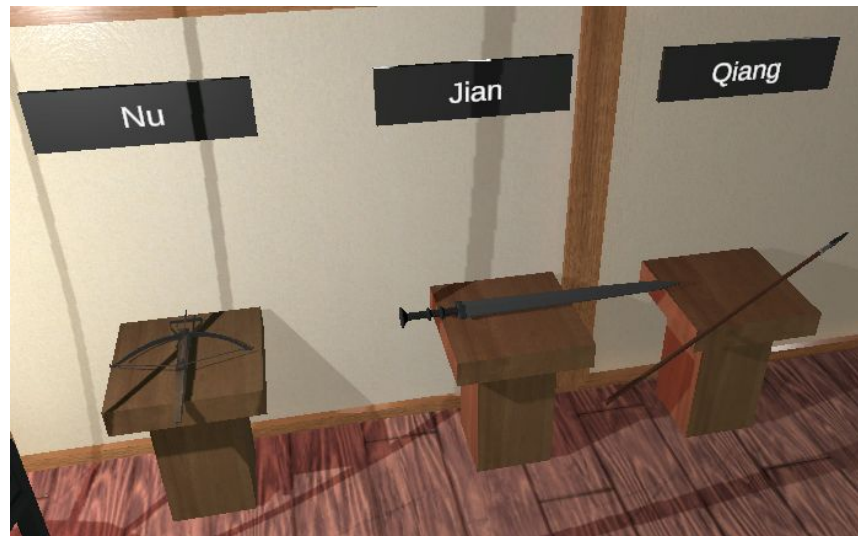
- Objective: place armor in correct room
- Learning outcome: how the armor design & used materials changed over time



Qin dynasty (3)

Weapon puzzle

- Objective: find weapons and put them on the correct pedestal
- Learning outcome: which weapons were commonly used & which materials they were made out of

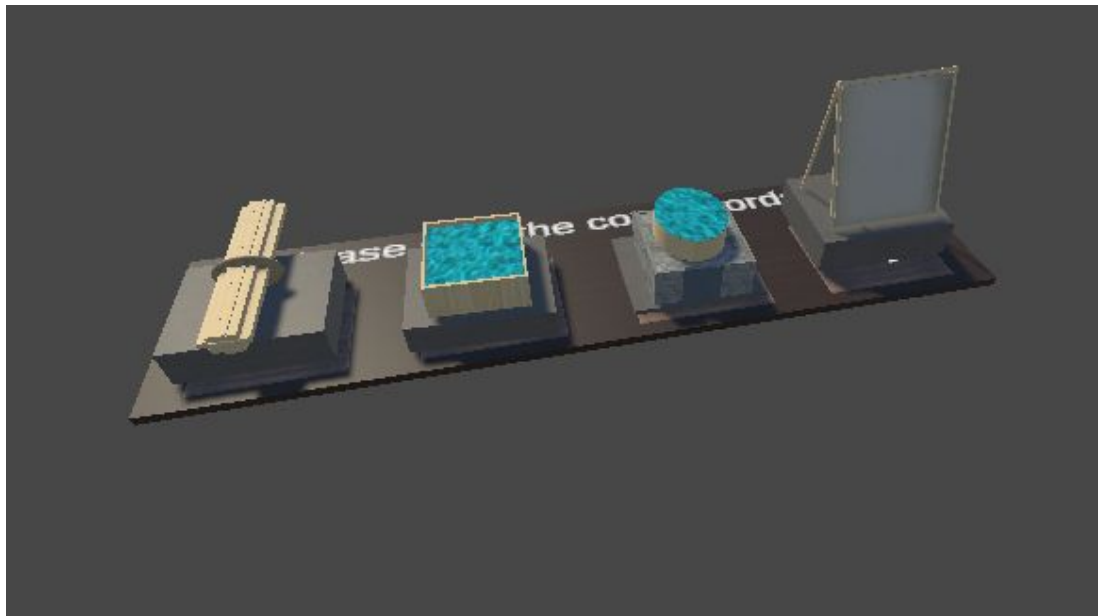


Puzzles in the second room (Han dynasty)

Han dynasty (1)

Paper making puzzle

- Objective: place game stones in the correct order
- Learning outcome: how the ancient Chinese produced paper



Han dynasty (2)

Chinese character puzzle

- Objective: place tiles depicting Chinese characters into slots
- Learning outcome: how the Chinese characters have evolved over time



Puzzles in the third room (Tang dynasty)

Tang dynasty (1)

Six ministries system puzzle

- Objective: match the ministry's name with its duty.
- Learning outcome: responsibilities of each ministry



Lantern riddles

- Traditional Chinese lantern riddle + poem
- Learning outcome: activities of traditional Chinese festivals



Tang dynasty (2)

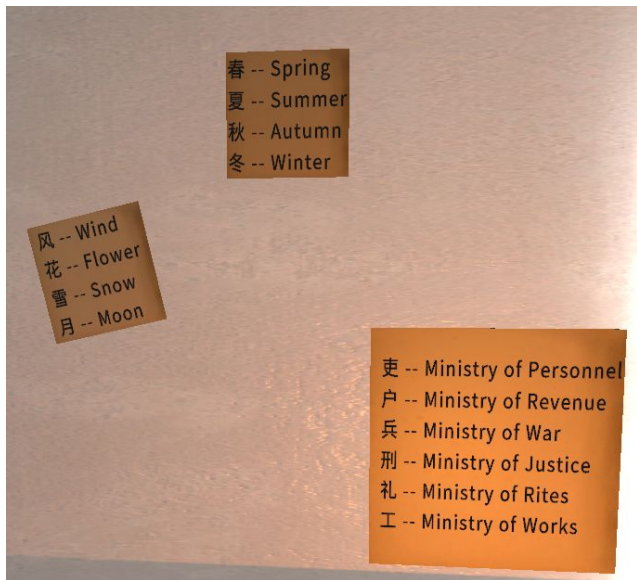
Clothing puzzle

- Objective: put different pieces of clothing from a closet to their correct room, i.e. time period
- Learning outcome: how Chinese traditional clothing evolved over time



Learning aids for the player (1)

- Various interactable books & hints spreaded throughout the rooms



Learning aids for the player (2)

- Interactable AI “talking portraits”
- can tell more about any object in the game



Limitations

- Limitations of D-iD API
 - Copyright issues for images.
 - Uploaded pictures only accessible for 24 hours
 - Possible solution: Create a dedicated host server
- No fact-checking of AI-generated text

Outlook (1)

- Learning outcomes
 - Did the players learn the desired outcome?
 - Possible user study: let subjects answer questions related to the content of the game before and after playing it

Outlook (2)

- Discoverability & understanding
 - Do the players struggle with certain puzzles? Are more instructions needed in the beginning?
- User experience
 - Is the game enjoyable? Would the players play it for fun?
- Usability
 - Are the game controls intuitive & easy to learn?

→ Another user study with playtesting

- “Think aloud”

Gameplay screenshots



Any Questions?