The Resistance:

AVALON

presented by SUPER POLLO

➢ Daniel Ni (danielni@uchicago.edu)

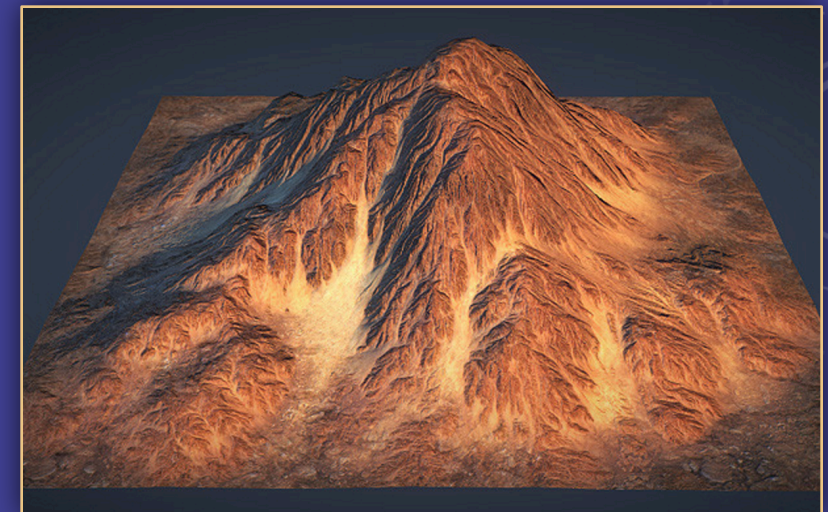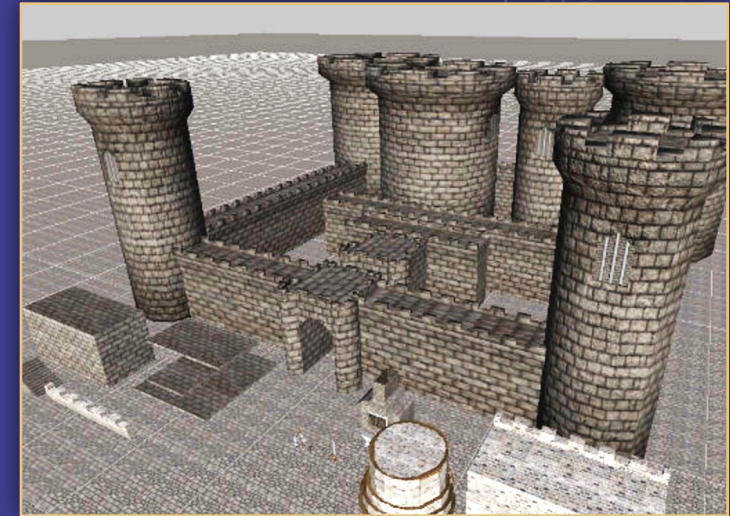➢ Amy Sitwala (asitwala@uchicago.edu)

PROBLEMS AND OPPORTUNITIES

➢ What experiences are missing in board games?

➢ What games have you played on your smartphone?

MULTI-PLAYER & AUGMENTED REALITY

➢ With adventure-type board games (Lost Cities, Avalon), the board is relatively static

➢ Your environment doesn't change when you go on a quest

THE IDEA

Incorporating the traditional board game experience
into the domain of mobile games

➢ All players will be in the same room seated around a QR Code

➢ When players gaze at QR Code through Cardboard headset, 3D board will appear

➢ Players' roles will randomly be selected

RELATED VENTURES

CMOAR AR RPG

➢ Single player

➢ Board is a QR Code

➢ By gazing around, player can explore the 3D terrain

TECHNICAL APPROACH

QR CODE

>> Image Target
>> Represents state of game

>> Game Engine to produce Google Cardboard VR app
>> Create different scenes and organize environment and players
>> Use Networking API to connect players

Qualcomm® vuforia™

>> Unity 3D extension that supports AR
>> Allows images to act as surfaces upon which models crafted in Unity can be placed
>> These "image targets" will be registered in a database

POSSIBLE RISKS

1. Keeping track of game state for all players (4 – 10 players)
   a. May simplify by starting with support for 4 players

2. Testing may be difficult for such a large multiplayer game (will need multiple devices)

3. Timing/Processing
   a. How long will it take to display changes in the game state?

4. Difficulty scanning/recognizing QR code

TIMELINE

1. Map out all possible scenes and game possibilities (0.5 weeks)

2. Install Vuforia Extension for Unity 3D and test "Image Targeting" features (1 week)

3. Work on basic functionality
   a) Integrating the QR Code (1 week)
   b) Networking and Multiplayer Options (1.5 weeks)

4. Make game more visually appealing by changing player assets, using texture mapping, etc. (2 weeks)