#### Root Games Week 1

The roots of games!

- **Key Game:** Knucklebones: ca. 5000BCE, Unknown Developer, Dice Game, Unknown Region
  - o Like Jacks, throwing dice into the air and trying to gather the dice on the ground.
  - o Made out of knuckle-bones, different sides were an early random generator.
  - o Very very old. As dice, they are some of the earliest game implements.
  - o ca 5000BCE are just the earliest FOUND, and we don't quite know where they came from.
  - o Gets us to start thinking about the long history of games.
    - § Helps us trace the histories and form a narrative of games.
    - § Unlike music and dance, games and play are not ONLY human (though same with dance and music?)
    - § We can play with other animals and they understand.
    - § Doesn't seem that amazing. Animals are smart as fuck.
- 1.8 Million years ago- Homo ergaster
  - o Use tools
    - 300,000 years ago, evidence of burial rites.
  - o We can see evidence of a culture in this, the dead have rights.
- 200,000 years ago Homo sapiens
  - o Us!
- 150,000 years- clothing, jewelry, speech
  - o Material culture starts developing
- · All of human culture happens after this!
  - o Before all this is games! Animals pre-date us and they play games!
  - o Games exist before humans!
  - o The joy of moving
- **Knucklebones** is interesting as a family of games, and also something very old and very primal and we've always figured out a way to play something.
- · Key Game: The Royal Game of Ur
  - o Ca 3000BCE, Unknown Developer, Board Game, from Mesopotamia (Iraq).
  - o Also known as (AKA), the Game of 20 Squares.
  - o Guesses on how it was played
    - § Race Game
- Two players probably starting on opposite sides, and race to their squares on the opposite end.
  - o You had to have a level of civilization and comfort to play the game
    - § A storage place, a place to teach it

- o The idea of mapping space on a board is an innovation of Ur.
  - § The idea that one space can occupy a space at a time.
  - § How space should be represented is Ur
- o Played by commoners and elites
  - § As shown by gameboards scratched into the floor
  - § First evidence of modding in a game
- o In addition to this being a popular game with a design language

### § It uses dice

- How do Dice Work?
- · Ur uses triangular dice, where two points of the pyramid are covered white, and two were black.
- So whatever colored tip was up decided something.
- Dice pyramid
- o The results of the dice go from uncommon to less common, to common and back down.
- Allows for the player to make a prediction based on likelihood of dice rolls.
- They are random, but they have probabilities and can make an informed guess.
- Ur is here to remind us that the relationship an ancient person had to this game would be very different from ours. They are games, but also tools of divination, a way to see if the gods are favoring you.
  - § The relationship between dice, luck, and fate.
  - § There is no relationship between the religious and secular
- The God Marduk favored you or not.
  - o A very simple game can have A LOT going on with it.
- · Key Game: Senet
  - o Ca3000BCE, Developer Unknown, Board Game, Ancient Egypt
    - § Race game, but a single track moving back and forth, unlike UR.
    - § Is both the board and the way to transport it.
    - § Very popular, people playing for pleasure, drinking
    - § Found on the tomb of an emperor, buried with set
  - o Why?
    - § There's an interesting theme and mechanic to the game.
  - § Suggested heavily that it started as meaningless and then gradually accrued a theme and be *about* the journey of the soul to the afterlife.
- It was talked about and valued as a teaching tool for what life would be like and how to be a good person.
- · You could sit there and play and have fun and also ponder on your place in the universe.
- An idea of what the game was about grew out of the mechanics.
- Mechanics or Game Mechanics

o **Units of gameplay**, re-combinable game actions that are often shared between different games (e.g. roll dice, move piece, capture opponent)

# · System

o The overall game described as a collection of mechanics and the rules.

#### Theme

o The fictional or representational aspects of the game.

### · Key Game: Backgammon

- o CA3000BCE, developer unknown, Board Game, Ancient Persian (modern Iran).
- o Remained a popular game since forever.
- o Super common in the middle east
- O It's interesting when players have to use the same track to move.
  - § Similar mechanic to Ur
- o Interesting use of dice
- § Your dice can be spread out across pieces. You can use them on one piece, or split them between two pieces.
- o Things younger than Backgammon:
  - § The U.S.
  - § The French people, language, and country
  - § Philosophy
  - § Unification of China
  - § Older than use of Iron
  - § Older than the Pyramids and the domestication of the camel.
- o Why?
  - § It is an immortal game that burst onto the scene and has been played ever since.
  - § We'll be playing something that connects us to the past in a very visceral kind of way.
  - § Has transformed today in terms of using computers to determine probabilities.
  - § There's a doubling cube, added in gambling games
    - We can double the amount of money, or you can pay me now.
    - · You can continue to double the amount of the bets
    - · Invented in the 1920's by an American in the East Village

### Key Game: Mancala

- o Ca 600CE, board game, eastern Africa
- o Family of games
  - § I played Oware and Ayo,
  - § In Kenya and Zanzibar, the most popular version is **Bao**
- · Considered more in the family of backgammon and chess
- · Spend your life mastering
- · Mechanic is called "sowing"
  - o Emerged in East Africa but has boomed internationally

- o Why?
  - § A family of deep games.
  - § The concept of "depth"
    - It is a game that will support long term play and serious study.
      - o Study in terms of multiple lives.
    - There is a quality in games that allows them to survive for hundreds of years.
    - When a game has that longevity, when you can ALWAYS get better, that gives the game depth.
- § Mancala has:
- No randomness
- No hidden information
- Not many choices per move
  - § A game tree
- A game has a limited number of states, and the game tree shows that.
- Tic Tac Toe has a limited game tree.
- There are more states in "Chess" and "Go" than pebbles of sand on the beach.
- · Mancala has a huge fucking tree.
  - o Mathematicians love Mancala trying to figure out the complexity
    - § There are moves in Mancala that would take 800 years to finish.
- · Key Game: Go
  - o Ca 2000BCE, dev unknown, ancient china
  - o Played on a LARGE grid.
    - § There are a lot of moves you can make
  - Based on controlling territories.
    - § Cutting off the players connecting lines
  - o Groups of pieces share liberties of other pieces in its network
  - o When pieces are surrounded, the pieces are taken off the board
  - o Any formation with two internal liberties cannot be captured
    - § Strategy!
  - o Created by fisherman and draw the board in their hands (legend1)
  - o Created by Chinese emperor Yao who asked for a game to be a good influence on his son (legend2).
  - o Considered one of the 4 cultivated arts of the young gentleman.
  - Spread to Korea from China
  - o Came to Japan and made its way into imperial cultures
  - o Why?
    - § Go is what we think of as an Elegant Game
- Means it has depth and simplicity

- Simple rules lead to complex situations
- Elegance is an aesthetic value
- Linked to the idea of emergence.
  - o You have a combination of rules and large complex things can happen.

# Key Game: Checkers/Draughts

- o France, 1500CE Board Game
- o Comes from Alquerque (aka Quirkat)
  - § 5x5 board
  - § 8x8 board introduced in 1100CE
- o International Draughts
  - § Played on 10x10 board
- o Why?
  - § Checkers is solved.
  - § English Draughts (8x8) is considered solved.
  - § When you can correctly predict the outcome of the game from any position.
  - § The makers of the program Chinook.

## Key Game: Chess

- o India, 600BCE
- o Four divisions of the army
- o From Persia
- o In India pieces are very iconic
- o Once it moves to middle east, the tension around icons makes the chess pieces abstract.
- o Middle East has had the largest effect on western conception of chess.
- o Chess is a bastardization of the word Shah (for King)
- o Why Chess?
  - § Chess has "stuff"
    - It isn't very abstract
    - Enters lots of societies
    - Has "classes"
- Each piece does something and has powers
- o That's innovative
  - Chess makes you think like a game designer
  - · Since each piece had a class, the things they do could change
  - Oueen was an innovative move
- o Originally moved diagonally, one way
- o Someone came up with the idea that the queen could do whatever it wants.
- · Chess has a lot of derivations and lots of things that has roots in it
- Any game with an RPG element can trace its history back to chess.
- Key Game: Snakes and Ladders

- o 1500CE, India
- o And Indian game
- Traced earlier to second century BC
- o The game is considered a teaching tool for indo-religious instructions
- o Connection to ethics virtues and rights
- o A game about contrasting the higher and lower forms of love
  - § Squares of virtue and vice
- o Introduced and taken by the Victorians
- o Original was for both children and adults
- o Victorians decided to make it a children's game
- o Milton Bradley picked it up and changed it to Chutes and Ladders
- o Why?
  - § It has a long history of moral instruction
  - § A game about living a good/bad life is a game where you're making no choices, you're at the whim of the wheel.
  - § Fascinating tension and meditation on the nature of choice and meaningful choice.
  - § The essence of the player is the ability to assume a role, they get caught in illusion, and the dice decide their moves.