

# **MDA Analysis of Age of Empire 2**

*2281696 – Robert Johannsen-Hanes*

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## **Introduction**

Age of Empire 2 is an Isometric game real time strategy game made by Ensemble studios and published by Microsoft. The game takes place throughout the ages starting from the stone age and ending at around early colonialism, in the game the player takes to role of the god/leader of their chosen civilisation and completely control its growth.

This report aims to break the game down into formal components using the MDA framework with a focus on data design

## **MDA Framework Analysis**

### **Mechanics**

#### **Units / unit control**

The player can select a unit/unit and give them a task. Each unit can fight but only the villagers/villager like units can build and gather resources. Once a task is assigned the unit has to go to it before doing it in a specific amount of time

Units have resource and production time cost associated with them.

Each unit is made out of a set of data systems which dictate their behaviour with a set of visible stats and hidden stats. The visible stats are things like HP, attack damage, bonuses, speed. Hidden stats are things like percentage bonuses from upgrades.

Units have inherent bonuses against other units and further bonuses from their civilisation. Units can be dynamically upgraded throughout a match. Units can enter combat.

Combat counters

Each unit has a set of bonuses which gears them towards specific classes of combat making them be more effective against certain units and less effective against others (Units with high pierce armour is effective against archers but weak to melee units).

#### **Economy**

In a match the player must collect resources to advance through the game. These resources wood, food, gold, stone form the backbone of the civilisations economy and are required to do anything in the game. It cost different resources to build structures and produce units.

On each map a set number of resources is generated in, each resource node is non-renewable. Each node has a set amount of resources and will disappear when reaching zero.

The player has other means of acquiring resources through generating (capturing relics, trade carts), trading and farming.

Gold is inherently more valuable than any other resource as it can buy higher tier units and resources through the market

## **Ages**

In the game the player can advance through 4 ages each being an upgrade over the previous age and granting access to new units, buildings and upgrades. Upgrading units increases their stats and effectiveness.

## **Fog of war**

The map is shrouded in a fog of war obfuscating where the location of the enemies and allies are, the player can lift this fog of war by exploring it with units or buying upgrades (cartography in the market)

## **Dynamics**

Age Dynamics: Since what age the player is in directly effects their ability to effectively counter their opponents a dynamic is created where players race to advance in ages for access better units (higher stats) to defeat their opposition be that through building better walls, better units or even building and defending a wonder to passively win the game.

Construction: The player has the ability to plan and choose where they want to build, giving them direct control over the map. The player is forced to engage with the construction dynamic to succeed in the game as the base will stagnate otherwise.

Territorial acquisition: Buildings take up space in the map so players are always expanding, taking up new territory to get an advantage over other their enemies this expansion can eventually lead to players clashing with other players. Players take over parts of the maps for their own benefit.

Collection: The economy of a civilisation directly effects its effectiveness; collection is important dynamic as players must engage with resource to gain resources. Player can setup elaborate infrastructure for faster gathering (placing camps closer to the nodes, making more tower centres).

Having a large collection of troops allows the player to engage in conflict, having resources allows the player to build more units buy more upgrades.

Resource management: Each action in the game has a cost, be it resources, time or both. To succeed a player must effectively manage the limited resources they have. In addition to this resource gain can be measured per second allowing for optimal use in production, making sure they have no idle villagers

## **Aesthetics**

Fantasy: The game invokes a sense of the fantasy of playing god, where the player can dictate every move and direction of their civilisations, making them build whatever they desire in the constraints of the game. Every civilisation in the game is taken from the real world allowing the player to deviate from the reality (Making the Mongolian's a navy civ). The player gets to watch the civilisation grow from nothing.



Discovery: The game has a fog of war mechanic, forcing the player to explore the map to find enemies, resources and strategic choke points. Civilisations have many routes they can take allowing for flexibility in gameplay where the player can explore which path, they follow as well as civilisations having inherent bonuses which change their gameplay entirely, allowing players to explore different strategies and counters (Huns don't need houses).

Challenge: Civilisations have unique strengths and weaknesses, resulting in different ways to play them. There are multiple maps and game modes in the game allowing the player to plan and master each way to play. The game has multiplayer with ranking allowing the player to rise the ranks as well local play having difficulties selection. Each unit class is unique in their abilities and effectiveness through their stats allowing the player to memorise the combat counters.

### **Conclusion**

Age of Empires 2 uses multiple data systems to drive the game forward. The data systems interact in complex ways allowing for multiple playstyles and approaches to each match. The game balances itself through limiting the map and resources placements. Civilisations having quirks as well as units allows for mastery of the game. Overall, this results in a complex game with many overlapping data systems.

## References

Ensemble Studios (1999) *Age of Empire II*. [CD] (PC). Redmond Washington: Microsoft.

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