

Water Rafting

Design Document

Game Context: An open-world action RPG set in prehistoric Earth.

Water rafting will offer players a fun and engaging method of travel that differs from the usual vehicle and mount options available in most open world games and in similar existing titles, while also accurately reflecting the technology available to prehistoric humans and further immersing players in the experience.

Key:

“Must Have” – core mechanics; features to prioritise

“Should Have” – ideally would be included in the prototype, but may be subject to limitations of the engine, require input from programmers, etc.

“Could Have” – ideas that may be over-scoping, difficult to implement, require more research before they are tested, or that are particularly inessential for the initial prototype

Will require iteration – features that will be heavily subject to playtesting and additional input

Function & Mechanics

- Rafts will be a crafting recipe and are able to be built from the player’s primary crafting screen whenever they are **close** (parameters will need testing) to water, provided they have the correct tools and materials.
- Rafts take durability damage as they are used, particularly when traversing rapids or if the player crashes into land or rocks, meaning players will need to craft new rafts* semi-regularly over the course of the game. **How much damage each type of collision deals and how much durability is lost through use of the raft** will require balancing and iteration, but a starting point could be to begin with durability at 500/500, with collision damage varying from 10-50 depending on how big the obstacle (small rock vs crashing into an overhanging tree), and durability lost through use as –1 durability per 30 seconds spent rafting. These values can then be increased or decreased depending on test results.
- Each raft has an interaction point where the player can lock their character into paddling/steering until exiting the action, **however the player is otherwise able to freely move around on their raft** and can perform activities such as spear fishing,

fighting attackers such as crocodiles, firing at enemies on land with a ranged weapon, etc., or freely jumping from their raft into the water and climbing back onto it.

- Whether or not steering is done via an oar or pole might require iteration as either would be historically accurate but would create a different feeling for the player. Exploring both in the prototype stage would be ideal.
 - Rafts can capsize if the player is not careful – if they spend too much time on one side of a raft a capsize warning will flash after 10 (subject to playtesting) seconds, and give them only a short amount of time to redistribute their weight, giving rafting an additional element of challenge and mastery.
 - The player's pets (if any exist) will run along the shoreline adjacent to the raft. Small pets could potentially join the player on larger-sized rafts, but as they may get in the way this might not be practical and will need to be tested.
- * There could potentially be a way to repair rafts, though this might diminish the importance of the initial crafting itself and would require careful balancing – repairs could be convenient in a pinch, but an expensive/inefficient use of resources in the long term, or a repaired raft could be less durable than a new raft (exponentially, so a raft which is constantly repaired will gradually become flimsier and weaker).

Exploration

Searching for the materials for both their rafts and also the craftable tools necessary for raft crafting will prompt players to explore and investigate their environment, in order to then build something that is a tool for even further exploration, making rafting into a feature that promotes engagement with the world at every step.

While travelling down river, the player will be able to see points of interest along the shore that may pique their curiosity, such as a village that backs onto the water, or islands off in the distance, etc., prompting them to return to land as often as possible on their way to quest objectives instead of boating themselves all over the map nonstop.

Spear Fishing

Alongside rafting, fish that can only be caught in certain areas, accompanied by a compendium of fish the player has caught, will encourage completionists to explore for the sake of filling out their collection and maybe unlocking an achievement for doing so. There can also be fish that are only found in deep water that can only be accessed via a raft, as opposed to spear fishing from the shoreline.

Incentives

In order to incentivise players to engage with the rafting system over, for example, an animal mount that might not require crafting, rafts should be the fastest mode of travel available (if not in speed then in how the layout of bodies of water might allow the player to take shortcuts where by land they would have had to travel further), and also the only way of reaching certain areas such as islands that are too distant for the player to safely swim to.

Inaccessible Areas

Including plenty of small islands that are too distant to swim to in the game's world will give players satisfying new areas to discover while rafting, rewarding them with locations rich in resources or maybe with a puzzle to solve that will reward them with treasure (e.g., maybe there is a shrine on the island to a god that requires a sacrifice, or a cave filled with cave markings that tell a story which reveals the spot for a hidden treasure on the island to the player, etc.).



Fatigue

The inclusion of a fatigue bar while swimming would contribute to making rafts a preferable form of transport; making the water both treacherous due to aquatic animals attacking the player and also due to the possibility of drowning if their fatigue bar gets too low doesn't completely remove swimming as an option for the player, but does make rafts preferable in many situations.

A fatigue bar purely for swimming might feel odd in isolation, so this bar could be used for several other exhausting actions within the game.

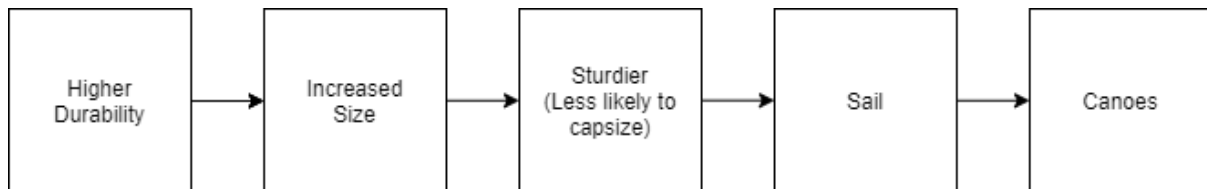
Actions that could use the fatigue bar include:

- Paddling on rafts – players could have to time their paddling carefully to find the right balance between speed and exhaustion
- Sprinting
- Charged attacks
- Climbing

Skill Tree

Raft building will have [its own skill tree separate from a crafting skill tree](#), enabling players who particularly enjoy the system to progress it if they wish, and eventually gain the ability to [build canoes](#).

The skill tree advances as follows:



- I. **Higher Durability** – rafts can take more damage before breaking
- II. **Increased Size** – rafts are slightly larger, giving the player more space to move around
- III. **Sturdier** – rafts capsize less easily, giving the player more time before the warning appears and more time to react when it does
- IV. **Sail** – allows players to craft rafts with a rudimentary mast and small sail which they can change the positioning of to direct their raft when there is wind
- V. **Canoes** – unlocks canoes, a faster and more responsive alternative to rafts as opposed to a replacement. The canoe is intended primarily for traversal, and activities like fighting attackers and fishing are more difficult due to the limited space and the lack of the ability to freely move around the boat.



The Pesse canoe, believed to be the world's oldest boat, constructed between 8040 BCE and 7510 BCE

Risks

While being one of the best modes of travel available, rafting also carries certain dangers that are balanced out by the various aforementioned rewards:

Enemies

Wildlife can attack the player's raft and do considerable damage if they aren't fought back. Crocodiles are the most common beasts, but **further research into prehistoric aquatic life will help inform us of what else to include going forward.**

White Water Rafting

Rapids on a small scale will be a frequent occurrence along rivers, but larger stretches of more violent rapids will commonly be situated immediately before a waterfall, meaning the player will be able to use the severity of rapids to tell if they are approaching one. On their own, rapids can cause massive damage to your raft if they are not navigated carefully, and the more speed the player picks up the less easy it is to steer your craft to shore.



Waterfalls

Going over a small waterfall will damage your raft and potentially harm the player's character, however, going over a large waterfall will break your raft and may kill the player if they land on the rocks at the bottom. Large waterfalls can be scarce, but exist in enough quantity that they pose a threat on several corners of the map.

Crafting

The ingredients necessary for rafts could be along the following lines:

" * " = Crafted item

Recipe	Materials	Tools
 Raft	Wood x 10 Rope* x 6	Axe*
 Canoe	Hardwood x 5 Rope* x 2	Axe* Carving knife*

If the player takes the skill tree perk for larger rafts, they will have the option to craft both

the original raft size and the newly improved raft, as the bigger raft will require greater resources.

Co-op

Rafts will slot easily into a co-op experience, with players being able to collaborate on finding materials, ride rafts together, and players intending to spend the whole game playing cooperatively could strategise around their skill trees, with one player placing skill points into rafting while the other focuses on combat, other kinds of crafting, etc.

Cooperative play could also offer various benefits, such as two-person canoes that can go even faster than single canoes, and the addition of an extra interaction point on the other side of the raft so that both players can steer/paddle in unison. Rowing in tandem with the other player will allow you to go faster, while not communicating properly and rowing out of sync will hamper your movement.

Emergent Play and Shared Experiences

Players in co-op mode could use rafts to have races, to mess with each other by deliberately capsizing the other's raft, or when two players are on the same raft, enjoy having the option to distribute tasks, with one player rowing while the other fights off enemies or fishes. Players could also take it in turns to raft, with one player scouting downriver to find new areas while the other explores on land.

The open movement while on rafts offers opportunities for many potentially funny moments, such as knocking the other player off or competing for control of a single raft.