## Orphan Age – Skill Test Balancing Process

## I) Introduction

In this document, I'll try to explain how I would take my current spreadsheet, and make it evolve into a fully balanced bunch of furniture.

This process will work with a few steps:

We start with our current state. The spreadsheet is cute and all, but it doesn't have numbers, and isn't usable as is.

So, the next step will be to select some starting values. These will probably not be balanced, but they'll give us a nice base value.

Then, there will be an iterative process of tuning the stats against each other and the rest of the game, until the results are satisfying.

Thus, let's go with our base balance.

## II) Basic balancing

In order to choose what starting values we'll need to use what's already in the game.

Indeed, balancing is not a thing by itself, but only by comparison with other data.

As such, we'll select a few basic items from the already established documentation that will serve as our standard.

We'll compare, how much more or less expensive than those standards we want each item, how the values stacks up against each other for every effect and cost. With this rough estimation, we'll have our base data.

Ideally, we'll then need to compare with the documentation about collecting resources, about how quickly the Orphans' needs go down, and all the like. With this, we can establish a simple graphic of the medium data, over time.

For instance, let's say sleep is going down by 40% per in game day, and it needs to stay above 25% for an Orphan to be in good shape. We can then trace up how much sleep is needed over the course of the game. This data can then give us a baseline of what's a standard rate of resting should be for a bed.

By crossing the data, we can theorize a basic build order, using the medium resources found, compared to the urgency of the needs, and thus of an associated furniture. This would in the end

give us a base price, by deciding of the time at which the player should be able to build our furniture.

Of course, all of this would be based on raw data, without considering the randomness, nor the player's skill.

But, based on all of this, we have our starting values.

Then, the objects can be prototyped in the game, in order to be tested.

## **III)** Testing and iterations

Then, the balance is a long and tricky process.

Assuming that there is a panel of people dedicated to testing, the base process is to make them play the game, take note of what they build, in what order, and with which results. Along with any statistically interesting detail (resources gain extremely high, Afflictions chaining one another, etc.)

Along with the raw data, we would need to collect the players' feedback about the furniture. "Did they find it useful?"; "How the creation price stacked against the utility?"; "If they didn't build it, is there a reason?"; "Did they feel that the furniture completed its stated goal?"

All this kind of questions would give us more insight about the overall balance. Of course, we can't ask about every single furniture at a time, so the questions may be more general. Like the players' favorite object, or their disappointments.

Overall, the data should be looked at, and compared between the furniture. As previously stated, balance does not exist in a vacuum. As such, we need to look for outliers. Objects that are always built, or never. Which we can then compare to how niche they are, and to their concurrent. For instance, it's not surprising to see players build a basic bed, and a fireplace, since sleeping, keeping warm, and eating are the most basic needs to quickly take care of. But, if we see that they never build an upgrade to those, or quickly rush to make one, we can analyze why.

So, slowly but surely, we could tweak the numbers, until the players find the game satisfying, and the furniture build percentage seems balanced enough.

Of course, all of this should be made along multiple sessions, and be considered in parallel to the game progressing, and other furniture being added. In the end, it's impossible to make a perfectly balanced game, so the goal is simply to tend toward said balance, for the optimal player feel.

Another thing to note is that the testing batch should often rotate, if we can. With every test, a player gathers more knowledge about the game and its balance, which will be used for the next test. This ends up with players who have enough experience to make the optimal play, and thus give us data about the best course of action.

But this should be weighed against the game plan of beginners.

Since we are making a survival game, failure is expected from most players. But we still need to gather data about how new players approach the game, and how they progress over time. Indeed, balance is tricky, and a new player won't see the optimal play. Their thought pattern can serve as a base, in order to balance the starting items, and slowly push players toward a winning strategy. Or strategies, even, as adaptability and multiple solutions are the final objectives, since this is a procedural game.

Finally, the player feedback will allow balancing the game around the most difficult axis: The illusion of equilibrium.

More than real balance, we need our player to feel that the game is balanced.

All of the graphics, spreadsheet, and number crunching weight nothing against the players feeling.

As such, gathering their thoughts as a base around which the number would be tweaked is crucial.

So, here you have it.

The mental process that I would use to balance my little furniture set.