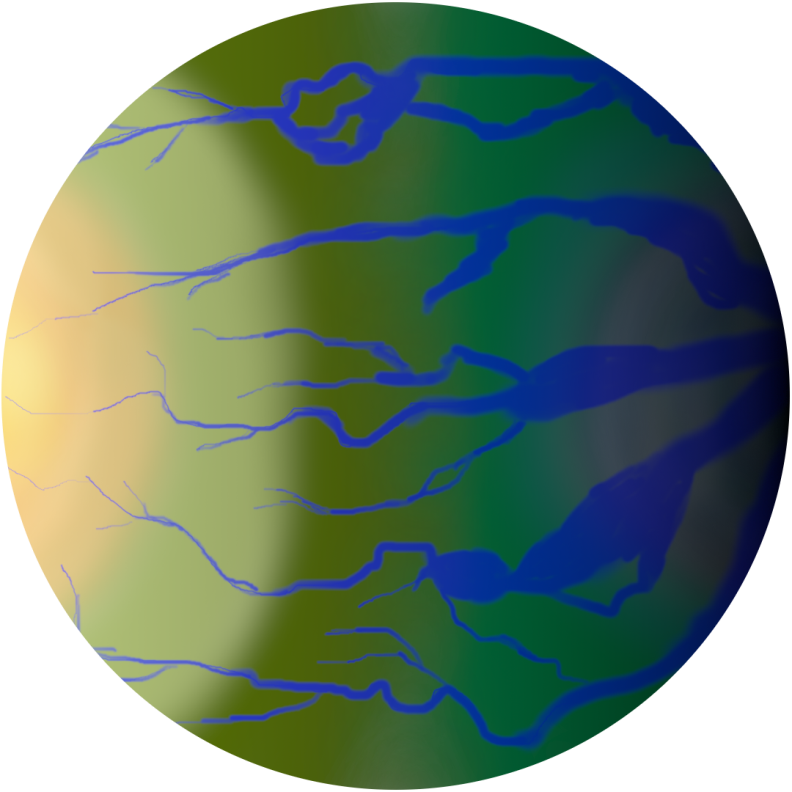
**St Lawrence College Presents**

**Day and Night**

Heroes bounded to a world apart

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**Game design document**

By

Chad Bissonnette  
Meet Shaileshkumar  
Matthew Shea  
Jordan Tuck

Game 103: Introduction to Gaming  
Victor Tilley

**4. Story, Setting and Character**

**4.1. Story and Narrative**

“The Gods have died. Left abandoned by new ways and fallen faith, they have passed on from this world. If there are any of you left that are inclined to weep for them then don’t. You hid your faith and prayers from them while they were alive, you can hide your tears and grief from me now that they are gone. I have not come down from the heavens to console you for whatever you now realize you have lost. As Caretaker of the heavens; I have come to execute the last will of the Gods and divide the power of heaven amoung the mortals of this world.

“To the sun scorched people of the West, the Gods leave you their iron. It is their wish that you will use it to build tools and machines to subdue this inhospitable land and bring bounty and security to everyone. To the Eastern people of the frozen night, the Gods leave you their magic. It is their wish that you will bring enlightenment and peace to the world. In the land between you, the Gods have left all manner of beast, game, harvest, and challenge, so that warriors and farmers alike may prosper. It is the Gods wish that you use these gifts to share and trade with each other for the peace and betterment of all. They hope that in their passing they will finally bring the division of this world to an end.

“I however don’t give a damn and you can all tear yourselves to pieces. You have behaved terribly while the Gods were alive. I don’t expect you to behave any better now that they are gone. You do not deserve their legacy and inheritance. Your fates are in your own hands now, and I will not stand around to watch.

Farewell.”

-Divine servant Grhapa

**4.2. Game World**

**4.2.1. General look and feel of world**

**4.2.1.1 Bhavati :** World (divided)

Bhavati is a world of extremes, based on “[Eyeball planets](https://www.google.ca/search?q=eyeball+planets&tbm=isch)”. There is no day or night cycle so the “West” is a land of unbearable heat and constant daylight. The “East”, on the other hand is a frozen waste land of perpetual night. Life can survive between the two extremes, where the sun is low enough to not boil away the water and high enough to keep water from permanently freezing. These planets are also extremely close to their star and as such the sun would take up a full quarter of the sky.

Weather along the terminator, the border between day and night, would be extreme in every sense of the word. Hurricane force winds of both burning heat and freezing chill would pass constantly over the land. Storms would be torrential downpours or intense blizzards, or perhaps both at the same time dropping monstrous, and lethal, balls of ice from the sky. Towards either ends of the world, the weather will moderate to consistently hot or cold. The rivers of this land would only ever flow from East to West.

The habitable lands to the West would be bordered by salt flats and dunes. The temperature would be always hot and the sky always bright. Beyond this, the land would become unbearable and be dotted with ever more frequent volcanoes. At the edge of the livable area to the East, the temperature is always cold and sky as a deep twilight; technically called astronomical twilight. This region would be bordered by glaciers and snow drifts. Beyond this, would be a deeply frozen glacier marked with Ice Mountains and vast chasms.

**4.2.1.2. Resources and Conflict**

Bhavati is not only a world of divided resources; it is a world of limited resources. All things wear out and food must be regularly consumed. Players must continually forge for more items and food or perish. There are not enough resources in the world for either society to exist beyond subsistence. The Gods wish of each side cooperating and prospering cannot actually happen. If any side wishes to improve themselves it has to come at the sacrifice of the other side.

The Samvartaka have all the physical capabilities and weapons and would typically be considered tanks. The Himikaroti have all the magic and special abilities and would be considered glass canons. A direct confrontation between the two would result in either annihilation or stalemate. Each side requires the resources of the other to gain an advantage. The Samvartaka must acquire magic through trade or battle with the Himikaroti, and the Himikaroti must acquire armour and weapons from the Samvartaka. Only by combining both magic and metal will a player have the capability to defeat the other side.

**4.2.2. Areas**

**4.2.2.1. Upanta**: East/West divide and terminator (the land between)

This is the transition zone between the extreme heat and extreme cold. Farming can occur at either of its edges, but towards the mid-point, the weather and creatures become more extreme and hostile. Permanent settlements at the terminator must be constantly defended or repaired from the giant monsters roaming this territory and abysmal weather that bombards it. This area is predominatly mountainous forest.

**4.2.2.2. Maru:** Western lands (desert)

The western lands of Maru are a desert landscape of constant heat and daylight. The Eastern most vegetation of this region begins as scrub forests and grasslands. Eventually this will give way to cacti and succulents, and finally to barren desert and salt flats at the western habitable limit. Rivers here always flow from East to West and bodies of water become narrower as they approach the desert. The level of light will also increase as players venture westward; changing from late afternoon brightness to mid day brightness.

The temperature will also increase as travelers move from East to West. The Samvartaka have adapted to this land and as such can travel it freely. However a Himikaroti traveling in this area will need protection from both the light and heat. The amount of protection required will increase as they venture more westward. Himikaroti will also find their cold based attacks and defenses less and less effective the more westward they go. Similarly, the creatures of this region will be friendlier to Samvartaka and more hostile to Himikaroties the more westward one travels.

**4.2.2.3. Tusara:** Eastern lands (ice)

The eastern lands a Tusara are a glacial plane of constant cold and night time. The western most vegetation of this area starts as thin alpine forests and shrubs. This eventually changes to patches of wild flowers, weeds, and tundra. The western most edge of the habitable zone is bordered by snow and ice. This area is occupied by many cold deep lakes that are often ice covered. The light of this territory fades from a bright twilight at the western edge to astronomical darkness at the eastern limit.

The temperature also drops as players move eastward. The Himikaroti can travel freely in this area but the Samvartaka will require ever greater protection from the cold, and items to aid their vision, as they travel westward. The creatures of this region will also be similarly immune to the Samvartaka’s heat and physical attacks. As with their counter parts on the western side of the world, creatures here will be ever more hostile to the Samvartaka, and ever more friendly to the Himikaroti, the more eastward they travel.

**4.2.2.4. Out of Bounds Areas** (instances)

The uninhabitable areas of the western and eastern extremes can be reserved for instances and special missions to the races of each side. This means only the Samvartaka have access to special instances West of their origin point, and only Himikaroti can venture to the East of their origin point. These instances can be used to provide unique items for each race and can only be obtained by the opposing side through battle or trade.

To the Northern and Southern map edges, instances and special missions can be accessed by all players with increasing degrees of difficulty toward the terminator, and distance into opposing territory.

* 1. **Characters.**

**4.3.1. Samvartaka**: Western people (people of fire)

Adapted to the heat and exposed light, the Samvartaka (Sams) are tall and dark skinned with deep set eyes. Their easy access to the ground and mineral deposits have made their society develop around mining, metal weaponry, and tools. Because they have abundant light and energy, their sports and recreation are based around physical pursuits. The Samvartaka find strength from fire, light, and the earth. They are weak to cold, darkness, and water.

**4.3.2. Himikaroti**: Eastern people (people of ice)

From long exposure to cold and darkness, the Himikaroti (Hims) are short and fair skinned with large eyes. For them, the ground is constantly frozen and there is no light or heat. They have learned to draw in the natural energy around them and wield it as magic. Their society has developed around learning, and studying the manipulation of magic. Because of the lack of light and heat, their past times are centered on social engagements and storytelling. The Himikaroti find strength from ice, darkness and water. They are weak to heat, light, and earth.

**4.3.3. Divine servant Grhapa**: Servant of the Gods (caretaker)

As a habitual servant and last remaining immortal being in the world, Grhapa feels compelled to stay on and see the Gods final wish completed. If found he will be helpful but complain bitterly about it. He is resentful for the Gods leaving him stuck to finish the job they couldn’t do.

**4.3.4. Denizens of the world** (NPCs)

The inhabitants of world, both East and West, are symmetrical in their rolls and functions. They are only for support of the players and do not provide resources above basic needs and training. Food and items that provide bonuses most be obtained through farming, crafting, battle, or trading. To add newcomers to the game; the population of NPCs at the origin point is greater than further toward the opponents territory. This can be achieved by having NPCs killable by the other side and must be escorted into more hostile territory to replenish lost numbers; spawning only at the origin points.

There can be three classes of NPCs: Farmers, required for maintain fields and providing basic food supplies, Smiths and Crafters to building basic weapons, armour, and items, and finally trainers to aide leveling.

**4.2.5. Mobs of the world** (PvE)

The creatures of the world are primarly to provide basic combat and base material drops. In very rare cases exotic drops can be obtained. But to maintain and interdependence on friendly players, and a source of conflict for opponents, exotic items should be a rare bonus in the wild. To facilitate new players, mobs should be small and weak while at close proximity to the origin point, and grow in size and difficulty towards the terminator (halfway point). Mobs on the opposing side of the terminator will be weaker to players of their side (ie fire mobs weak to Sams) but stronger members of the other side (ie ice mobs stronger to Sams). The only way a player can defeat a mob is to use weapons or magic that originated from the same side as the mob.

**4.2.6. Weather of the world** (PvW)

As players get closer to the terminator, the weather becomes more extreme and deadly. This can take the form of torrential rains or blizzards that damage crops; winds that destroy structures, and temperature changes that can boost or weaken players. Perhaps a mechanic can be created where the weather can be predicted to a certain degree, allowing coordinating attacks, missions, and raids, with the timing of the weather.

**9. Technical**

**9.1 Target Hardware**

The target platform should be the PC as it is still the most popular platform for games. Hardware for the game should include a minimum DirectX 11.2 compatible graphics interface. Developing for DirectX 12 would be preferred; however adoption of this standard still remains low. A 3D sound supported Audio interface is also essential. Minimum requirements for RAM and Hard drive storage of the game should be similar to that of Windows 10 recommended requirements.

**9.2. Development System**

Little has been done in the field of game engine design to support MMO’s “out of the box”. Most modern MMO’s use either a purpose built game engine, or greatly customized version of popular game engines. In that vein, the development platform should be one that is first and foremost customizable. The Unity engine would best suite this requirement as it is not only open source; it also integrates easily with many open sources graphics and development tools.

Regardless of the platform ultimately decided for the client software and interface, it should be noted that an MMORPG will require considerable development on the server side as no premade solutions exist outside of database engines and web servers.

**9.3. Network Requirements**

A highly rendered game with many NPCs, mobs, and real-time weather effects, as well as players, will require a significantly high base bandwidth. It is difficult to tell at this early process of design, but a 5Mbs internet connection seems a reasonable recommended requirement.