Polar Quest At The Mountains of Madness

Nasa Challenge inspired Game on Arctic Exploration with spice

Mário Bernardo de Barros Gomes

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Table of Content

1.   Project Overview

Polar Quest at the mountains of madness is an exploration, survival game inspired on the
Nasa Challenge Polar Quest. The goal of the game is to present real world data
collected by Nasa satellites and landmarks of the Arctic geology and its changing
environment for the exploration and entertainment of the end user. With this
getting the general public to be more understanding and knowledgeable about the
situation in the Arctic and the challenges faced by our prided scientists and
researchers.

The game will make use of NASA's GIBS(Global Imagery Browser Services) to
present the maps of the regions to be explored and researched across the time span
the player's character survives through. The main aspect of the game will be
interaction between the player's equipment, status and the environment in order to
generate events for a more interesting gameplay of the survival genre, along with
information on real world landmarks and interest points(like research bases) that
can be explored and revisited in story or reward driven quests.

The interactions between player and environment include climbing, fishing,
answering to unexpected events, managing supplies, stopping to set up camp and
collecting samples for geological, archeological or biological research. The player
has Health, Warmth, Hunger, Thirst and Sanity gauges to indicate their needs.
Items and supply will be responsible for the satisfaction of those needs and
equipment for preventing changes in them. Items can also increase needs, for
example eating snow decreases thirst but also decreases warmth. Food and drinks
from polluted areas increase a poisoning gauge that affects the player's health and
sanity, possibly increasing hunger and thirst as well depending on the character's
reaction.

Another point of interest for development is, the presentation of the changes in the
Arctic environment and what challenges scientists face to keep track of and
research the past of life, while presenting Lovecraftian eldritch horrors as
antagonists and allegories for the vital necessity of understanding all those aspects
of our past in order to navigate towards a future that avoids as many catastrophes
as possible.

The project is developed by a one man team and will use the Scrum method to
keep track of priorities, and implement in iterations the gameplay aspects and
interactive educational points of interest.

1.1. Project scope

The Scope of Polar Quest is the presentation of the changes in the Arctic environment, both natural and of probable human cause, and the research efforts made by scientists in a game like manner.

The landmarks and exploration will be in Greenland, while the planning and purchase of supplies are made in a port in Iceland.

1.2. Development

In this first version, it is planned to use web and javascript frameworks as the means of user interface, interaction and game engine. The data on GIBS can be more easily manipulated to a user friendly state with available web frameworks and the cross-platform capability is a huge boon in player reach for the final game product.

The interactions between the scientist and real world map being the greatest challenges in making them accurate to elevation, difficulty of the terrain and accessibility.

Interface for user input and travel planning, many different resources to be found and collected, port for resupplying, research goals as quests and survival elements are the priorities for the base functional game.

Interactions with antagonists and atmospheric ideals of horrors hiding in the dark and in the light are desirable future gameplay features.

1.3. Deliverables

A more detailed list of features shall later be produced as the team gets used to the pace and usual time cost of building the blocks that constitute the core structure of the game.

Sprint 1 ?	Sprint 2 ?	Sprint 3	Sprint 4
Working web interactive map from GIBS API.	First steps on how to make the engine understand the land the player will go through.	Introduction of landmarks, points of interest and educational information and links for more information. Player equipment, travel and exploration systems, game goals and field research.	More gameplay elements and interaction with the landmarks. Like the presence of the antagonists and a player progress bar that shows how they have contributed to the long term survival of life (decreasing the influence of the Horrors).