Group Name: Solsteppers

Group Challenge: Planetary Tourism Office

Group Members: Enes Şenbülbül, Yunus Melih Bozcan, Eren Güzelhan, Hüseyin Eker, Eray Atmaca

Our Project: Beyond The Earth Trip

Hello, we prepared a presentation for the Planetary Tourism Office Challenge. In this presentation, we have created a travel booklet task where a group of people will think about the possible future route of a journey and the changes that destinations may undergo. I hope you enjoy reading it.

In the guide we have prepared, we aim to provide people with insights into how those well-known planets will transform within the next century through a futuristic guidebook.

We thought of the Moon as a place primarily for mining rather than for extensive human settlements. The main reason is that making the Moon self-sustaining, like creating an atmosphere or suitable soil for farming, is much more challenging than it would be on Mars. So, we focused on the Moon as a potential mining resource.

However, we also acknowledged its importance to humanity and envisioned the Moon having many tourist attractions and preserved areas serving as museums.

Our next destination, Mars, has always been a planet where humans dream of settling. With enough resources, it's possible to live in underground facilities on Mars. However, to truly make Mars self-sustaining and a place where humans can thrive in every way, we needed to address the challenge of restoring its atmosphere.

By the year 2104, as our guidebook suggests, humanity had been working on this problem. Facilities on Mars were dedicated to making this possible. In an as-yet-unknown way, they turned Mars' core into liquid magma, increasing the planet's magnetic field and thickening its atmosphere. They also engineered bacteria to convert the oxygen within perchlorate ions, which are abundant on the planet, into free oxygen. Additionally, genetically engineered plants capable of growing in Martian soil were developed.

In the end, these two breakthroughs not only increased oxygen levels in the atmosphere but also made the planet self-sustaining through the engineered plants.

Our third destination, Europa, is one of humanity's greatest hopes in the search for extraterrestrial life. We brainstormed about what actions Earth's governments might take if we discovered life there. In the end, we decided to fund research facilities beneath the safer ice layer of Europa, rather than its highly radioactive upper layer. These facilities would focus on taxonomy studies, understanding the mechanisms of life formation, and exploring the unknown. Inspired by the legend of the underwater city of Atlantis, we named this project the "Atlantis Project." We believe that visiting these facilities should be an essential experience for every Earth citizen to witness groundbreaking research efforts firsthand.

Our final destination, the Titan Hotels, serves exclusively for tourism. The incredible capability of private companies to take humanity all the way to Saturn is awe-inspiring and provides us with the means to reach even further. Instead of placing the Titan Hotels on the surface with toxic methane gases, they decided to position them in orbit around the moon. This choice allows visitors to enjoy breathtaking views from these hotels.

Sources:

Perchlorate: https://ntrs.nasa.gov/citations/20190028297

Europa: https://europa.nasa.gov/news/33/europa-a-world-of-ice-with-potential-for-life/

Moon Picture: NASA/GSFC/ Arizona State University

Mars Picture: NASA/JPL-Caltech/USGS July 09, 2013

Terraformed Mars Picture in guidebook(Our Powerpoint File): NASA/JPL-Caltech 2019-09-06

Europa Picture: NASA/JPL/University of Arizona

Mars Magnetic Waves Picture: NASA/JPL-Caltech

Titan Picture: NASA/JPL-Caltech