

**OPERATION GREENSPACE:
A PROPOSAL TO DEVELOP A SERIES OF HOTELS DEVOTED TO PROMOTING
SCIENCE EDUCATION, HUMAN EXPLORATION, AND
ECOLOGICALLY SUSTAINABLE LIVING**

Paul F. Justus*

ABSTRACT

In this paper we propose that “Space Activists” join forces with “Environmental Activists” in furthering mutually shared goals. We believe that there exists a large area of overlap between the two groups. For example, many Environmental Activists dream of developing small ecologically sustainable communities on Earth to help promote a continuously livable planet for future generations. Space Activists, on the other hand, look forward to the development of ecologically balanced habitats for humans on the Moon, at L-5, and on Mars. We suggest that these two important groups work together on a project to promote both goals. This project, we call Operation GreenSpace, would consist of the development of a series of hotels that incorporate the latest “space age” technology for ecologically balanced, resource conserving living. These “GreenSpace Hotels,” designed to simulate a variety of potential space habitats, would have a number of purposes such as: a space exploration and ecology education center, a miniature “virtual reality” theme park, a testing and demonstration site for smart technologies, a neighborhood center, a virtual reality planetarium, a place to explore the interface of computer and biological technologies, a co-housing living quarters for the staff, and a conference and teleconference center for space and environmental activists. Operation GreenSpace should be seen as a “hands-on” project that ordinary people could enthusiastically get behind and take part in its creation. In this paper we maintain that the time for Operation GreenSpace has arrived. Furthermore, the paper suggests that interested individuals form a strategy and implementation team to help formalize and carry out such a worthwhile project

In this paper we wish to make two main points. First we believe that it is time for environmentalists and space activists to realize that they have complementary goals. We believe that by working together these two advocate groups could advance each other’s causes. Secondly, we propose that these two groups work on a project we call “Operation GreenSpace.” Operation GreenSpace is a proposal to develop a series of Earth-based hotels that also function as centers designed to promote science education, human exploration and ecologically sustainable living.

*118 Boles Street, Fayetteville, AR 72701, email: ecoark@hotmail.com

TWO VIEWS, ONE PLANET

In 1969 men walked the surface of the Moon and sent back pictures of our planet Earth against a background of deep space. The very next year, in 1970, environmental activists held the first “Earth Day.” We suggest that the two events were not entirely unrelated. Possibly, these pictures of Earth against the blackness of outer space are the most significant pictures of the 20th century. For the first time in history we humans saw our planet in its wholeness. With this picture many of us began to conceive of Earth as a giant “spaceship” hurling around the sun. Using this analogy, we became aware that the Earth acts as a life support system for all other living species on it. Many of us began to ask how much resource extraction and pollution our home planet could withstand before we jeopardize this life support system.

On the other hand many of us concluded by observing this picture that Earth is part of a vast universe — potentially full of vast resources. We speculated that there must be plenty of minerals on the Moon, asteroids, and other planets. Why not make uses of these resources if things are becoming a bit too crowded here on Earth? Given our intellect, our inventiveness, our technology, and most importantly, our sense of exploration, we realized that we are not limited to living on this planet forever.

Looking at the picture of our home planet from outer space is, in some ways, like looking at the well known half glass of water. Is the glass half empty or half full? Some of us might claim it’s half empty and want to conserve what we have. Others of us may optimistically respond that it’s half full. Let’s drink the water so that we have the strength to look for another glass of water somewhere else. Likewise, when we see our planet from a distance, we might ask a similar question. The environmental activists might respond that it is critical to conserve known existing resources on Earth. Space activists would insist, instead, that we invest what resources we have left for the purpose of exploring places with more resources – the Moon, Mars, and even the asteroids.

Even though these two groups may draw different conclusions about this picture of Earth, we believe that both groups would agree on one major point. What resources that remain on Earth must not be needlessly squandered. Instead, resources should be saved and invested in discovering new resources – especially resources that are renewable and relatively non polluting.

When more than a little thought is devoted to this issue of conservation versus space exploration, we suggest that there is a great deal of overlap between these seemingly opposing views. Certainly there are people in both groups who may never agree. Perhaps a small number of environmentalists hold the position that humans must return to an often romanticized “noble savage” way of life that lives virtually without technology. These people might argue that before we spend money for a colony on the moon or Mars we must first create an ecological paradise on Earth as well as end all human suffering and inequality. On the other hand, perhaps there are a few “space activists” that wouldn’t mind exhausting Earth’s resources as long as some humans can move off the planet, onto other planets and eventually other galaxies. However, we suggest that these viewpoints are extreme and in the minority in both

groups.

More likely we suspect that many people in both groups that see advantages of creating an ecologically sustainable Earth *and* exploring Mars. An effective resource conservation program on Earth saves resources for investment in a healthy space program. Promoting resource conservation on Earth, we could argue, indirectly promotes space exploration.

On the other hand, by investing in the pure research it takes to explore outer space, as most space activists know, there are literally hundreds of spin-off technologies that have been applied to resource conservation and environmental restoration. Just as a small example the space program has provided the following:

- advances in computer technology;
- satellites that track environmental conditions;
- solar-electric cells that provide energy that may, someday, help create a hydrogen fuel cell based energy economy;
- a special paint made from the space shuttle tile that protects houses and buildings from the sun's blistering rays.

We must point out that these “space age” technologies not only reduce the waste of resources and pollution, but also increase our “standard of living.” This is critical because we believe that the majority of people will not adopt a new technology unless it makes their life easier.

OPERATION GREENSPACE

From the above discussion we conclude that environmental and space exploration interests often overlap. Furthermore, advocates in both groups should seek areas of common interest and work together on some mutually rewarding projects. In this paper we would like to suggest just such a mutually rewarding project.

One of the areas of overlap, we believe, is in the development of small-scale human habitats. A growing number of environmentalists are researching and creating small-scale human habitats or “intentional communities” designed to achieve an ecological balance with nature (for example: The Global Ecovillage Network, www.gaia.org). Also, some environmentally concerned people are designing and constructing their own neighborhoods, known as “CoHousing Developments” (for example: The CoHousing Company, McCamant and Durrett Architects, www.cohousing.com). CoHousing neighborhoods strive to be more resource conserving as well as more socially interactive and enjoyable

than conventional subdivision neighborhoods.

We suggest that the long-term space activist goal of establishing a small colony of humans in outer space has much in common with the goal of creating small-scale habitats on earth. A small space colony on Mars would have to develop an extraordinary base of knowledge in order to sustain itself. Not only will it have to develop a sustainable ecosystem; it will have to have a sustainable technological and social system. The initial Mars colonies certainly must be designed to live with very limited resources and develop the ultimate in recycling methods.

We suggest that these two important groups work together on a project to promote both goals. This project, we call Operation GreenSpace, would consist of the development of a series of hotels that incorporates the latest “space age” technology for ecologically balanced, resource conserving living.

These “GreenSpace Hotels,” designed to simulate variety of space habitats including on Mars, might have several synergistic and overlapping features such as:

- A hotel that offers first class service, comfort, and amenities such as a “Martian” coffee shop and restaurant
- A human exploration and ecology education center. This “center” should be open to the general public and act, in some ways, as a neighborhood center for young and old alike to visit anytime.
- A showcase for leading edge technologies provided by corporations. Possibly, the hotel can be seen as a way for companies to advertise their merchandise and might even provide some revenue to the hotel so that a stay will be quite affordable.
- A miniature “virtual reality” theme park — this may include virtual reality trips to Mars and other parts of the solar system. The information in these rides should be as scientifically accurate as possible. Such a “theme park” could include an “I-MAX Theater” that would take an entire group to Mars.
- A testing and demonstration site for “smart” technologies. Some rooms could be reserved to see how people react to a new energy conserving device or technological advance. For example, in a biography about R. Buckminster Fuller we learned that he had invented a way for a person to shower with one pint of atomized water. Would the general public accept such an invention? Why not try it out?
- A virtual reality planetarium. With the latest technology, perhaps our hotel visitors could see the stars in goggles and headsets rather than a conventional planetarium.

- A place to explore the interface of computer and biological technologies. If humans are to eventually develop an ecosystem on Mars they will need to investigate a great deal in this area of research.
- A co-housing living quarters for the staff. Dedicated individuals who want to live a more resource conserving lifestyle *and* educate others may wish to live in a specially designed CoHousing area of the hotel. Many of these people would make up the hotel's staff and work force. The operation could be set up as a co-operative corporation with a relatively high amount of employee profit sharing.
- A conference and teleconference center for space and environmental activists. Very often groups lack meeting space to conduct their activities. The GreenSpace Hotel could have a constant series of conferences, educational seminars, and links to space exploration activities such as tracking the latest developments in a Mars research project. Furthermore, the hotel conference aspect would not only help develop an "Internet" community of space and environmental advocates, but also the face-to-face contact community. We believe that there is still much to be said for meeting each other in the flesh.
- A biological sewage treatment plant. Depending on its acceptability to the local government we suggest that the GreenSpace Hotel pursue "Living Machine Technology" as developed by John and Mary Todd (ref. www.livingmachines.com/)

WHY A HOTEL?

Reportedly an infamous career criminal named Willie Sutton was asked why he robbed banks. As the story goes he replied, "Why, that's where they keep the money!" Why build a hotel to educate? That's where the people are! In many ways the GreenSpace Hotel could act as a "hands on museum" that demonstrates how various technologies work. However, in conventional museums and science centers people only stay there, at most, a few hours. In the GreenSpace Hotel people will be living day and night with these technologies for, possibly, many days.

We believe that a hotel would be more accessible to the common person. Not only can anyone make use of a hotel, but also a large number of people would be involved in its development and operation. One of the problems with the Space Program, we feel, is that the average person can only watch it from a distance. Most of us can only participate by watching shuttle launches on television. Unfortunately, most of us who have space exploration aspirations — who would like to feel a part of a larger community taking the next few steps into the space frontier — must be content with watching Star Trek or buying Star Wars paraphernalia for our children! With the construction of a series of hotels designers, architect, businessmen, construction workers, and housekeepers can feel they are directly

involved in a project that not only promotes space exploration but, also, a cleaner environment.

Another reason to develop a series of hotels is that they can be constructed generationally. Since we would be presenting new technologies the first hotel will most likely have many design and operational flaws. Designers would, hopefully, eliminate the bugs discovered in the second hotel. The third hotel would have even fewer flaws. The hotels would be small enough, about the scale of the average Ramada Inn, that relatively little investment would go into each individual hotel.

If the hotel serves its primary purpose of providing a comfortable and reasonable place to stay, people will continue to come and provide an economic base for Operation GreenSpace. We believe that a business that supports itself is more desirable than relying on grants, subsidies, or membership dues. In this way Operation GreenSpace closely relates the ends and the means. GreenSpace Hotels will expose many travelers, not necessarily interested in the space exploration or our environment, to new technologies and to the importance of human exploration and science research. After visiting a couple of days a casual visitor may go home, purchase a solar operated appliance that she used at the hotel. Then she may call her Congressperson about a particular space program funding issue that she had just learned about at the hotel. If Operation GreenSpace can do this, it will have been a success.

IMPLEMENTATION

The initial implementation of Operation GreenSpace could proceed in different ways. Initial start up funds probably would have to come from grants, membership fees, or venture capital. We are suggesting that the first thing to do is form a strategy and implementation team of interested people. We will begin by meeting on the Internet. From there we will form the best way to undertake Operation GreenSpace. For those who are interested contact the author of this paper.

SUMMARY

We have made the point that space exploration and environmental interests have much in common. Advocates in both areas of interest would not wish to see our Earth's resources needlessly frittered away. Instead we must conserve our non-renewable resources as we develop "space age" technologies that are non-polluting and make use of renewable resources such as solar energy. We can apply the resources we save toward space exploration and the discovery of new resources.

We believe that the development of ecologically balanced small-scale communities is an important area of research— for space exploration as well as on Earth. Consequently, we propose to further this research by developing a series of hotels that promote science education, human exploration and ecologically sustainable living.