

Overview

The purpose of this document is to outline the scenario for use with the Land Ethic case studies. Land ethics are the philosophical guidelines that groups and individuals use to help them determine how land is used. This activity is designed for a high-school science classroom or groups of high-school age or older. The overall goal of this scenario is to help students think about why we use land the ways we do. Ideally, this will help students consider why some parcels of land have been set aside as National Parks or National Forests, while others have been opened to mineral extraction or logging or other private and recreational uses. The overall product from the scenario is a proposed use plan for Grand Staircase-Escalante National Monument (GSENM) in southern Utah.

Introductory Activity

To introduce the following scenario, start by thinking locally. Use the example of a local or state park as the initial focus. Using that example, tell the students the following scenarios:

1. A bird is discovered in the park that is not found anywhere else. The park decides to close the park to reduce the impact on this species.
2. A new deposit of copper is discovered under the park. A mining corporation buys the land where the deposit is found and starts to develop an open pit mine. They will keep areas not affected by mining open to the public during business hours.
3. A local group wants to start a community garden in plots of the park that have been found to have very fertile soil. They require strict rules of those planning on using this shared space to ensure that no one individual negatively affects the rest of them.
4. The park has been approached by a forestry team that wants to use the timber for construction projects around town. They plan to plant enough trees to replace the ones they are harvesting to ensure that they can utilize the resource into the future.
5. The trails in the park have uneven surfaces or other hazards that make it difficult to impossible for individuals bound to a wheelchair or other aids that help with mobility. The department in charge of the park is looking at different ways to revamp or rebuild the trails in order to let everyone access and use the trails.

The students should be asked to think about how those changes would impact them and their use of the park. Then to introduce them to Grand Staircase-Escalante National Monument, using the following video from one of the former Bureau of Land Management Artists in Residence to visually show students the variety of features in this area: <https://www.youtube.com/watch?v=RUYzk172eQ>

Group Assignment and Discussion

Divide the class into 5 groups. Every group will receive a copy of the Introduction Case Study as well as one of the five individual land ethic case studies: Economic, Utilitarian, Libertarian, Egalitarian, or Ecological. The groups will then be given time to read over the two case studies assigned to them, and discuss within their groups. As a group, the goal of the discussion is to

Land Ethics Case Studies: Scenario

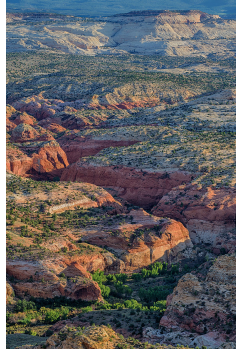
shape a shared position for their Land Ethic. They can develop further pros and cons of their stance, brainstorm examples of where these ethics are seen in the world, how effective they have been in the past, or any other relevant information that they think will strengthen their stance.

Symposium

When bringing the groups together, give each group a chance to present an opening statement, introducing their assigned Land Ethic. Afterwards, allow the groups to discuss openly the merits and risks of using each one of the land ethics, including what sort of resource or land each would be best suited to. It is important to ensure that no one person dominates the symposium, so that all voices and opinions can be heard equally. Additionally, the point of the group discussion is not to prove that one Land Ethic is better than another. Rather, the point is to understand why these Land Ethics exist, why we use them to this day, and a proposed use plan for GSENM. It is important to note that the students are not bound to their assigned land ethics once they begin voting on the plan if another group or student was able to persuade them to another view. In the discussion guide, there are a few lines that are highlighted to show the areas where land ethics overlap to assist students trying to decide how they will vote.

The plan that the students will be voting on will consist of five major aspects of a protection plan, with each ethic having an aspect that is specifically crafted for them. This will allow them to have one choice that they will have to persuade others to vote for. Tying in the land ethics their overlap with can help them figure out what they can negotiate on in order to get the votes that they would need for their part of the protection plan to pass. They will then vote on all five, based on their land ethic, any agreements that were made for votes, and any parts that they felt persuaded on. Their votes can be placed using a set of 5 sticky notes per student. They will only put a sticky note if they agree.

After the symposium and voting for the proposed use plan, if time remains, ask the students put into writing why they were thinking the way they did, what new ideas the symposium sparked, and what parts of the symposium stood out to them in particular.



Grand Staircase-Escalante National Monument Land Ethics Symposium

Grand Staircase-Escalante National Monument (GSENM) is a vast area in South-Central Utah that protects over 1 million acres. Initially designated in 1996 under the Antiquities Act, the monument contains large amounts of natural, cultural, and recreational resources. GSENM is one of 27 National Monuments that the Bureau of Land Management (BLM) is responsible for, allowing more recreational activities than would be possible under the National Park Service's (NPS) mission.

The purpose of the symposium is to get the perspectives of multiple groups who have different perspectives as to the use of the land, and the ethics associated with them. Each group will be asked to work together with each of their members to discuss (1) how the role they represent uses the land, (2) the risks and benefits associated with the land ethic they primarily use, and (3) how their land ethic can work with others. From there, they will be expected to discuss those uses, risks, and benefits, in order to see how these different land ethics can work together for the benefit of all.

They will then be asked to vote on a five part protection plan, based on the results of the symposium. The five parts of the protection plan will be: (1) All collection of plant, animal, fossil, or artifacts will be done by permit only; (2) Cattle grazing is permitted throughout the GSENM area; (3) Areas rich in mineral deposits, such as copper or coal, will be opened for mining, assuming no human artifacts or fossils are found; (4) All for-profit groups operating in GSENM must have at least one person on staff to explain what they are doing to visitors from the general public; (5) Culturally and traditionally associated tribes will retain access to their ancestral lands.

The five land ethics are: Ecological-based, focusing more on the natural order being key; Economical-based, focusing more on human industry; Egalitarian-based, focusing on equal access to all portions of the land; Libertarian-based, focusing on individual freedoms with the land; and Utilitarian-based, focusing on the most efficient and sustainable ways to use the land.

Quick Resource Facts about Grand Staircase-Escalante National Monument

Area Protected: 1,003,863-1,880,461 acres

Land Management: Bureau of Land Management (BLM)

Natural Resources

- Numerous fossil locations
- Rocks ranging from oldest in Grand Canyon to youngest at Bryce Canyon
- Rivers, creeks, and water pockets
- Unique habitats

Cultural Resources

- Artifacts and structures from Ancestral Puebloan and Fremont Culture groups
- Artifacts and structures from European settlers
- Land sacred to Native tribes

Economic Resources

- Minerals: Coal, Copper, Gravel, Limestone, Gypsum
- Lumber: Pinyon-Juniper, Cottonwood, Aspen, Pine
- Cattle-grazing
- Tourism: Tour buses, hiking guides, river guides, canyoneering guides, Jeep/off-road guides
- Hunting: Elk, Mule Deer, Pronghorn, Black Bear, Desert Bighorn Sheep

Current Restrictions

- Fossil and artifact collection without permits is not allowed
- Overnight stays require permits
- Fire restrictions may affect the ability to have open fires
- Hunting and Fishing requires proper licenses and permits
- Mining and Lumber only in approved locations

Sample Roles

Below are some examples from each of the five land ethics of roles students can play in order to better center themselves in the role. Keep in mind, while many, if not all roles have aspects of any of the five land ethics, they are grouped under the one they are most closely associated with.

Ecological

- National Park Service Representative
- Fish and Wildlife Service Representative
- Sierra Club Representative
- Utah Department of Natural Resources Representative
- Nature Conservancy Representative
- Worldwide Fund for Wildlife Representative
- Southern Utah Wilderness Alliance Representative

Economic

- Coal Mining Company Representative
- Logging Company Representative
- Travel Resort Company Representative
- Gas Drilling Company Representative
- Tour Bus Company Representative
- Hiking/Canyoneering Guide Company Representative
- Tourism Board Representative
- Politician

Egalitarian

- Photographer
- Artist
- Advocacy Group Representative
- School District Representative
- Girl/Boy Scout Troop Leader

Libertarian

- Neighboring Rancher
- Representative of Neighboring Community
- Representative of Local Business Affected by Access
- Tribal Council Representative
- Relatives/Descendants of Private Landowners In GSENM

Utilitarian

- US Forest Service Representative
- Bureau of Land Management Representative
- Utah Department of Transportation Representative
- Scientists
- Hunting Organization Representative

Discussion Guide

This guide contains five main points from each of the case studies to help shape the discussion if the groups are stuck on what to say. The color codes show similar points across land ethics.

Ecological

- Focus is on putting non-monetary value to natural resources
- Promotes natural systems working without human interference
- Little to no pristine wilderness left
- Humans still interfering by enforcing “natural” order
- Restricts other uses of the land

Economical

- Requires the least outside money because the purpose is profit
- Done properly, prevents long-term harm to resource to protect investment
- Overharvesting leads to the need to search for more sources of the resource
- Can negatively impact the profitability of other economic ventures
- Leads to monetary values being forced onto everything

Egalitarian

- Ideally supports everyone having the same access to resources
- Can justify the preservation of natural spaces and resources through access to those
- Justifies prevention of damage to natural spaces because it restricts everyone’s access
- People in positions of power can break the ideal, hindering access to certain groups
- Connections to unpopular philosophies

Libertarian

- Recognizes multiples ways to manage land, both individually and communally
- Concern for how use of land impacts those surrounding any individual
- Seeks to remove influence of individuals wanting to force or coerce others against their wishes
- By being unmanaged, individuals can exploit cooperators and resource
- Individuals can exploit resource on their own

Utilitarian

- Largest number of people positively affected
- Lowest number of people negatively affected
- Works ideally, but not always in practice
- While neighbors try to avoid negatively impacting each other, sometimes can harm unintentionally
- Supports the status quo, because it has provided a positive benefit in past, as compared to unknown which might not

Land Ethics Case Studies: Scenario

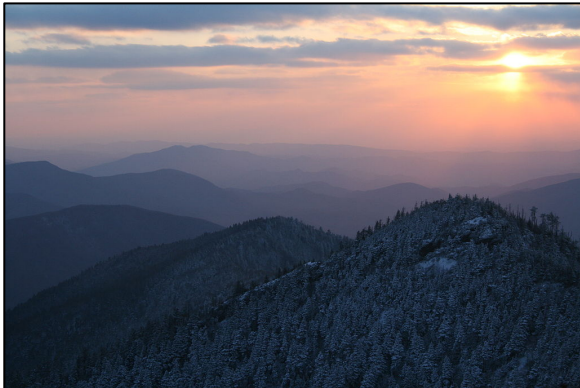
Rubric for Discussion

	Advanced	Proficient	Developing
Presents introduction with main talking points of risks and benefits	Covers at least one main talking point and includes several other examples	Covers at least one main talking point	Does not cover at least one main talking point, or does so after prompting
Discussion points aligned with assigned land ethic	Contributions align well with assigned land ethic	Contributions mostly align with assigned land ethic	Contributions do not align with assigned land ethic
Overall contribution to discussion	Contributes significantly without prompting, works well within and between groups	Contributes without or significantly with prompting, works with group and between groups	Does not contribute significantly with or without prompting, lacks working with group
Fielding questions	Successfully answers clarifying questions appropriately and is able to use them to ask clarifying questions of their own	Able to answer clarifying questions appropriately and finds connections	Has difficulties answering clarifying questions and answering appropriately

Land Ethics Case Studies: Ecological

Ecological-based land ethics is the youngest of the five, with the concept only truly being cemented and put into words by Aldo Leopold in his book, *A Sand County Almanac* in 1949. Unlike the other land ethics, ecological-based land ethics do not focus heavily on human-centered concerns. Rather, the focus is more on giving intrinsic, or natural, value to the land and organisms.

One of the missions of the National Park Service is supporting ecological-based land ethics. The United Nations Educational, Scientific, and Cultural Organization follows this ethic when it comes to the selection of World Heritage Sites. Additionally, there are many not-for-profit organizations that support ecologically-based land ethics, such as the World Wildlife Fund, the International Union for Conservation of Nature, and the International Society for Environmental Ethics.



Great Smoky Mountains National Park and World Heritage Site

Before Leopold

Humanity has always wondered about its place in the universe and on earth. One extreme of this is that humanity has complete and utter domain over nature. This side thought that nature was there for humans to do anything with. The other extreme is that humanity is like a virus, destroying the earth.

The person who drew the most attention to this discussion was Alexander von Humboldt. However, the conversation did not end with him. It continued as scientists, philosophers, and the general population

continued to contribute observations about what they were seeing as effects on the land.

Ayers Brinser was one of the latest before Aldo Leopold to look at and describe an ecological-based land ethic. In his book, *Our Use of the Land*, he looked at how the natural systems have changed in the United States. According to his work, settlers and Western civilization treated the land like coal in their furnaces, using it for every bit they could before moving on.



Twin Creeks Open Pit Gold Mine, Nevada

A Sand County Almanac

From an early age, Aldo Leopold showed an interest in observation and being outdoors. This interest was supported by his father, who would bring his children into the woods on excursions. In 1900, Pinchot, the chief forester for what would become the United States Forest Service, helped to develop a forestry program at Yale University. When Leopold heard of this development, his parents did everything they could to help him get in, and further encourage his love of the outdoors.

After completing his graduate degree at Yale, he was assigned to District 3 of the Forest Service, where his main task was the hunting and killing of big game predators such as bears, wolves, and mountain lions. From there, he was transferred within District 3, from Arizona to New Mexico. While in Arizona, he would further develop a respect for the animals he had to hunt, and

Land Ethics Case Studies: Ecological

the beginnings of his ecological-based land ethic. This culminated in projects such as a comprehensive management plan for the Grand Canyon, the first fish and game Handbook for the Forest Service, and helping to propose the Gila Wilderness Area.

Those years with the Forest Service would lead to Leopold changing his personal ethic from a human-dominated wilderness ethic to an ecological one. This would help to lead to his rethinking of how important predators are to the ecosystem. Further still, that led to the return of bears and mountain lions in New Mexico wilderness areas.



Aldo Leopold

In the 1930's he had further developed his concept of wilderness and land ethics, to include healthy biotic communities or ecosystems. He gathered these thoughts, and more into his posthumous work, *A Sand Creek County Almanac*, where the concept of land ethics were finally put into words, and many of them were popularized.

Benefits

Unlike the other land ethics, ecological-based ones focus more exclusively on non-human interests, and puts non-monetary values on them. This promotes natural systems working as they should with minimal human intervention. This land ethic seeks to preserve wilderness areas for the enjoyment of all people. Preserving wilderness helps to protect species that are unique to a region, potentially bringing pride of being one of the few places to see that species. These range from tiny insects only found in specific underground lakes in a single cave up to massive aspen colonies.



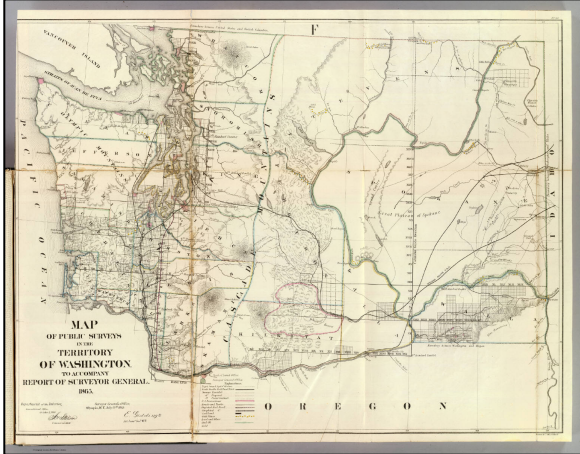
Pando, the largest aspen clonal colony known, Fishlake National Forest, Utah, 2018

Risks

One of the major risks associated with the ecological-based land ethic is that by managing it using scientific methods, humans are still interfering with the natural system. Another risk and issue is that there are few places that have been untouched by humans, so the concept of wilderness may no longer exist. Lastly, ecological-based land ethics restrict other uses of the land, to promote the natural systems.

Land Ethics Case Studies: Economic

Economic-based land ethics are about as old as the concept of currency and, more important, industry. Economics seeks to assign a numeric value of worth to almost everything. In land ethics, this means assigning an economic value to plants, animals, water, minerals, and even air. This, alongside Utilitarian-based land ethics, were the most common in the 19th and 20th century.

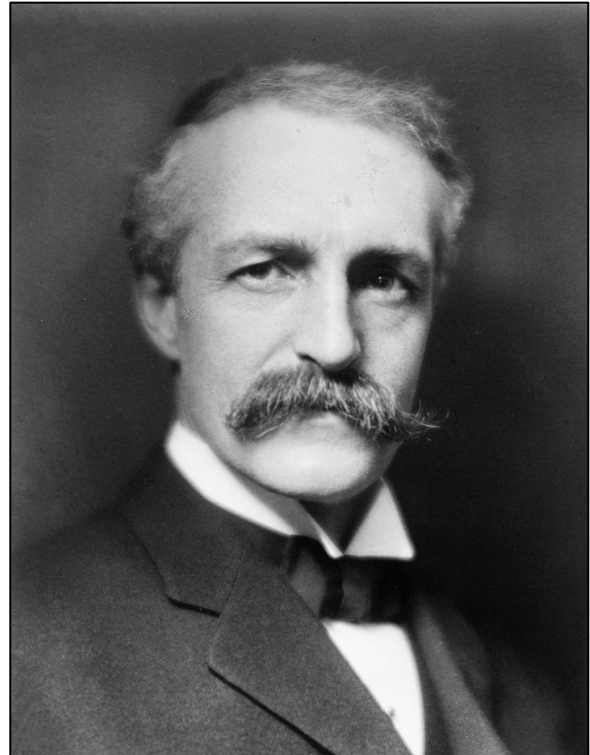


Example map of Washington from the General Land Office ca. 1866

Many companies already subscribed to this land ethic as their main goal was economic gain. A few government agencies existed that also subscribed to economic-based land ethics due to their missions. Those agencies included the Bureau or Division of Forestry - which would later become the United States Forest Service (USFS) - General Land Office, and the United States Grazing Office. The General Land Office and the United States Grazing Office would later be merged to form the Bureau of Land Management.

The General Land Office was the agency responsible for selling land under the Homestead Act. Once the land it had remaining was set aside for other public uses, their mission changed to leasing land for grazing and mineral extraction. Due to the overlapping mission with the Grazing Office, the Bureau of Land Management

was formed to manage grazing and mineral extraction leases.



Gifford Pinchot ca. 1909, as first Chief of the USFS

Gifford Pinchot: Conservation

Gifford Pinchot is best known as the first chief of the US Forest Service, and was steeped in conservationism from a young age. His education furthered his interest and training in conservation forestry, attending programs at Yale University and the French National School of Forestry. Upon his return to the United States, Pinchot became involved with groups that aligned with his conservation mindset, such as the National Forest Commission and the Boone and Crockett Club. The National Forest Commission brought him in contact with President Grover Cleveland, who would ask him to help develop a management plan for the United States' forests in the west, and further help catapult him to the office of

Land Ethics Case Studies: Economic

Chief of the Division of Forestry, first under McKinley, then under Theodore Roosevelt.

Pinchot's focus, as Chief Forester, was to maximize the life expectancy of the forests, so that harvest for timber could continue indefinitely. His methods focused on the commercialization of the resources under his management without depleting them. Despite initial support under Theodore Roosevelt, Pinchot found himself at odds with Taft, who pushed for quicker access and deforestation of the land.



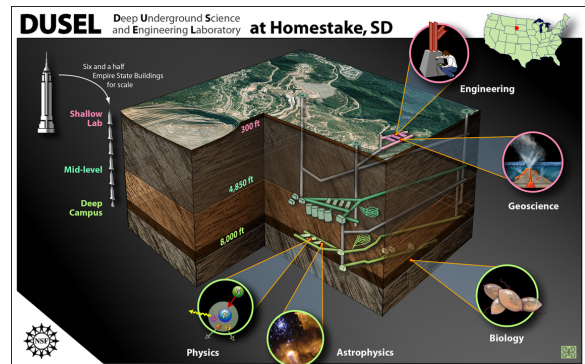
USFS Employees inspecting timber harvest

Benefits

When done properly, economic-based land ethics can be useful. Since the mission is to ensure sustainable and sustained harvest of resources, the private companies or government agencies will make sure not to harm their investment. Since their mission is to make money off the resources they manage, they require less outside money. With different rules and regulations, they open up areas that can withstand recreational use. In some cases, the land can be repurposed to scientific money-making endeavors.

The Sanford Underground Research Facility (SURF) was constructed in portions of the Homestake Mine in Lead, South Dakota. The Homestake Mine, was the

deepest and largest shaft mining operation in North America, producing approximately 44 million ounces of gold. The National Science Foundation, along with multiple research universities, invested in the mine to start research endeavors. This research, in turn continues to bring grant money into the area. In other words, economic-based land ethics can also include scientific experimentation in an area.



Proposed Layout of the DUSEL/SURF Lab, 2009

Risks

Most of the risks that come from economic-based land ethics stem from over-harvesting of resources. Completely clear-cutting a forest makes it so that new trees are less likely to grow, disrupts hunting by driving animals out, and can cause economic damage via landslides or flash floods. Introduction of poisonous chemicals from mining increase the costs of water treatment and medical treatment. Overhunting and fishing leads to the cost of getting new stock to continue providing revenue. This land ethic also forces humans to put a monetary value on everything, which can be next to impossible.

Land Ethics Case Studies: Egalitarian

Egalitarianism is, simply put, the thought that all humans are fundamentally of equal worth. Applying this to land ethics, means that all humans deserve equal access to the resources on the land, as well as the land itself. This also means that someone needs to provide this access. This can be an individual, company, or government.



Glacier National Park

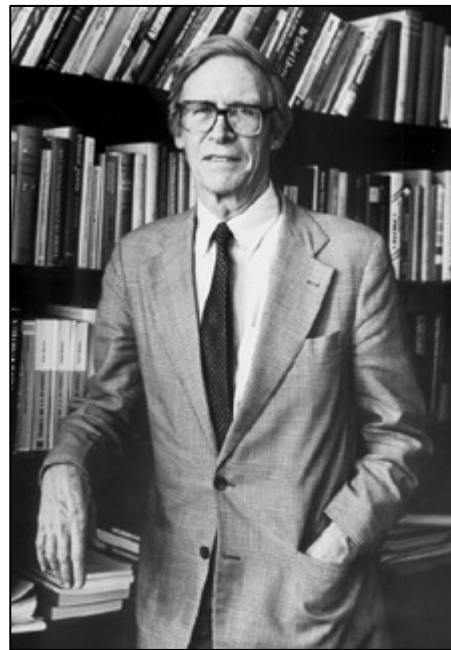
The best example of egalitarianism in principle are the different levels of park systems throughout the world and in the United States. These lands are supposed to be open to every single person that wants to visit them. This does not mean that any individual has the right to abuse the resource or restrict access to others. The other side is that those park systems also subscribe to ecological-based land ethics. This, however, opens up egalitarianism to more than just human interests.

Philosophical Origins

Like libertarianism, egalitarianism has origins in philosophy, having been co-opted into land ethics relatively recently. Like economics and utilitarianism, egalitarianism itself has existed as long as the idea of inequality.

Where libertarianism focuses on individual freedoms, egalitarianism seeks to develop and promote overall freedom for all people, as well as access to those freedoms.

The French Revolution served as a catalyst for more organized study and philosophizing of egalitarianism, with many who advocated the philosophy either coming directly from France or being inspired by the French word “égalité” as part of the motto used in the revolution. Prior to the Environmental Movement, the rising philosophies were tied to egalitarianism, such as Marxism, socialism, and communism. These connections as well as the rise of the Environmental Movement, brought land ethics into the philosophy of egalitarianism.



John Rawls from the Harvard Gazette

Post-Marx Developments

Following the rise of socialism and communism in Europe, and after the end of World War II, there was an increase in the number of individuals who were studying the concept of egalitarianism. One of the most prominent Americans to do so was John Rawls.

John Rawls is best known for his three works on the subject of egalitarianism: *A*

Land Ethics Case Studies: Egalitarian

Theory of Justice; Political Liberalism; and The Laws of Peoples. In *A Theory of Justice*, he develops the idea that the “original position” of humanity is not what Thomas Hobbes suggested, as savage and self-interested. Rather, Rawls suggested that because of what he called the “veil of ignorance,” that prevented the governing individuals from knowing the demographics of the population they were representing. Due to the nature of the individual’s ignorance about who they themselves are, as well as those they represent, proposing ideas that negatively affected any singular group would be irrational. This is possible because the individual would not know if they were part of the group being placed at a disadvantage or not.

Rawls would expand this concept and its effects on a global scale. As he continued his work, he inspired many after him, including those who would come to the conclusion that egalitarianism could apply to non-human rights as well as human rights.



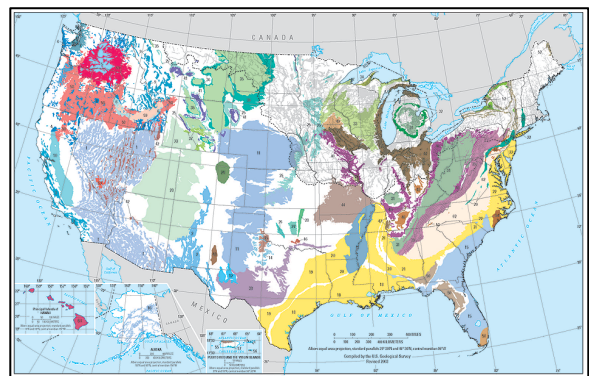
Confiscated Elephant Tusks on display, Nairobi National Park, Kenya 2015

Examples range from the poaching of animals like elephants for their tusks to the effects of agriculture and timber harvests in the Amazon rainforest. In other words, the concept of egalitarianism can stretch

beyond just human concerns to those of the natural world.

Benefits

Egalitarianism is, at its base, an ideal that supports everyone having the same freedoms and access to resources. Another way of saying this is that no one is denied access to resources, or that any one group has the ability to restrict access to or damage those same resources. Since this can also extend to the natural world, the land ethic can justify the preservation of natural spaces and resources by linking those to access to those spaces and resources.



USGS Map of Aquifers in the United States

Risks

While ideally, scenarios can be justified where those in positions of power will choose not to favor or hinder certain groups, that is not currently how things commonly occur. Further, the reputation of connecting philosophies, like communism, socialism, and animal rights, have made the idea of supporting egalitarianism in the United States more difficult.

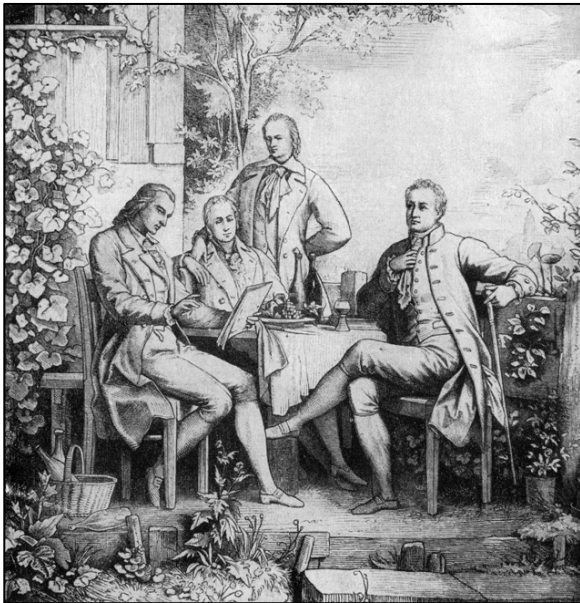
Land Ethics Case Studies: Introduction

Land ethics is a concept that is relatively recent, coming about shortly after Aldo Leopold's posthumous book *A Sand County Almanac*, put a name to it in 1949. However, his ideas were influenced by many others before him. One of the first to publicly think about and describe how humanity's use of land affected the earth was the German explorer Alexander von Humboldt.

A New World

Alexander von Humboldt was always interested in travel and exploration. Prior to the start of the 19th century, most of his travel was confined to the parts of Europe friendly to Prussia and not embroiled in war. However, after his mother's passing, he had money available and no longer "felt caged" by obligations, leaving for France.

Once in France, he searched for any expedition that would have him but had no luck due to the escalating conflicts spiraling from the French Revolution.



From left to right: Friederich Schiller, Wilhelm and Alexander von Humboldt, and Johann Wolfgang von Goethe in Jena, Thuringia ca. 1797

He and a colleague eventually found themselves in the court of the Spanish King Charles IV. Spain was interested in getting a better understanding of what its colonies

in the New World had to offer the crown. Humboldt requested to join the expedition, offering to finance his own way. Once the King accepted, Humboldt would be able to set out on a journey that would change how we look at humanity's place in the world.



King Charles IV of Spain, ca. 1789

He departed on his trip later in 1799, leaving for the Spanish colonies. There, he made notes on the vast assortment of plants and animals he observed. However, one observation among the vast collection stood out for those who followed him and would help to influence what we know of today as the concept of land ethics.

After departing Spain, the expedition arrived in Caracas, the capital of modern day Venezuela. Along the route to Lake Valencia, Humboldt noticed how deforested the land was in populated areas. Once they arrived at Lake Valencia, the locals informed them of their concern about the dropping levels of the lake, exposing more land, but with less water available for crops. They thought the water loss was due to an

Land Ethics Case Studies: Introduction

underground river that was draining the lake.



Satellite Photograph of Lake Valencia, Venezuela ca. 2004

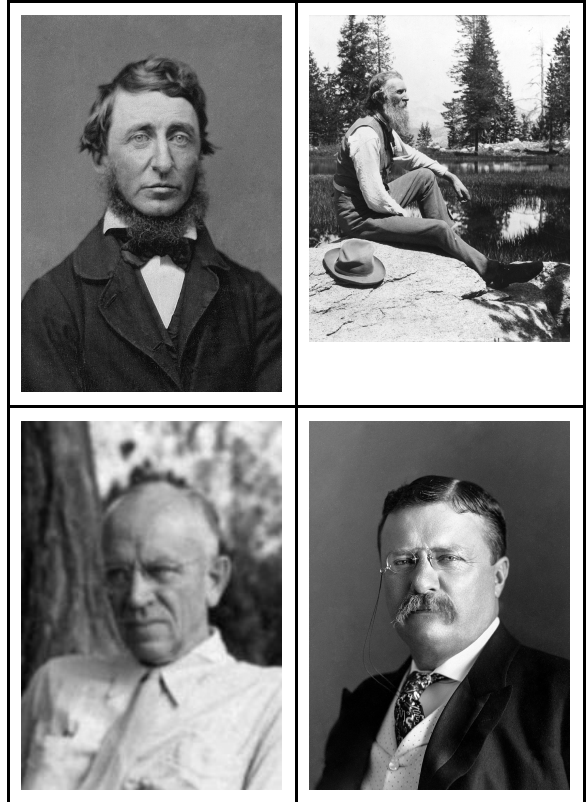
What Humboldt determined was more concerning and problematic

for those farming in the area. On his return to Europe, he would write the following:

“When forests are destroyed, as they are everywhere in America by the European planters, with an imprudent precipitation, the springs are entirely dried up, or become less abundant. The beds of rivers, remaining dry during a part of the year, are converted into torrents, whenever great rains fall on the heights.... the waters falling in rain are no longer impeded in their course: and instead of slowly augmenting the levels of the rivers by progressive filtrations, they furrow during heavy showers the sides of the hills, bear down the loosened soil, and form those sudden inundations....”

What he describes is much like the flash floods the desert Southwest of the United States experiences - damaging stormwater that can carve paths that funnel water into rapid speeds, with no true outlet. The trees and shrubs had initially helped to trap the

water in the soil and made the surrounding area fertile. Over the rest of his travels, he noticed the pattern of how human influence affected nature around settlements replay multiple times. His reactions and comments on the matters inspired others to think about our place in nature, in a variety of ways.



(Clockwise from top left) Henry Thoreau ca. 1856, John Muir ca. 1902, Theodore Roosevelt ca. 1904, Aldo Leopold ca. 1946

Nature Movements in the U.S.

When we think of people who influenced the discussion about natural places in the United States, there are a few names that always come to mind: Henry David Thoreau, John Muir, Theodore Roosevelt, and Aldo Leopold. Even though they all influenced the discussion of humanity's place in nature, they had different views.

Henry Thoreau is best known for his books such as *Walden*, assorted poetry, and his statements on nature. However, even though he promoted and supported

Land Ethics Case Studies: Introduction

conservation of resources on private land, and the setting aside of wilderness as public land, that was not his preference for land use. His ideal type of wilderness was pastoral, “partially cultivated country.” In fact, after traveling through the pristine wilderness of Maine, he was thoroughly convinced that nature and humanity needed to have a balance. In other words, he felt that nature and humanity should coexist, without one being more powerful than the other.



Walden Pond, ca. 2010, where Thoreau spent most of his time outdoors.

John Muir, on the other hand, took another approach. Muir was of the opinion that all land should be left wild, that no human being deserved nature.

However, he also believed that nature was the perfect “temple” in which to relax, recuperate, and reconnect spiritually. His focus was to bring people to these natural places and to let them roam free.

Theodore Roosevelt’s presidency saw the formation of the United States Forest Service, five new National Park units, and many other federal public lands. In the national forests, his agenda was the sustainable development of economic resources. In national parks and monuments, he wanted to preserve those lands for cultural and natural resources. But primarily, he still considered the land economically. Further, his concept of

conservation, at least for wildlife, included some degree of taxidermy, rather than letting them live in their natural settings.



Political Cartoon of President Roosevelt ca. 1908, outlining his stance on forests.

While Aldo Leopold is listed last, the reason is certainly not because he is the least influential. In his posthumous book, *A Sand County Almanac*, Leopold looks at this concept in depth by enlarging the idea of what community is to “include soils, water, plants, and animals or collectively: the land.” His particular branch of land ethics was for the ecologically based land ethic, but he shed light on all branches: economics; utilitarian; libertarian; egalitarian; and ecological.

These five branches represent the major schools of thought about how land should be used, and how humans should interact with nature.

Land Ethics Case Studies: Libertarian

Libertarian-based land ethics, like utilitarian and egalitarian, are more philosophical ways of looking at the use of land. The most generally accepted definition is that individuals are responsible for themselves and have certain natural rights, such as land ownership. Essentially, each person should be able to get as much liberty in their decision making as they want, as long as it does not negatively impact the ability of others to do the same.



Grant-Kohrs Ranch National Historic Site

Libertarianism is not typically a factor for government entities, but is common for private individuals. How the resources are distributed, managed, and used depends on whether the person believes that those resources should be privately owned or have shared ownership. Most who follow the libertarian ethic in the United States fall into the category of supporting private ownership of land, resources, and infrastructure. In other countries, libertarianism supports communal or cooperative ownership by a group, typically shunning private ownership.

Tragedy of the Commons - Origins

William Forster Lloyd was a British economic theorist and author who was active during the mid-1800s. He is best known for his *Two Lectures on the Checks of Population (1833)*. This lecture is where the concept of the “Tragedy of the Commons” originates. At the time in the British Isles, there was a shared grazing allotment in many smaller villages, known as a common. He came up with a hypothetical situation where one of the individuals allowed more than their allotted

number of livestock to graze. In the scenario, he stated that no matter if the grazing land was shared or not, there would be a deduction in what was left to graze. The difference was whether the land was for use by the individual in question or shared. If the land was the individual's that deduction would only be a cost to them. Otherwise, that cost would be shared by the others.



Cows grazing on a commons in Selsley, England, June 2007

Tragedy of the Unmanaged Commons

While William Forster Lloyd came up with the basis of the idea of the “Tragedy of the Commons,” Garret Hardin coined the term in 1968. He focused on population growth as his “tragedy.” His thought that was required to solve the issue of overpopulation was that the natural sciences should change what techniques are used rather than changes in values or morality. In his hypothetical situation, issues such as overpopulation should be self-solving, with death of children from starvation being the ultimate punishment. Further, he thought that in situations of shared resources, the resource would be used up. He believed this would happen because even when all individuals sharing the resource were acting in rational self-interest, there would be individuals who would abuse the conscience driven regulation. He stated that altruism would always be selected against in

situations where conscience was the driving factor of decision making.



Garret Hardin, 1986 from The Garret Hardin Society

All of this made him conclude that the reason for the tragedy in the first place was the fact that the commons were shared and not necessarily managed. Thus, the commons needed to be managed in some manner, because the freedom to manage the land in question could be replaced with other freedoms.

Benefits

Libertarian-based land ethics recognizes that there are multiple ways to manage the land, both individually and communally. There is also the concern for how the use of the land affects those around the individual, even if the emphasis is on the individual. Egalitarianism is a key factor of libertarianism, meaning that all are held equal in the eyes of this ethic. Management can be decided by the individual as long as the decisions do not negatively impact those

around the decision maker. Lastly, it seeks to remove the influence of individuals seeking to force or coerce others to behave in a way that is against their wishes.

Risks

One of the major risks is the “Tragedy of the Unmanaged Commons.” By being unmanaged, individuals could exploit not only their cooperators, but also the resource. Conversely, even individual management can lead to problems with the resource or land. The best historical example of this is the Dust Bowl in the southern plains of the United States.



Farmer in Oklahoma during the Dust Bowl, ca. 1936

To keep up with demand, farmers needed to produce larger harvests by converting more prairie land to farms. With the onset of a drought in 1931, the barren fields were not able to hold the soil in place like the deep-rooted prairie grasses they had replaced resulting in massive dust storms and economic devastation.

Land Ethics Case Studies: Utilitarian

While Utilitarianism has many variations, the most commonly used view is doing the most good for the largest number of people is the right thing to do. Due to this general philosophy, utilitarian- and economics-based land ethics are usually paired. However, there are times when they are at odds.

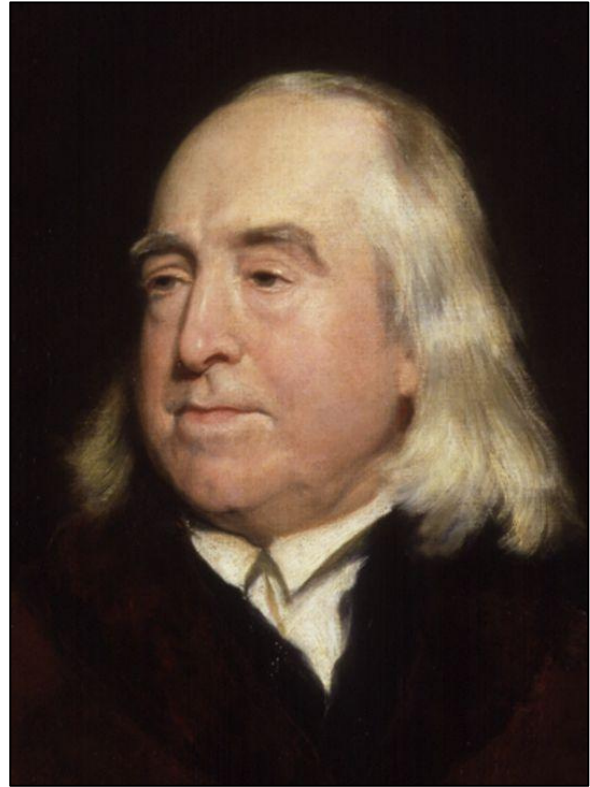


Fleet of combines on an industrial farm

A useful example of how Utilitarian-based land ethics can be both for and against economic-land ethics is industrial farming. Economics and utilitarianism would argue that producing larger yields of crops would make the most sense. However, an economics ethic would focus on the profit being as high as possible from the harvest. Utilitarianism would make sure that the most people would benefit from the use of the land. For instance, while more resources are being produced, easy access for more people would be favored over an individual making large profits. Further, if the individual was harvesting resources in a way that negatively impacted others, that harm outweighs any benefits.

Utilitarian-based land ethics are harder to see in action, but are often part of the decision-making process of some entities. One of the best examples of a resource where utilitarian-based land ethics come into play are caves. With any cave, there's the constant struggle and debate of how much should be open, what should be closed, and whether more exploration should be done. The more of the cave that

is opened up for anyone to enter, the more damage comes from use and human interactions. The more of the cave that is closed, the less accessible it is for anyone to see.



Portrait of Jeremy Bentham prior to his death in 1875

Origins of Utilitarianism

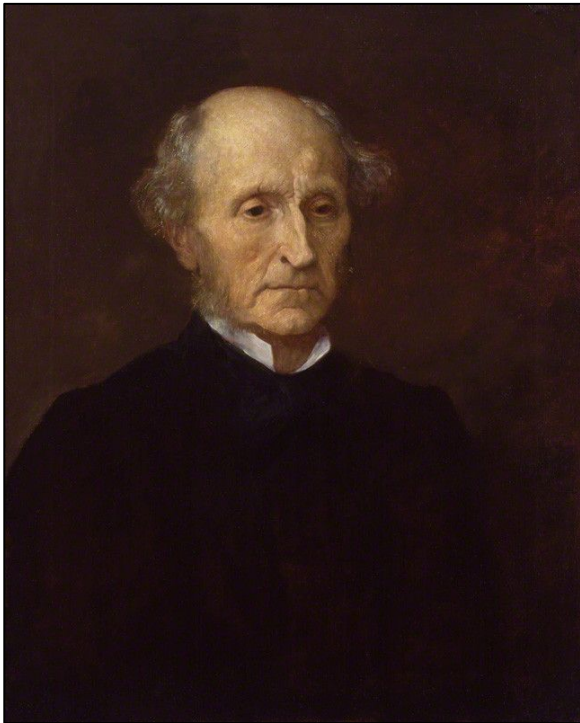
When Jeremy Bentham was active, much like Humboldt, Europe was in a time of social upheaval with many questioning the authority of the privileges of the ruling class. Gathering together works from philosophers before him, Bentham set out to create what he called the "Pannomion," a complete code of all utilitarian laws. He believed that all human actions could be explained by two simple factors: pain and pleasure. However, his ideas were received with mixed reactions, due to the fact that many felt his pain/pleasure drivers took away both natural rights of humans, and endorsed activities like torture. One of his students, John Stuart Mill, would take the idea that society should

Land Ethics Case Studies: Utilitarian

strive to do the most for the greatest good for the largest number of people.

John Stuart Mill

John Stuart Mill's father, James Mill, was also a utilitarian thinker, and so his thoughts were shaped from a young age. Another prominent influence was Bentham, however Mill saw some problems with his "greatest-happiness principle."



John Stuart Mill ca. 1873

While he agreed that humans should morally choose the action that increases the overall pleasure or happiness of the world, he wanted to expand on Bentham's ideas. He thought that not only would people choose the decision that would generate the most pleasure or happiness, they would tend to choose the action that has given them the most pleasure in the past.

Benefits

The most obvious benefit from the utilitarian-based land ethic is the fact that the largest number of people can be

positively affected. Ideally, following this ethic prevents one person from exploiting not only other people but also the land itself. Ideally, the decision-making process should be easier, because the best answer is always the one that benefits the greatest number of people. To make the point stronger, this ethic can also mean that the smallest number of individuals are negatively impacted. In fact, in an ideal situation, the action that would cause the greatest benefit would also be the one that causes as little pain or risks as possible.

Risks

A lot of the statements in the benefits sections included a key word, "ideal" or "ideally." While in most scenarios, humans will not go out of their way to inconvenience their neighbors, they might unknowingly do something that damages or otherwise hurts their neighbor. An example is industrial farming, especially with "trademarked" plants. The initial intent for these genetically modified plants was to provide better quality crops that are more resistant to conditions not favorable to maximum harvests. However, with neighboring farms not being able to control how pollen spread, the benefit of larger harvests was outweighed by the cost of those smaller farms being shut down or taken over as the copyrighted plants spread.

A final risk draws heavily from Mill's take on Utilitarianism: status quo. If the individuals responsible for making the decision always choose an action that has previously given the most pleasure, they might not be willing to take a new action because it will be assumed that the other action will give the most pleasure. These ruts can lead to even more dangerous and costly effects based on consumption of resources.



Sierra Club
123 Any St
Anytown, USA 12345

[Recipient Name Here]
456 Decision Ave
Hometown, USA 67890

Greetings;

This letter serves as an invitation to a symposium that the Sierra Club will be hosting about the future of Grand Staircase Escalante National Monument. We are inviting groups representing all those who would use the land in an attempt to better understand the complex issues surrounding the protection of the land.

You have been invited to represent your [organization, company, agency, -self] in this round-table. Your presence allows us to ensure that all points of view will be heard.

The symposium is scheduled for [insert date here], at [insert time here]. We ask that you have an introduction prepared for the way you use the land, introducing the land ethic you primarily use, and the benefits and risks of that land ethic.

We will then vote on a five part protection plan for the national monument. The five parts of the protection plan will be: (1) All collection of plant, animal, fossil, or artifacts will be done by permit only; (2) Cattle grazing is permitted throughout the GSENM area; (3) Areas rich in mineral deposits, such as copper or coal, will be opened for mining, assuming no human artifacts or fossils are found; (4) All for-profit groups operating in GSENM must have at least one person on staff to explain what they are doing to visitors from the general public; (5) Culturally and traditionally associated tribes will retain access to their ancestral lands.

We hope to see you at the meeting and look forward to hearing your perspective on the matter!

Sincerely,

John Doe
Event Coordinator
Utah Chapter of the Sierra Club