

# Finding and Ethical Balance Between Humans and the Planet for Design: An Examination of Sustainability Ethics and Their History in Design and Business

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## ABSTRACT

Ethics have always undergirded sustainable cultures, however through the advances of Industrialization those were lost until the Environmental movement began to question the destruction of nature at various points throughout industrialization's growth. The movement continued to gain momentum as scientists began to understand the complexity and importance of the Earth's Ecosystems to human society. This resulted in the integration of sustainability into industrialization and society in various ways including Organic Farming, Renewable Energy, Permaculture Design, Sustainable Design and Business movements such as Fair Trade, heeding the warnings of environmentalists but balancing the progress of industrialization. This was culminated with the Brundtland Report of 1987 entitled our "Common Future" that popularized the term "sustainable development." Out of this evolution came about the first comprehensive Sustainable Ethics for a Globalized world, pulling out of the ravages and opportunities of early Industrialization. Permaculture developed its 3-core ethics as early as 1985. However, the Triple Bottom Line, initially developed in 1994, became the dominant benchmark for applying sustainability in business. These sets of 3 ethics vary drastically based on terminology and rankings, which can have very different results, as the stated intentions for designers sets the path for their end result. Over these last 40 years, we have come a long way in developing sustainable solutions. This paper examines their impact, how they differ and how they relate, what other standards align with these stated ethics and how we decipher the best path forward for a global set of ethics to define a Global sustainable culture built upon sustainable industrialization.

**Keywords:** Sustainable design, Sustainable ethics, Permaculture design, Triple bottom line, B corporations

## INTRODUCTION

Modern Ethics can be really confusing in a world with so many opportunities. Ethics always set the guardrails for a society. If they fail to encompass the most important parts of a society then the society can fail over time. Ethics are how sustainable cultures maintained their success in balance with the ecosystem, the foundation of every culture. However through the advances of Industrialization those ethics were lost until the Environmental

movement began to question the destruction of nature at various points throughout industrialization's growth. The movement continued to gain momentum as scientists began to understand the complexity and importance of the Earth's Ecosystems for itself and to human society. This resulted in the integration of sustainability into industrialization and society in various ways including Organic Farming, Renewable Energy, Permaculture Design, Sustainable Design and Business movements, heeding the warnings of environmentalists but balancing the progress of industrialization. This was culminated with the Brundtland Report of 1987 entitled our "Common Future" that popularized the term "sustainable development" (Brundtland, 1987). Out of this evolution came about the first comprehensive Sustainable Ethics for a Globalized, Industrialized world, pulling out of the ravages and opportunities of early Industrialization. These ethics set the rudder of society towards sustainability, or maybe more appropriately, mutualism. Mutualism can take us beyond just sustaining and help humanity move towards its true potential of working with nature, to enhance it beyond what it can do on its own. After all, each species on this planet is influencing its surrounding environment for better or worse. Fortunately, humanity has proven that it has a capacity to choose to enhance ecosystem processes (Mann, 2005). This idea can help humanity and nature have a more productive, resilient and regenerative future for both, creating a shining future for this planet with limited finite resources, yet potentially infinite renewable resources. Over these last 40+ years since the development of the first simple, yet globalized ethics, developed by the Permaculture movement's originators, we have come a long way in developing sustainable solutions, including various takes on sustainability ethics. This paper examines these contributions impacts, how they differ and how they relate, what other standards align with these stated ethics and how we decipher the best path forward for a global set of ethics to define a Global sustainability

## WHAT ARE ETHICS?

Ethics are the glue of a society. Ethics is defined by Meriam Webster dictionary as "a set of moral principles: a theory or system of moral values". Ethics lay out the code of conduct towards our fellow human beings and our physical and living environment. Survival in all ecosystems can be challenging but can be especially challenging in certain harsh ecosystems such as deserts or cold climates. Ethics can play a critical role for a culture's success in those environments, creating guardrails for a society to follow to prevent the undermining of their sources of survival. However, sometimes they are disconnected from their ecosystem, which can be problematic. This scenario can result in societal collapse as there aren't guardrails on how to treat the ecosystem, the foundation of all resources that humans need to survive. The book *Collapse: How Societies Choose to Fail or Succeed* by Jared Diamond (Diamond, 2011) sums up the failure of such societies from an inability to respect or work within the limitations of their ecosystem, most often underscored by the destruction of their soil (Montgomery, 2007). Settled cultures are what his book focuses on, mostly, because there is a more easily

accessed archaeological record from where they lived. Nomadic cultures were harder to track due to their limited impact on the earth. However, as Joseph Campbell points out in his *Power of Myth* interview (Campbell, 1988), myths change. He uses the example of the Mississippian First Peoples, a settled culture in the Mississippi River Valley, when they became nomadic, thanks to the Spaniards bringing horses to the American continents. When this happened, their myths and thus their ethics changed to survive as nomadic buffalo hunters on the great plains of the American continent after leaving their settled cultures in the Mississippi River Valley. So, ethics, which sometimes are engrained in myths or stories of a culture, are foundational to their success. However, as Joseph Campbell points out, they can evolve and change based on changes in culture, but they are still there as guardrails to ensure success. This evolution is critical.

## THE DEVELOPMENT OF MODERN SUSTAINABILITY ETHICS

The development of modern Ethics for a Globalized Industrial society really gained momentum with reports like the Club of Rome's Limits to Growth in 1972 or the Brundtland Report of 1987 (Brundtland, 1987) (Meadows, 1972). However there had been a long line of contributors to this movement, before, during and after those reports, such as The Whole Earth Catalogue, which was inspired by the first photograph of planet earth from space, or Rachel Carson's *Silent Spring* of 1962. But also, from movements such as Organic Farming, which questioned the use of chemical agriculture starting as early as the 1920's (Trauth, 2016) or the work of John Muir, who helped establish the US National Park System, the first of its kind in the world, in the late 19<sup>th</sup> and early 20<sup>th</sup> century. However, simple yet broad ethics were developed as comprehensive awareness of the problems were understood, be it through business with the Triple Bottom line or philosophical movements such as Permaculture.

## PERMACULTURE'S ETHICS & HISTORY

The Permaculture Philosophy and Design process, developed by David Holmgren and Bill Mollison, built on several previous works including, *Tree Crops* by Russel Smith and the work of Yeoman and his holistic water management design processes, was responding to the observed failures of annualized industrial agriculture, including soil erosion and polluted lands and waters. It's growth and development was influenced from discussions with many leaders in the field at the time, including pioneering Industrial Designer, Viktor Papinek as acknowledged in Permaculture 2. This movement began to make explicit its foundational ethics in *Permaculture 2*, Bill Mollison's 2<sup>nd</sup> book and first solo publication on the subject, in 1979. Mollison states towards the end of that book on page 143 that "Human Society is complex and I do not pretend to have all the answers, but it seems to me that we will have taken several steps in that direction if we can pledge to ourselves to:" and he then lays out 15 bullet points. The first one is "World Citizenship, membership of spaceship Earth" which is very reminiscent of

Industrial Designer, Buckminster Fuller's book title, *Operating Manual for Spaceship Earth* from 1969. However, Holmgren points out that Spaceship Earth was popularized by Steward Brand of the Whole Earth Catalogue and "implies that we have the power and wisdom to manage the Earth" (Holmgren, 2002). The 5<sup>th</sup> bullet is "Care of the Earth", the first reference to one of Permaculture's 3 ethics (Mollison, 1979). The rest of the bullets allude to what was later consolidated into Permaculture's core 3 Ethics. In 1985 in the Permaculture Journal Mollison states that "Sitting on a log with Carl Winge at Evergreen College... in 1982, we jointly devised an ethic and charter for an Earthbank Association...(which) represents a parallel move to direct the energy of mainstream fiscal economics to sustainable ends" (Mollison, The Permaculture Movement - Retrospective and Evolutions 1972–1984, February, 1985). They laid out Ethics for the Earthbank in a 1983 article where they state that investments of excess funds and reserves will be done in a manner consistent with our commitment to Earth Care and People Care. Our Ethic is to support and promote:

- The conscious of a whole, living, interrelated, interdependent earth;
- Individual, community and regional self-reliance;
- Cooperative enterprises;
- Enterprises which support their communities basic needs" (Burton, Mollison, Green, Winge, & Gilman, 1983)

Those were further developed, defined and refined, based on the Permaculture Design Course Handbook from the Permaculture Institute in 1985 as Permaculture's 3 Ethics:

1. Care of the Earth
2. Care of People and
3. Give Away the Surplus

which the last goes on to be described as "to pass along anything surplus to our needs (labour, money, information) for the above aims." This is critical as it states that profit should be reinvested in people and nature to enhance both of them. They also go on to expand on these 3 Ethics with a broad scope addition: "Implicit in the above is the "Life Ethic: all living organisms are not only means but ends. In addition to their instrumental value to humans and other living organisms, they have an intrinsic worth" (Bill Mollison, 1985). Some say, as colleague, Peter Bane referenced, that this was derived from the work of 1952 Nobel Peace Laureate, Albert Schweitzer with the phrase he developed "Reverence for Life" which he states and expands upon in his book *Philosophy of Civilization* (Radigan, 2012). Schweitzer digs deep into this concept, being inspired by his Christian faith, which was underscored by the book he wrote in 1906 entitled "The Quest of the Historical Jesus". However, hailing from a French town in Alsace, right on the border of Germany, he may have seen some of the atrocities of World War 1 & 2, being centered in one of the most war torn regions of the early 20<sup>th</sup> century, thus inspiring him to develop his idea of "Reverence for Life". Permaculture's Ethics are rooted in the understandings of the importance of ecology to human civilization, which

provides us all with the most important resources such as water and food, but also materials and energy that we use to survive in our regions. Permaculture's Ethics get to the root of sustainability, which underscores that Humanity is dependent on nature.

### **Odum and eMergy**

Another major influence for Permaculture was the work of Howard Odum and his books and research around Ecology, Energy and Society. He developed accounting systems to properly account for embodied energy in ecosystems and human society called eMergy, short for embodied energy or energy memory (Odum, 1996). These tools help us to begin to quantify the value of ecosystem services in relation to human created services. This helps to put them on equal footing and to value ecosystems in relation to our economic systems. Energy and its many forms are the 'magic sauce' of Industrialized society and quantifying first whether it's finite or renewable is critical. Second is to quantify how long it took the Earth to create those unsustainable energy sources is critical to understand how we can align societies energy necessities within the limits of the planet, especially around renewability. If it's not renewable then asking how can we invest that energy for the greatest impact to leverage the capacity of society to live off of renewable energy sources. This is foundational to permaculture and its design process. This process and its principles give directives on how to mimic renewable systems in all aspects of human society, while also taking care of humans for the greatest effect. This is reflected in its ethics and rankings.

### **THE TRIPLE BOTTOM LINE**

The Triple Bottom Line (TBL), developed back in 1994 by John Elkington which he describes as "a sustainability framework that examines a company's social, environment, and economic impact". It was inspired to expand the idea of single bottom line accounting, which ironically had been developed 500 years earlier with the treatise by Luca Paccioli on double-entry bookkeeping (Elkington, 2018). It is distilled down to 3 simple ethics with great alliteration, similar to Permaculture's Ethics:

1. People
2. Planet
3. Profit

Elkington had been involved with Sustainable Business endeavours since 1980 when he published his first book, *The Ecology of Tomorrow's World*. TBL was adopted by corporations around the world as Sustainability became accepted by the public.

### **Elkington's Critique 25 Years on**

However, even Elkington acknowledged in 2018 that the Triple Bottom Line fell short after 25 years in an article he wrote exploring why it was time to rethink it for the Harvard Business Review. Optimistically, he says that it's goal from the outset was system change – pushing toward the transformation

of capitalism. It was never supposed to be just an “accounting system” which he acknowledged that it had become and was failing because of the stronger drive for profits alone. He does highlight several other attempts to move business towards more sustainability that proliferated after TBL, such as ESG (Environmental, Social and Governance), Net Positive, the Sharing Economy and Social Return on Investment. He critiques that “we have conspicuously failed to benchmark progress across these options, on the basis of their real-world impact and performance”. The one he does call out as having more impact is the B Corporation movement which is also oriented around triple bottom line concepts. He states that these corporations are not only “the best in the world but best for the world”. This is because they are moving beyond the ‘profit only’ business culture, as defined by business and instead recognizing that investments in humans and the ecosystem, which show up as losses in traditional accounting, are gains with the proper scope, which is more similar to Permaculture’s Ethics.

## **THE B MOVEMENT**

The B Corporation movement launched in 2006 and its current mission is “Our international network of organizations leads economic systems change to support our collective vision of an inclusive, equitable, and regenerative economy” (Lab, 2025). When I first heard of it in 2012, people explained to me that it was a new corporate status for businesses, out of California that aims to redirect the mission of a corporation to expand its scope of ‘accounting’ for investors through taking social and environmental expenses off the books. In order to ensure investors are okay with this, they inform them through B Certification that this is the goal, and not simply the ‘bottom line’ of profits at all costs. This goal is set because it is always cheaper to pay someone below a living wage or improperly disposing of toxic waste by dumping it in a river, thus increasing profits, rather than properly managing it or paying a living wage. Yet, as the movement has grown in influence and impact, it has more specifically defined its direction as a stakeholder-driven model. This can help businesses recognize all their impacts on their employees, communities, and the environment and work to address them.

If companies meet these standards set by B Lab then they are certified and the B Certified logo can be used by them in marketing (Lab, 2025). Unfortunately, their questions come across as rather basic in terms running an ethical sustainable business and I will argue later on, need to push further to achieve a sustainable society. Nonetheless, it is offering a good baseline to start with. However, this just means that we need to keep working to identify and implement what this world will look like. Certifications like this can be expansive to address the diverse types of businesses and their varied impacts. Yet, if the goal is clearly recognized and stated, then these complex systems can help us move towards a sustainable future through informing the consumer their values and processes.

## WHAT IS SUSTAINABILITY AND IS IT WHERE WE NEED TO GO?

It is important to delve into the word ‘sustainable’, as that may not clearly state where humanity needs to go, in terms of finding that ethical balance between humanity and the planet. Holmgren’s (2002) publication, *Permaculture: Principles and Pathways Beyond Sustainability*, underscore the reality that sustaining is not enough. Sustaining humanity doesn’t necessarily define or give clarity to the problem of sustainability in the context of a complex ecosystem, which is dynamic and constantly evolving, responding to complex pressures. ‘Resilience’ is another word that is commonly used in relation to sustainability as nature is resilient to impacts. However, every living being can achieve that in the right conditions, as that is a principle of life on earth and thus maybe not the pinnacle of our goal. ‘Regenerative’ is another term used quite often, yet every living being is also regenerative in many senses, including its ability to heal and/or reproduce itself, especially if the conditions are right. Ultimately, all of nature is resilient and regenerative, even after its been destroyed. So, what should humanity aim for to create balance between the planet and humanity?

The more we understand about the complex interactions in nature that has made it successful for 2 billion years, the more we can understand how to replicate them in our societies, to align with the limitations and opportunities of our planet and its renewable and finite resources and create goals and ethics that align with these realities. This ultimately is a cultural shift for modern Industrialized Societies as they learn how to reflect those limitations and opportunities into our cultures, societies, businesses and our homes with all of our actions. Ideas such as keystone species and how they influence and manage the cascading flow of resources generated by our primary producers, plants, and their role in managing, and typically increasing, productivity in the ecosystem is really critical to understand (Brown, 2019). A keystone species is defined by Meriam Webster’s dictionary as “a species of plant or animal that produces a major impact (as by predation) on its ecosystem and is considered essential to maintaining optimum ecosystem function or structure”. Through humanities destructive capacities, we have been primarily exemplifying only half of our capacities on the global ecosystems around the world, going back around 10,000 years (Montgomery, 2007) resulting in desertification, which continues to this day around the world. It is estimated that humanity is still creating 75 sq. miles of desert every day. However, through permaculture, ecological design, and exemplified by many sustainable cultures around the world, humanity has the capacity to enhance ecosystem function or structure, while fulfilling our own needs, embarking on mutualistic design processes (Mann, 2005). It is speculated in 1491 by Charles Mann that the Amazon Rainforest is a human created artifact, highlighting humanities capacity to work with nature and create the most productive ecosystem on earth (Mann, 2005). That is also highlighted in the book *Botany of Desire* by Michael Pollan, where he researches the symbiotic relationships humanity has with 4 different plants (Pollan, 2001). It is also highlighted through the symbiotic relationship between humanity and dogs, which have become the most diverse mammal on earth through that

symbiosis, while its wild counterparts almost went extinct (Chinn, 2020). Ultimately, this underscores humanities creative capacity. Humanity is a creator and a destroyer, just like many species around the world, however our capacity, for better or worse, is greater than all of them as identified. Yet, Western cultures, through being destructive, have failed at working with nature over and over again, as exemplified by the high number of failed civilizations such as the Greeks and the Romans (Diamond, 2011). Fossil Fuel Cultures, as currently developed are simply an extension of these failed methods, as Collapse points out. However, the goals set by a culture, and thus reinforced and directed by its Ethics can right that ship. Thus, goals that are inclusive of all living beings are critical as they create the stability that we evolved out of. The goal of humans learning how to enhance all living beings is what this stability can be built out of. This functional interconnection, as permaculture defines it, helps integrate humanity into its global ecosystems. This is the foundation of mutualism. Mutualism takes symbiosis beyond benefiting one organism to it benefiting all organisms.

This requires humanity to cultivate the environment for all life to thrive. Yet, it also requires it to manage that ecosystem productivity through conscious awareness of each organisms needs. Permaculture Design teaches this through its principles but also its niche analysis design process, by ensuring that the yields of one organism benefit another in the system. This is also true of cultivating diverse and resilient genetics of each organism, to ensure their continued evolutionary success, in collaboration with other living organisms and humans. This must also be applied to the things we design, be it buildings, transportation, products, clothes or anything else that we design. Examining how they can be built out of mutualism, enhancing the planet with each product, throughout that physical things life span and ultimate demise and return back to the earth. Through this empathic design process, we can begin to Design a Mutualistic Society. One that enhances the planet and all of its living beings and the ecosystems they live within, while also enhancing humanity and the societies we live in. This concept takes us from being less bad to a win-win.

## **DEFINING GLOBAL SUSTAINABILITY ETHICS**

To achieve mutualism, Humanity needs to develop ethics that inherently respect, learn from and enhance ecosystem processes. Humanity needs to learn to work with nature through enhancing its productive capacities to fulfil nature's needs while also fulfilling humanity's needs. The triple bottom line may have failed because of the ranking of its ethics, with People first rather than Earth Care being first, as in Permaculture's Ethics. In an email exchange that I had with David Holmgren, Co-originator of the Permaculture concept, he underscored that Permaculture's 2<sup>nd</sup> and 3<sup>rd</sup> ethics are inherently nested in the first ethic of Earth Care and thus why it is first. It's important to understand that nature doesn't need humanity to survive. Many species and civilizations have gone extinct by not working within the boundaries of nature's processes. However, humanity needs nature to survive. Humanity needs nature to provide food, clean water, energy and other resources.



Humanity has learned how to provide some of those resources artificially, but at what cost and how long will those systems last before they break down because they are not renewable? Thus working with the Earth is a sure bet to long term sustainability and why it must come first.

### What to do With Profits?

TBL may have also failed through simply defining profit as a simple goal rather than what to do with that profit. Permaculture on the other hand directs people to return that surplus to Earth Care and People Care, a reinvestment in renewable systems, just as nature does. Unrestrained profit can lead to extreme inequality as we are currently witnessing and have witnessed over and over again. This inequality is itself inherently unsustainable as turmoil will eventually ensue. At its core, this is exploitation, which is detrimental to both parties ultimately and can result in collapse. Elkington concludes his 'Recall' of the TBL with a recognition that if we don't act fast enough, none of these ideas will stop us from overshooting out planetary boundaries. He offers us hope that in another 25 years, this will be looked back at as a point when we began spurring on the regeneration of our economies, societies and biosphere (Elkington, 2018).

### CONCLUSION

Global Sustainability ethics are critical in the face of a globalized industrialized world without strong checks and balances. Without proper ethics humanity doesn't understand the risks it faces through unchecked development. However, through basic guidance that is properly vetted in relation to the earth and its ecosystems, humanity can start to find its way back into balance with the planet.

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