

## **Chapter 11**

### Sustainability and Beyond



*The answers were always apparent when we were children. Is it that the answers have changed or simply that we need to go beyond what we think are the limitations of the world? Or are they our own limitations? The answers are simply there – if seen.*

It began in the 1960's. The period of time when Americans were trying to look at everything in a new light. All conventions were being cast aside, and the disconnected modernism of the 50's gave way to the "back to nature" movement of the 60's. While much of the environmental movement of that time was based on aesthetic concerns, over the course of the next few decades this was to change significantly. While environmentalism as a movement took a backseat in the 80's due to the rise in "yuppism," this changed slowly in the latter part of the 80's and early 90's, as a resurgence in the celebration of Earth Day and environmentalism as a whole came back in vogue.

One of the original means for conveying the essential message of the environmental movement was the three R's: Reduce, Reuse and Recycle. The

message of the three R's lasted through much of the 90's and into the first decade of the new millennium, at which time the term *sustainability* was added to the lexicon. A careful look at each of these terms and their implied actions has a twofold importance. First, it yields an interesting understanding of how environmental issues have changed, and, second, it highlights where there is still a need for other approaches and solutions to the environmental questions of our time.

## **Reduce**

Reduce is the first step in any environmental program. Before effort is expended on solving other aspects of an environmental issue, reduce is generally the simplest action to carry out. For example, many people are concerned about the number of plastic bags that end up on the streets, in parks, on the side of the road, and ultimately in landfills. While many changes could be made, such as using a different material to make the shopping bag, simply changing the material may not ultimately change the root problem. Even if such a change were undertaken, it would take time to implement it. While this does not rule out the future possibility that we may need to change the material makeup of the bag, an immediately effective solution is to simply use fewer plastic bags. Perhaps more groceries could be safely carried in fewer bags, or the customer could bring a fabric bag. One could carry small loads of groceries in their hands. In many situations, a bag is not even needed. Bag *reduction* as opposed to altering the bag itself is a very effective and immediate solution – and is relevant whenever it can be implemented.

## **Reuse**

The solution to reuse is one where, again, the end user can easily participate in a solution to an environmental issue. In keeping with the plastic bag example, one can choose to reuse the plastic bag for the same or related purpose without changing the structure or makeup of the bag itself. In the case of the plastic bag, we can recognize that its useful life extends beyond one trip home from the store. We can simply reuse the bag for trips to the grocery store, or any other situation in which it comes in handy to carry items. It can also serve as a packing material to cushion something fragile. On more than one occasion I have found the need to resort to a plastic bag as a quick and somewhat effective means of keeping myself dry in an unexpected rainstorm. Again, these are all fairly simple solutions and do not require participation by any other than the end user. One is limited only by the imagination and memory, as well as the useful life of the bag.

## **Recycle**

The final of the three R's, recycle, involves a fairly straightforward intention. The bag can be returned to a central location, and the material itself will subsequently be used to make other plastic products. The recycling process often degrades the strength of the material to a point where it can no longer be used for the original application. In general, recycled plastics are utilized for a 'lower' use than their original one. Other materials, such as glass and metals, degrade less when reprocessed and can be used to make the original or similar product. These other materials require a significant amount of energy to refine from their raw materials, and thus recycling them makes a lot of sense. The energy needed to re-melt the material for a new use is small in comparison to the initial extraction and refining process, and results in essentially no degradation in the product.

Recycling may also include reclaiming and reusing old materials that still retain their character and aesthetic appeal. For example, for a number of years there has been significant interest in recycling old house materials, such as flooring, columns, fixtures, and doors, in order to use them in new houses. The recycling of wood flooring, for example, is not only environmentally responsible, the older wood usually has a tighter grain due to it being sawn from old growth forest. This gives the flooring what most consider a more beautiful aesthetic appeal, while also making the wood harder and more durable.

### **Sustainability**

Sustainability is the latest catchphrase in the environmental movement. Sustainability goes beyond the specific products that are being produced. It requires taking a step back to see if the rate and method of usage of the material is one that can be maintained for a significant period of time. In our present time, we often hear that the rate at which humanity uses oil is not sustainable. The concern is that oil is being used at a faster rate than it can be discovered and extracted, and, ultimately, restored. Similar concerns arise over the rate at which water aquifers in the agricultural regions of the American Midwest are being depleted. The present rate at which the water is pumped out of this region appears to exceed the rate at which the aquifers are recharged. The key addition of 'sustainability' to the three R's is that it looks at the usage of a resource over time.

While much focus and attention is given to the idea of sustainability, I would like to suggest that, by itself, sustainability is not a sufficient final state of environmental activity. If we end our environmental activities with sustainability, it implies that we can only use resources at a rate lower than they will naturally replenish. This, it seems, is not always possible given the needs of human beings on earth today. While I want to clearly point out that extreme caution must be taken to exceed a naturally sustainable level of use, I believe that our present situation here on earth creates specific situations where humanity must assist this process. However, this can occur *only under the circumstances where human understanding of the natural system in question is thorough enough.* We

need to be sure that human activity does not support the use or production of one resource at the expense of creating a greater imbalance in the environment as a whole. That is to say, we must look beyond the use of each resource separately, and instead cultivate an understanding of the environment as a whole, and sustain the balance inherent in it. This is a tremendous task, and one that requires a whole new level of understating and awareness. History is full of examples in which human intentions to solve one environmental problem have inadvertently created another and often worse problem. For example, chemical pesticides were intended to get rid of unwanted insects, and often ended up killing not only the targeted insect but also beneficial insects and other life-forms as well. It soon became apparent that when these same chemicals were ingested by human beings, many negative effects occurred, including allergies, a reduction in mineral intake, and even cancer.

Having stated the caution above, we can now begin to look at the higher forms of environmental activity – *restoration*, *regeneration* and *creation* – and begin to identify the conditions necessary for these activities to be developed in a responsible manner.

### **Restore**

Restoration is called for when we encounter a situation in which natural processes have been interfered with in an unsustainable manner, and destruction of the natural world has already occurred. The challenge is then to either live with the destruction, or find some other means of bringing the natural system back into balance. Of course, the easiest means to attempt to accomplish the latter is to simply leave the system alone and hope that nature takes its natural course and self-restores. Such a method is often used after logging a piece of land. A few 'less valuable' trees are left behind, supplemented with a few plantings, in the hope that the forest grows back. Anyone who has encountered such a forest, even years later, will easily be able to observe that the natural age and species variation of trees is not the same as that of the original forest. I have visited forests in the Adirondack Mountains of New York that were cut over 120 years ago, and were allowed to naturally grow back to a forested state. Still, one can see signs that certain tree species have not had the conditions or the time to fully restore themselves.

In order to truly work in a restorative capacity, human activity must create the conditions that support the natural restorative processes. Again, I caution against environmental manipulation in the name of economic gain. Instead, true restoration needs at its core the motivation to heal what is grossly out of balance.

Working restoratively requires human beings to understand many aspects of natural processes. One cannot simply plant trees to renew a clear-cut forest. What types of trees grew naturally in that area? Was it originally all one type of tree or a mix? When a forest fire burns through a forest like this one, what types of trees are the first to germinate? Are there other conditions that must be

attended to? Are there different types of trees that grow near streams and rivers? What about the higher more exposed areas? Do other plants and animals have a role to play in the reforestation of a forest? From the simple example of reforestation, one can see that simply planting all of one tree species plantation style is unlikely to restore the forest to a state of health. True restoration requires a great deal of study and wisdom about a particular habitat or set of conditions. It requires the human capacity of observation and perception, together with living thinking, to gain a more holistic understanding. Out of this understanding the full restorative potential of areas of compromised environmental integrity can be realized.

### **Regeneration**

If restoration requires a lot of work, the ability for human beings to participate in a process of regeneration requires even greater wisdom and a finer sense for not only the desired outcome, but for all life process and activities involved. The process of regeneration is just that: a process. To properly understand regeneration one must become intimately aware of the life-supporting processes that underlie the living world. One has to take tremendous care to be certain that the nurturing of a life process in one area does not simultaneously create a greater problem in another. An example of this consideration can be found in the case of artificial fertilizers. While initial results of continuous application can be powerful, in time the need for fertilizers can become so great that toxins build up in the soil, and additional additives are required to bring it into balance. Even with so-called natural fertilizers this can become a problem. One organic farmer recently spoke to me about the imbalances in his soil as a result of the repeated application of chicken manure. While this added many needed nutrients to the soil, it also caused the buildup of other substances that were not beneficial. In the end, the farmer mentioned that he planned to let the field sit for a couple of years so that it could rebalance naturally. Note that in this case the final regenerative balancing process was a natural and unknown process that human beings did not yet have the wisdom to attend to.

Staying with the agricultural theme, one of the few truly regenerative processes that comes to mind is that of biodynamic agriculture. This form of agriculture was developed by Rudolf Steiner in the early part of the 20<sup>th</sup> century. The central premise of biodynamic agriculture is to view the farm as an organism that has a myriad of relationships, both within itself and with its surroundings. In the biodynamic approach, the farmer brings balance by finding the right plant processes and animal processes to support a continual state of regeneration. Local soils and compost processes are also considered, as are the patterns of the sun, moon and stars. Particular types of compost and compost preparations that enliven the soil are introduced. The key to this type of agriculture is to let go of the concept of adding materials. Instead, one looks at *processes*, and works to foster those that are life-affirming. It is important to note that compost activity, which breaks down many types of dead plant matter, can be a deciding factor in

whether a farm is healthy or whether it requires significant amounts of artificial fertilizers. The breaking down of dead plant or animal material is an essential part of transformation and regeneration, a key activity necessary for any living organism to survive.

From this example we can see that the stage of regeneration requires human beings to be keenly aware of all processes that effect and work within a given part of the world. Once again, verbs become more important than nouns. All aspects of the process must be understood from beginning to end to beginning again. All aspects of the world affecting or affected by the regenerative process, even those outside of a specific desired process, must be carefully taken into account.

Regeneration is very powerful but also highly complex and subtle. Regenerative activity requires tremendous wisdom, and also a very high moral character. While opportunities for manipulation exist, usually if a process is truly regenerative the wisdom required also ensures the morality, as the wisdom arises from coming to know an aspect of the natural world so intimately. True understanding requires a knowledge that is so intimate that love, the true ability to care for what is in the world around you, is almost always experienced simultaneously. Regeneration, practiced properly, arises out of and continues to cultivate the integration of true caring or love and deep wisdom that sees the specific in relation to the whole. A person practicing this way of being becomes a life-giving force in the world, for all those around them, and for themselves.

Even given the complexity, intimacy, and wisdom that is called for, it *is* possible for human beings to practice regeneration. There is a great need for regenerative activity in the world at this time, as many still hold on to materialistic concepts and economic motivations that bring greater and greater imbalances to the natural and human world. With so many beings present, human and other, the positive mode of regenerative discussed above is actively being called for. The capacity for regenerative activity in human beings and the regenerative activity in the world itself are required if all human and other beings are to live with less suffering than presently exists. A recollection of the previous chapter, outlining the actual land available to each human being, suggests that the processes of regeneration must be taken up by human beings *now!*

One application where a regenerative approach is surely needed is in the area of human energy usage. Presently, the majority of the energy utilized by human beings in our technologically based world is built on the premise that we must consume a fuel, be it fossil, biological, nuclear or chemical. While some of the newer energy production utilizes physical forces found in nature, such as wind or solar, it is within the general view that we must *use* some-‘thing’ to produce the energy. If we look at the plant world for a moment, we see that the plant is able to produce all of its energetic needs from being exposed to the sun, while simultaneously producing the bulk of its form from the synthesis of a gas in the

air, carbon dioxide, and water. What pushes the plant beyond the more conventional approach to energy generation is that the whole process occurs endothermically – it does not require a fuel or warming but actually produces cooling. In other words, the plant produces energy while simultaneously creating its form, and at the same time cools the environment around it. The only quality of release in the plant processes is the production of oxygen, a gas required by many living creatures and one of the most activity-facilitating elements in the world. One can see that the plant is engaged in a process where nothing is consumed; instead, a process occurs in which the plant produces greater organization within itself, without requiring an endothermic (warming) process. You would be hard pressed to find another activity in the world that has such qualities. Might it be possible for human beings to create technologies that are similar in their efficiency and unusual in their function? I believe that this is likely, but will require a completely different way of thinking. ■

### **Creation**

This last and final step of human activity can only be touched on briefly here. In many ways, humanity already has its hands full trying to let go of destructive means of interacting with the world while simultaneously attempting to practice the six steps to environmental health described above. It is important to note that while humanity creates many things or social forms, few of them are truly a means for life-giving activity. Many human creations come out of selfish motives: economic gain, control, or to consolidate power within ones' sphere of influence. Still other times, our actions strive to do something positive, but often with the goal of gaining the approval of others or to make ourselves feel worthy. Occasionally, human creations are made as a reflection of natural processes. These processes, while life-sustaining, are not true human creations; they are very important stepping-stones nonetheless.

Human activity can create new aspects in the world that are truly life-affirming. It can be a small gesture or deed, sometimes as simple as singing a song into the world for no other reason than to bring the joy or love it expresses into existence. At moments like these, the rest of the world stops and listens to this totally new aspect of existence. If it resonates, it is taken up by others, both human and, in some cases, other beings.

These creations that reach life-affirming quality are rare. The remaining chapters point in a direction that human beings might take in the spirit of true creation. It is at these moments that we reach the pinnacle of what it truly means to be human. At moments like these we have gone beyond a materialistic worldview and become creator beings. Even thinking about such a moment inspires us to strive toward something more. To sense, to know, to do and to love is to be fully and truly human.

