
The Apology

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1-The Way it just is!

Your (Earth's) Cyclical Imperative

You are a closed system. Hardly anything comes into this system from outside except for sunlight and the occasional meteor, and rarely anything leaves it except for reflected sunlight and an air molecule or two that escape into outer space.

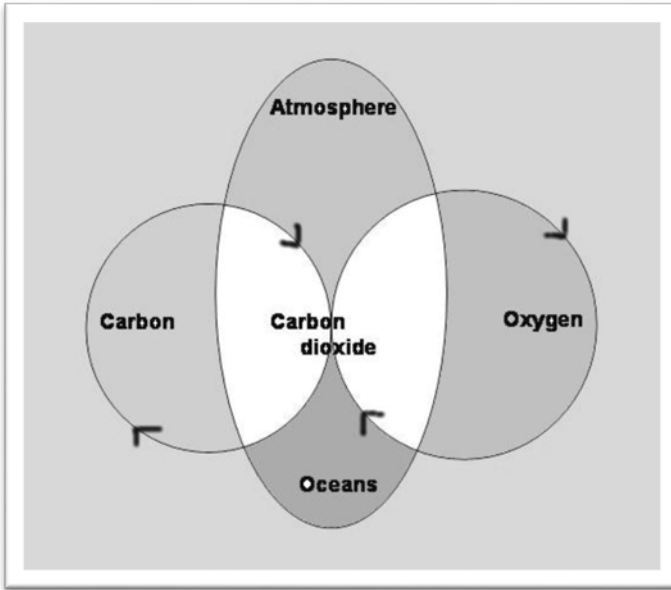
The cycle that can be perceived readily is the water cycle which starts in the oceans, lakes and lands as water vapor that ascends through the air and forms clouds which in turn move around and give up their loads under the right conditions. Part of the water falls as rain or snow and ice on land where it forms streams, creeks, and rivers which eventually empty into lakes and oceans or are absorbed by the land. The rest of the precipitation falls directly into the oceans and lakes.

The water cycle takes a year or two to be completed and there are cycles that take less time or much longer. For example, Your crust consists of tectonic plates made up of rocks, sand and mud that are moving very slowly; colliding with one another. Science tells us that at these collision points one plate may move under another producing extreme pressure and heat resulting in volcanic activity that throws molten rock from underneath to the surface. The rock cools and over millions of years it breaks down to sand and mud once again.

Carbon dioxide exists in the oceans, air and underground. There is a balance of carbon dioxide between the atmosphere and the oceans, meaning that the atmosphere and the oceans exchange carbon dioxide all the time depending on the chemical composition of each, as well the their temperatures.

Scientists like to talk about *carbon dioxide cycles*, which are how these exchanges take place. Two major cycles are the photosynthesis and respiration cycles of living matter in the biosphere. In plants, *photosynthesis* takes carbon dioxide and water and produces sugars and starches upon which all living matter depends for energy. In *respiration*, the reverse happens: Oxygen and carbohydrates are combined, releasing carbon dioxide and water once again.

The Apology



An example of the carbon dioxide cycles

The general idea of a cycle is that it explains how a chemical moves through the environment, starting in one part going to another, and then arriving back where it started with no or very little accumulations. There are an endless number of cycles taking place right now.

The Living Cycles

In simple terms, life is a chemical reaction requiring energy. With a fixed amount of incoming energy from the Sun hitting Your surface, lowering the amount of energy required for this chemical reaction to take place is what the proliferation of life is all about. If the reader asks how does lowering the amount of energy in a chemical reaction is achieved, the answer is in the availability of a catalyst. In most cases where a catalyst is required, reactions occur faster because they require less activation energy.

In summary, increased energy efficiency in the living occurs when changes to its offspring leads to more efficient catalysis.

Cycles are the rule and not the exception for the movement of matter on Your surface is manifested in each species with a circulatory system. Groups of species such as those found in a forest circulate matter in the similar way. One can say that energy drives the circulatory system of forests, and that without it, forests would collapse because each of its links, be it another species or inanimate matter, is a tiny step in recycling of life-giving nutrients, making them available for regeneration of life and therefore maintaining the life of the forest.

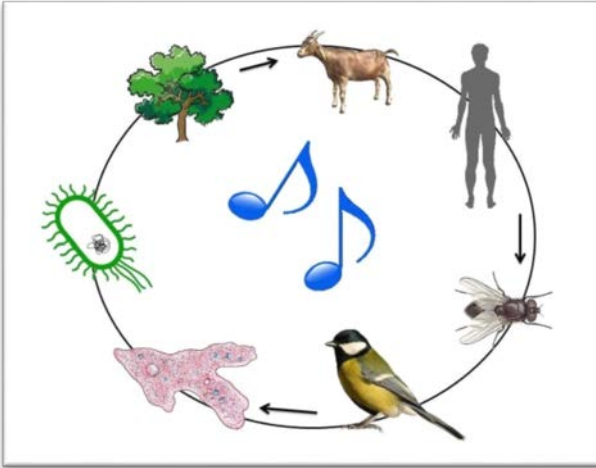
When looking out a window or stroll through a park, the reader may see trees, birds, grass, and bees to name just a few of the life forms present. When focusing on a flower as an object it may appear as independent of the other objects around it, but in reality, it is intimately connected with all other objects in that picture.



When the flower is that of clover it needs soil to grow in, and as a mature plant, it provides nourishment for the bison roaming the Midwest plains. The puma on the other hand seeks the bison for food and when it manages to bring one down, it drags what it can of the carcass to the shade of a tree to eat. Flies gather around the carcass to feed, lay their eggs and try to avoid the birds that feed on them.

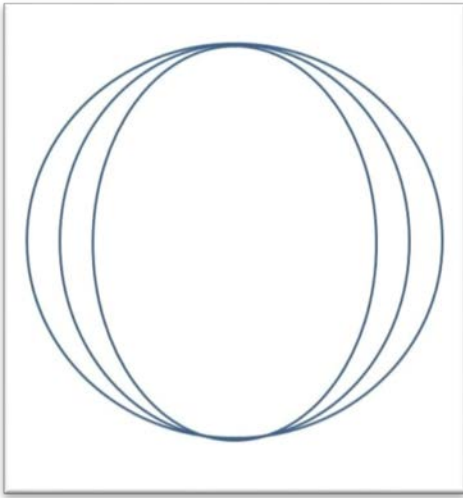
The above picture and explanation are simplified, but they show how different species are interlinked. A more realistic representation of the link between species is circular as shown in the following graph.

The Apology

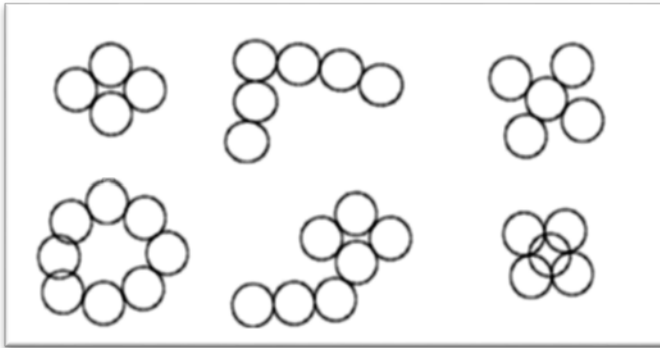


When following the biological cycle above clockwise starting with the green bush at the top left, a story can be told of how nutrients flow from one species to another. First, the bush extracts water and minerals from the soil and with the help of the Sun and atmosphere produces tender leaves which are consumed by the goat to build its body and maintain its growth and health and to give birth to its offspring. The goat in turn is consumed by the human in the picture. The leftovers from the goat are used by the fly to lay its eggs. Some birds eat flies, and all of the preceding species—the goat, human, bird, and fly—as a result of digestion, leave behind fecal matter that is consumed by various microbes such as amoebas and bacteria, which return the nutrients (extracted from the soil by the green bush) to the soil once again.

On any territory, there are multitudes of living cycles but with different species that participate in returning the nutrients absorbed and transformed by the plants back to the soil and to the atmosphere. In addition, these living cycles can have relations with one another. For instance, a living cycle that starts with a bush can have more than one grazer consuming it such as goats, sheep, and deer. These living cycles can take the following shape:

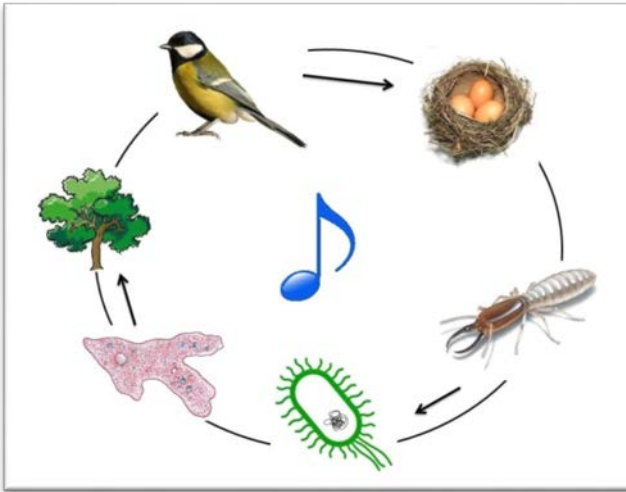


Looking at a square acre of land and trying to describe all the living cycles within it, may come up to a million combinations, some of which may look like the living cycles in the next diagram:



Living cycles are not limited to sources of food. They can be related to nest building and so on. The biological cycle graphic below depicts a bird building a nest in a tree. When the eggs hatch, the nest may fall to the ground where insects like termites break it down passing on the resulting matter to amoebas and bacteria resulting in the return of the nutrients back to the soil.

The Apology



This is probably a good point to introduce the concept of an ecosystem. A forest is an example of one. An ecosystem is a mega catalyst that describes the relations or circular links between air, soil, water, plants, and animals. A forest is not the only ecosystem. A desert such as the Sahara is also considered an ecosystem as well as the biota of a continent.

The Mature Species

When looking at the relationship between the lion and gazelle, the African lioness eats from the herd of gazelle to satisfy her hunger and the hunger of her pride. She does this in a way that always leaves enough gazelle for her to hunt the next day or the next year. If she finished off the whole herd of gazelle, then the lioness' cubs will have nothing to eat the next day or year and die off, the end result being extinction.

One key factor that gives stability to this living relationship is laziness. In the wild, it has been observed that lions sleep for long periods in the shade of trees and go out hunting for gazelle or other prey only when their bellies rumble; to conserve energy lions go after slow individuals in the gazelle herd. If laziness was not present in the pride of lions, one can imagine the lionesses hunting all day and bringing down as many gazelle as they could, which would in the end break the living relationship between predator and prey.

Another key factor is territoriality. Lions are known to have territories that keep other hungry lion prides out and therefore preserve the herd of gazelle from

overhunting. At the same time, the gazelle are involved in the preservation process too. They have evolved the ability to flee when the hunt is on. In addition, the gazelle poses a mechanism that keeps them from over grazing. All these physical and behavioral characteristics are genetically controlled and evolve to help stabilize the living cycle without the lioness or the gazelle having to think about the consequences.

Another factor in these balanced living behaviors is the availability of substitute species. For example, if a lion pride goes extinct, then another species will take over as a substitute.

In summary, living relationships are stable over time because the genetics of their participants had adapted to self-preservation. With respect to a vein of the human species (the clan), its brain and intellect had interfered with this process of developing a behavior that was mature and instead great technological stilts were developed that raised their eyes above the clouds preventing You from teaching them how to be self-preserving.

2- The Transgression

The Birth of Wanting More

Agriculture began independently in different parts of Your abode, and included a diverse range of taxa. At least 11 separate regions of the Old and New World were involved as independent centers of origin.

In the Middle Ages, both in the Islamic world and in Europe, agriculture was transformed with improved techniques and the diffusion of crop plants, including the introduction of sugar, rice and cotton along with fruit trees such as the orange to Europe by way of Al-Andalus.

After 1490's, the Columbian exchange brought New World crops such as maize, potatoes, sweet potatoes and manioc to Europe, and Old World crops such as wheat, barley, rice and turnips, and livestock including horses, cattle, sheep and goats to the Americas.

Irrigation, crop rotation, and fertilizers were introduced soon after the Neolithic Revolution and developed much further in the past 200 years, starting with the British Agricultural Revolution. Since 1900, agriculture in the developed nations, and to a lesser extent in the developing world, has seen large rises in productivity as human labor has been replaced by mechanization, and assisted by synthetic fertilizers, pesticides, and selective breeding.

The Apology

The Haber-Bosch method allowed the synthesis of ammonium nitrate fertilizer on an industrial scale, greatly increasing crop yields. Modern agriculture has raised political issues including water pollution, biofuels, genetically modified organisms, tariffs and farm subsidies, leading to alternative approaches such as the organic movement and regenerative agriculture.

The Transformation from Hunter Gatherer

As the reader can imagine, cultivating plants required a more sedentary existence than that of the hunter gatherer nomadic groups that occupied you before the advent of agriculture. The structure of the group did not change much where there is a leader and followers. As the groups got better at cultivation and animal husbandry a surplus developed. This surplus became the possession of the tribe distributed to be distributed according to tribal custom. Who is to get this surplus created the first political power struggles and power shifted from the group to the leader.

Territories were more firmly defended as the groups increased in its agricultural activities. Barter within the group and with other neighboring groups increased with possessions being a type of exchange tool. For example, a cow may have had the value of five sheep to one group that was hungry for a taste of sheep meat and a strong desire for wool to spin thread.

There were instances where one group needed maize in exchange for wheat. Since the harvest season for these crops is different and storage was no guarantee against rodents consuming the goods it was difficult to make such transactions. What was needed was something to hold the value of the wheat until the maize was ready to be harvested and exchanged. An object was used to hold the value of the wheat until the transaction could be completed. This object was exchanged for the wheat and returned when the maize was ready. These objects later became known as monies.

As techniques of agriculture improved so did its surplus. In Europe, small groups and tribes with their leaders were replaced by feudal landlords and serfs but still dependent on the land for a living.

The Institutionalization of Wanting More

The feudal landlord and serf system started to give way to urbanization in Europe approximately in 12th century A.D. Towns were built and roads had been laid to connect them together and to the land. As towns grew into cities merchant

capitalism developed which involved capital resources used to hire people who were willing to exchange labor for monies in working the land, providing a service or handmade products. Merchant capitalism also included renting of land or products as well as lending monies.

Sir Francis Bacon in the 1600s, among others, advocated the use of the scientific method in research. This ushered in the industrial revolution in the 1800s with the invention of machines that were driven by readily available fossil fuels replacing primitive biomass dependent services and hand made products.

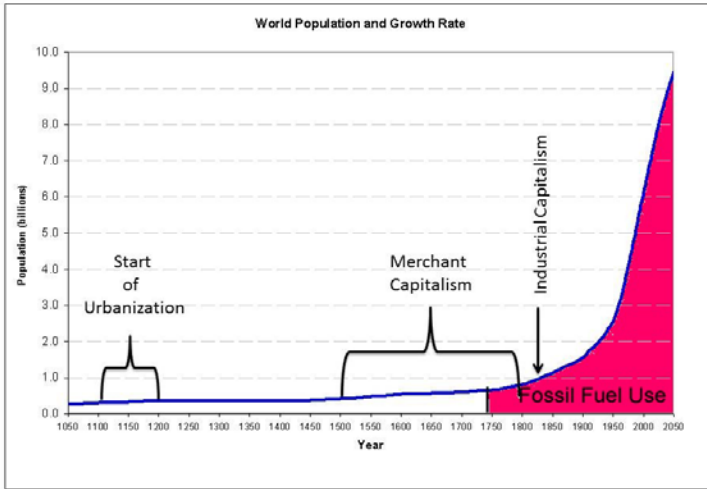
In essence, the feudal system of landlord and serf was replaced by two human organizations in the industrial capitalistic age. The first was the town or city such as London where the masses needed goods and second was the factories that used paid laborers to provide these goods.

As far as the factory was concerned, capitalism was the production of goods in exchange for monies that was driven by the desire for personal accumulation of wealth in a free market system where the needs and wants of consumers are the driving forces of such markets.

The inhabitants of these towns and cities recognized that capitalism had a dangerous aspect in the free market equation namely the formation of monopolies that did more harm than good to the consumers. Laws were introduced to prevent such monopolies and encourage competition. This competition introduced the drive for innovation in the form of cost reduction, substitute and new product introduction technologies.

With the advent of capitalism and competition a slight increase in global population level can be detected during the 1500 to 1800s A.D. as shown in the following chart. The discovery and availability of fossil fuels became abundant through technological advances brought on by competition in the capitalistic market system resulting in the exponential growth of my clan's population from approximately 800 million in 1700 A.D. to 7.4 billion today.

The Apology



The increase of population count increased the consumption of resources extracted from Your body. For example, some resources are being depleted beyond economic value such as critical minerals as can be observed in the following table:

Mineral	Years Remaining
Silver	15
Lead	17
Zinc	20
Copper	22
Tin	28
Nickel	30
Iron	65
Aluminum	81

It was predicted in the publication of *Limits to Growth The 30 Year Update*¹ that the population of humans will plunge to about 2 billion or less from 9 billion in approximately 30 years as a result of this over consumption of Your resources.

The departure of the human capitalistic system with its focus on profits in the pursuit of consumer needs and wants from Mother Nature's way of energy

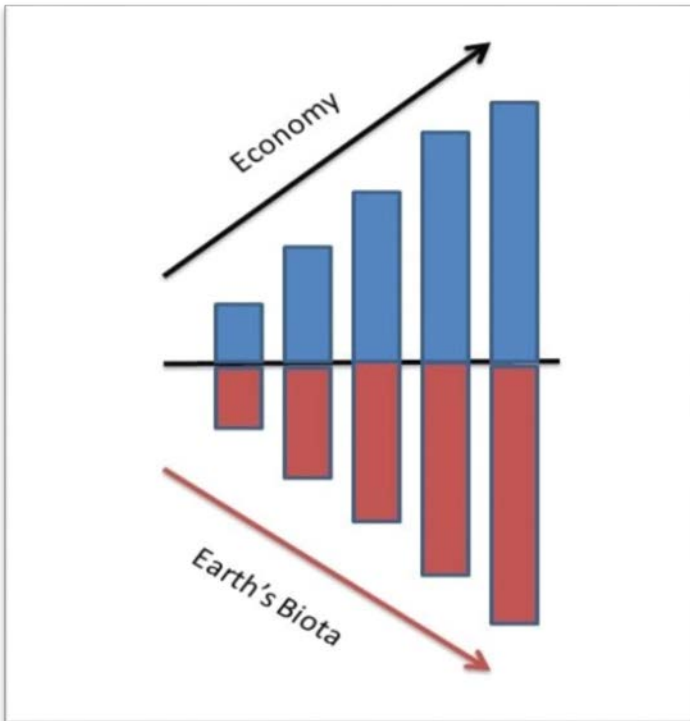
¹ (Donella Meadows, Jorgen Randers, Dennis Meadows, 2004, Chelsea Green Publishing, White River junction, Vermont, U.S.A.)

conservation and resource recycling has caused many unpleasant side effects that are ruining most if not all Your biological habitats.

My clan and I had behaved as if we were the most important of Your species. With this new fossil fuel power source and motivation, we set out to control our own destiny and proceeded to tame the world. Instead of a naturally cyclical existence we felt comfortable with a straight line. So we built square homes, towns, and cities. We denuded the jungle and built farms with machinery that could only go in one direction and so farmland was divided into square or rectangular fields.

Instead of being a part of the circular food chain, the clan and I chose to be at the top of a food pyramid. If a creature was thought to be useful to our existence it was agriculturalized and if it was not, it was ignored or eliminated.

Instead of being more efficient in the use of energy, the clan and I became less so by huge infusions of those fossil fuels. We built our own monetary systems based on increasing the profit margins of companies and individuals by teaching the need for material goods and services and meeting the public's demand for them. Energy was no longer a precious resource but a way to heat up economies that support material-based growing populations. Instead of being a part of the biota, we chose to be apart from it.



The Apology

Summary

As competition to satiate the accumulation of wealth drove the invention and provision of more products and services for consumers an improved public health system developed and the age of death was pushed back leading to an increase in the birth rate and the population count grew exponentially. Competition also increased the quantities of goods and services available for this growing population fueled by readily available fossil fuels. In Your zero-sum world, something had to give and it was not the insatiable wants of my clan but Your ability to regenerate and provide.

3- Apology

How do I start? At what point do I begin? The subject is so vast! But Your pain compels me to write and try to find an explanation. I am not to blame but on the other hand am responsible. I have departed from Your natural path and ended up with my head in the clouds not able to see the reckless approaches in my advances treading on Your hallowed grounds in ignorance.

I now must confess, take responsibility for my actions and the actions of those who preceded me of my clan for they have created the great burden that I now carry. I have peeked under the fog and seen a light so bright and hard to explain. It has taken thousands of years to get to where I have reached but I have not but a few years left in my life to help my clan at least give it a glance.

So I lower my brow and look at my feet and the ground I am standing on for there is the focus of my salvation. I then look up at the sky and observe the Sun for there is the essence of the driving force that could have led us to the way we all were meant to live. You and the Sun were the yin and yang of the belief in the sacredness of the planet and universe.

I hear Your screams clearly and I am ashamed but yet I cannot help it. I have gotten used my life style and even if I decide to follow the path of recovery there is nowhere to start. For I and my clan have done away with Your conventions and transformed You into an alien landscape in totality. There is nowhere to go physically to start the journey that leads to You if it was not too late. Oh how I wish I could have just started the passage to You long ago.

So here I am writing and hoping that the others of my clan will read of You and somehow get my message lowering their heads below the clouds to breath some fresh oxygen and see the simple truth. It was not about wealth, power or technology. It was about wisdom of nature and how it balances You and the Sun in the dance of life. It should all come naturally but my clan's foreign ways are distorting their visions away from reality.

I dream of the day enough people start to see the actuality of nature's way and help You in restoring dignity to Your and our lives so that I am with You once again and not separate on my own with my outlandish ways. I imagine it will be in mind alone and perhaps turn into physical appreciation of the marvel that is You basking in the Sun that reality will sink in to more and more of the lost.

It was not a matter of thinking of nature in a positive way. That was not enough. What was needed was for me to be able to stand naked in a forest and consider it home. You see when I thought of nature I took away from nature's gift. For I am nature in and out; that I belong to nature and not the other way around. I should not have built monuments for nature was the builder. I should not have provided for nature was the provider. I should only have sought my pleasers in nature and let her do all the rest.

All I needed was You and the vibrantly bright Sun to make happiness available to all. Why should have I aimed for the heavenly stars when heaven was here in Your arms? Why should have I sought wealth when all was provided? Why should have I pursued power when it was readily available from the Sun? Why should have I pursued technology for it only kept my head up in the billows gasping for air?

Who gave me or my clan the right to dump our waste in Your oceans, seas, lakes and rivers? From sewage to petrol chemicals to garbage we have been polluting Your waterways beyond their ability to process these toxins in a natural way thinking these waterways are mine to poison as I felt fit to do.

Who gave me or my clan the right to fish Your oceans, seas, lakes and rivers as if the fish are ours to have at any cost to You?

Who gave me or my clan the right to suck up all Your river and ground waters that other species depend on as if these waters were ours to do with as we please?

Who gave me or my clan the right to pollute the air and cause climate changed?

Who gave me or my clan the right to tear down Your forest lands for its timbers and scarring Your beautiful face for agriculture crisscrossed by roads, scratched and poisoned?

The Apology

Who gave me or my clan the right to gauge deep holes in Your precious complexion to accommodate the mining industries?

In actuality no one has given me or my clan those rights but that we have proclaimed them ours with which to do anything in the pursuit of happiness. In other words we have been the proverbial fox guarding the chicken coop and we did not realize there was only one chicken coop in the universe.

With my head and that of my clan's in the empty space above the clouds our brains perceived a mirage indicating the clan's members were more valuable than all other aspects of Your being. If it came to a choice between You and the life of a clan member the clan member was considered more valuable and all efforts are made to save them even if it meant to saw of the tree limb on which we stood.

In reality, the part is subservient to the whole and therefore the clan members are to be submissive to You.

It was not enough to plant a vegetable garden and call it organic just to demonstrate positive thinking towards nature. It was not enough to abstain from using chemicals to help grow or protect the vegetables from pests and called that positive thinking. It was not enough to proclaim that no motorized implements were used to grow the vegetables either.

Nor was it enough to grow the vegetable garden with sustainable means such as composting for soil conditioning and fertilization; plant rotation to avoid soil mineral depletion; or drip irrigation to conserve water. All those methods involved imperfect clan interventions and were best left to Mother Nature.

The idea of clan members growing plants was an alien inkling at best that should have been left to weather away from our mindset. Plants grow on their own in places for which they are best suited. Humans really do not need to do anything to have plants flourish. Nature is the provider of all that is good and healthy for all the living.

For nature is 4 billion years wiser than any of us arrogant clan members. Sure nature has tried and failed but then tried again until it got it right. No amount of clan ingenuity or technology will ever replace the astute methods of nature because it will always be billions of steps ahead of us. I should have given up my egotistical ways and submitted to nature's advanced authority. That was the only way to think positively about You.

I should have been wise and considered myself part and not apart from Your living cycles, web of life and biota. Terms like "humans are at the top of the food chain" and "humans have a superior intelligence" had continuously crept into every day conversations and the literature as an expression of our naturally blind drive to acquire more.

I should have realized I am a link no better or worse than any other link, be it a clump of mud or another species in Your netting of life. I should have abandoned my opportunistic lifestyle and developed a mature one like that of the lioness at the first sign of suffering.

Other species had control programs to become mature. Unfortunately, the evolution of the human brain, in the clan, was preoccupied with the control of other species and things and was unable to take advantage of those mature self-controlling programs. The interference of my intellect and that of my clan fed our egos and blinded us to the eventual results; the more we took the less there was left for others and ourselves.

There were two ways of turning back. One was to forgo the notions of superiority, perform a lobotomy and kill these inappropriate opportunistic tactics. The other was to engage the pursuit of Your salvation through a mature life strategy. The notions of being at the top of the food chain and of superior intellect were mere illusions that had led us all to the rim of the abyss.

The mature life style has been done before in the human species. There are numerous tribes that practiced it who considered themselves part of their environments. Today, for example, The Mbuti people live in the Ituri Forest, a tropical rainforest covering about 27,000 mi² of the north/northeast section of the Democratic Republic of the Congo, Africa. Mbuti are pygmy hunter-gatherers, and are one of the oldest indigenous people of the Congo region. They are composed of bands ranging from 15 to 60 people with a population hovering around 30,000 to 40,000 individuals.

The forest is the center of Mbuti life. They consider the forest to be their great protector and provider and believe that it is a sacred place. They sometimes call the forest "mother" or "father". An important ritual is referred to as molimo. After the death of an important person in the tribe, molimo is noisily celebrated to wake up the forest, in the belief that if bad things are happening to its children, it must be asleep. As with many Mbuti rituals, the time it takes to complete a molimo is not rigidly set; instead, it is determined by the mood of the group. Food is collected from each hut to feed the molimo, and in the evening the ritual is accompanied by the men dancing and singing around the fire. Women and children must remain in their huts with the doors

The Apology

closed. These practices were studied and introduced in the publication *The Forest People*².

Conclusion

Now that the damage has been done and the point of no return from extinction is fast approaching what can I or my clan say but regret listening to our inner voice that said take whatever you want. How could we have been so blind in rejecting all examples around us of the way that other species who came before us managed their abodes?

I am sorry for what I and the others members of my clan had done to You from defiling the waterways to laying fallow the landscapes and making the air the repository of toxins. I am sorry for my arrogant attitude towards You for I am a hypocrite for not following my own words, "Honor thy father and mother" for You are the mother of all species and Sun the father.

I am sorry I and the thousands of generations that came before me of my clan had nurtured and taken care of our own at the expense of Your dignity. We appeared to be a success for a period of time but alas all for not for the clan, I and the rest of Your biota stand at the door of the void.

² (Colin Turnbull, 1962, Simon and Shuster Publishing, Rockefeller Center, New York, U.S.A.)