

READING and WRITING is a special talent acquired by humans on the planet Earth. Ideally, it enables the transference of experience and learned truths from one person to another and from one generation to another. The practical benefit of such an ideal is that as the civilization becomes older, the human participants should become wiser. Yet the average human in the twentieth century is a poor example of 6000 years of accumulated learning shared and developed by billions of persons. Why?

Until very recent human history, the political authority directing groups of humans chose the part of their current history which supported their retention and expression of power and discarded the remainder with a variety of rationalizations. The difficulty with such a human-centred system of absolute authority is that spiritually-guided decision making is seldom either encouraged or allowed to be employed. Human histories, until incredibly recently, have often been the reflections and motivators of fear, pride, vengeance, hatred, idolization, greed, passion, possessiveness, and, most other destructive anti-spiritual human emotions. That is, reading and writing, for humans, have served to encourage more human suffering, abuse, and irreverence than the opposites of happiness, compassion, and, reverence. Why?

Most literate cultures brain-condition their participants from a very early age to acquire a liking or tolerance for reading or writing through the practice of rote learning, social acceptance, and the infusion of attention getting and adrenalin stimulating dramatic expression. That is, much of the population is conditioned to take to a style of reading which provides them with an emotional fix - a play on their emotions.

Life and reality is very dull as a spectator sport so the educated-to-be-passive reader seeks to be entertained, rather than informed. Regrettably, such "entertainment" relies upon exaggeration, deception, half-truths, lies, fantasy, and passion. And so, for many, there is no joy in truth; no attraction in justice. Writers of such works use their scripts to manipulate the thoughts and emotions of the reader and, by their rationalizations, they construct elaborate excuses and apologies for their ego pride, ignorance and intolerance. If there is to be any truth expressed in writing, how can such occur?

Constructive reading and writing is interactive.

The reader must acknowledge his or her own identity and individuality and their right to question the facts and the meaning of those facts. Facts are facts: neutral expressions of the results of behavioural patterns, ecological cycles, and, the potential for and effectiveness of asserted interruptions into those "predictable" responses.

In most human writings, a little bit of fact yields a lot of interpretation and opinion and judgement; hence, at least 80% of all human writing is useless beyond that of

entertainment or political deception. Intolerant and short-sighted value judgements pull the uninformed, inexperienced and impressionable reader into the beliefs of the author. This is largely because humans are taught to adopt a status quo, regulated by social, political and religious authorities - as if it were some form of permanent, unchanging, divine law.

These external authorities teach individual humans that their worth is dependent upon their membership in and support of the human authorities within their culture. In this system of learning there is little freedom and only structured predictable forms of interaction. The individual is presented with a choice of either supporting or criticizing the status quo; no consideration is given to the option of actually UNDERSTANDING the status quo - nor, to the option of seeking spiritually-guided alternatives. So let's burst out of this mental prison and use this report constructively.

The bulk of this report consists of facts set out in chronological order: the order of living reality. It is striped of the drama which would make it both emotionally stimulating and inaccurate. Your challenge is to interact with the information. Don't expect to be TOLD what the significance of the details is. Become a hunter, explorer, adventurer - seeking out the meaning behind the events. Test your ability to make the report come alive by imagining that you are living through the events - that you are there! Become an active, thinking, experiencing, wondering, reflecting being. You have the choice with this report to stop being an intellectual slave and to set your own course.

As you read each entry, ask yourself the following questions:

1. Why was I not told this information in my schooling?
2. What benefit does this information have in helping me cope with reality?
3. What other decisions or options could have been chosen at the time?
4. Is this part of a (behavioural, cultural, human, climatic) pattern?
5. Was there a danger in my knowing this information earlier?
6. If my ancestors knew this information would they have acted as they did?
7. Does the past seem to sometimes reflect possibilities for the future?
8. Do I understand why people have acted as they have in the past?
9. Does this help me understand myself and my challenges better?

**Remember these questions as you read through the following.
Add more of your own. You are going hunting for truths which will form a revelation.**

There is an old anonymous **Parable of the Hunters** who were told about a wondrous style of tree by a wise person. One hunter set out with the description of the tree and searched everywhere without success by nightfall. Another hunter set out the second day and hunted a very long distance only to return at nightfall, also without success. The wise

man questioned how they had progressed in their search for the special tree.

The first described how every tree approached had been inspected. He had come to a forest, and, continuing to inspect every tree for the particulars of the special tree, the hunter had become so engrossed in the search that the way out of the forest became unknown. Being lost, a great amount of time was taken to find a way out of the forest before resuming the search.

The second hunter then told how time was spared and great distances covered by searching out clumps and forests of trees. Surely within a group of trees, it would be easier to find one of the special trees, for, rarely to trees naturally grow by themselves. In addition, the hunter rationalized, the more trees that he encountered, the faster the special one would be found. Yet for all of their differences in strategy, neither had found the special tree. Where had they gone wrong they questioned the wise person?

The wise person turned around and pointed to the special tree, a short ways off. The first hunter had begun with the easiest and closest tree and progressed in a linear and winding fashion from the closest tree to the next closest tree. Never looking further ahead, to the side, or behind than the next tree - the path taken could never be corrected for misdirection and the further afield the hunter became the more confidence arose that the special tree would soon be found. By concentrating on each individual tree and short distances, the hunter had missed the forest for the trees. The special tree was to be found within a clump of similar trees inside a forest of dissimilar trees.

The second hunter had assumed that the special tree would neither be close at hand nor easy to find. A special tree, he expected, would be far away; it would stand out with similar trees like a multicolored flag waving on the hill. Everything nearby was overlooked. He rushed about looking always in the distance for a singular clump of similar trees which would stand out in a majestic manner.

By concentrating only on clumps of trees, all located at a distance, the second hunter missed the tree for the forest. Within a nearby section of forest was the small clump of special trees - just barely visible from the starting point of the search. If one slowly cast one's glance around, the special clump would become revealed as - first, a difference in the mosaic pattern of the forest. If one then progressed closer, defined the clump and moved into it - one could then, individually, inspect the similar-to-special trees. Such an inspection would reveal the sought after special tree.

Neither miss the trees for the jungle nor the jungle for the trees. This is your journey. If you rush and jump around from event to event, you will waste your time and lose your way. It will prove frustrating and you may reach the end confused and without the revelations which otherwise will come to you. If you labour intently on each entry trying to determine what significance can be drawn before you have travelled very far - you will become lost in the rationalizations erected by a proud, expectant, or fearful ego.

You will not be led, coddled, carried, pushed nor told how you must interpret the events. Apparent obvious conclusions will be stated, occasionally, yet they will be given in such a manner that you may clearly recognize them and consider them, set them aside, adopt them, or, incorporate them into some further interpretation of your own. Your challenge is to prove to yourself that you are not a slave to the passive-aggressive authority patterns and structures which have surrounded you from the time of your conception. You can live the rest of your life manipulated here and there by unseen forces, patterns, and structures. That is the easy life of the slave: no responsibility, no direction. How much do you want freedom?

Oscar Wilde once said:

"The only thing we have learned from history is that we have learned nothing from history."

This is your chance to break the bonds of deception, misinformation, half-truths and lies. To do so you will have to risk letting go of pride, possessiveness, denial, fear, prejudice, and hatred. It will not be good enough just to read the words - you will live them as though you were present and saw the images described by those who were there.

If you cannot live the reality that was, you cannot gain an awareness from it - and, you will be no wiser for it. You are entering a hidden world which has always been around you; it has determined what you have become, what you can become, and, what happens around you. It will have such an influence until you can see it, touch it, and interact with it. You have nothing to fear but fear itself. This history is yours. Deny it and it will control you. Acknowledge it and you will develop the strength to go beyond it.

Why all this history?

Unless you can learn what is relevant, you have no choices: you are just wandering through life. Only experience and the play of experience which follows, based on reality, can give you such a skill. As you read the following items, ask yourself what were the possible choices, what were the factors to consider, what were the conditions involved, what was decided on, how was it decided, was it constructive - was it relevant?

Leadership begins with the individual.

As human history has shown many times, persons who are placed into authority or who take authority over others are seldom any more mature than the average citizen, and, frequently not as mature. Just as frequently, such leaders, in spite of their complex,

extensive, often deceptive and manipulative and coercive data-gathering bureaucracies - remain less well-informed of reality than many of the citizens they represent. If you want a better world and a better life, the buck stops here: YOU must become a leader in that direction. The decisions you make, or lack thereof, will decide the future - for yourself and others.

3.8 Billion (3,800,000,000) B.C.

Between 3 and 4 billion Earth years (before 1996) ago, an interstellar dynamic involving the intervening matter in combination with energy forms had progressed to a point at which the gaseous, liquid and material aggregations making up the form of the Earth had acquired sufficient centripetal force and gravity to result in a sufficient density such that the surface now had a solid surface. That is, the distance from the Sun, and its heat, plus the rate of compression of the mass of the Earth under the gravitational forces influencing it and producing a core temperature, reached a balance such that the Earth's surface was cool enough not to remain gaseous or molten. Core heat was generated as a consequence of gravitational collapse, radioactive decay of uranium, thorium and potassium, and, meteorite impacts.

There was no ozone layer to absorb almost all of the short-wave, high energy, ultraviolet rays emitted from the Sun. Ultraviolet radiation combined with primitive gases can synthesize into amino acids, polymers, and many other compounds. Very little free oxygen would be present in the atmosphere until 2600 million years ago. Electrical atmospheric discharges and heat were much more prevalent then compared to modern times. Volcanic activity was the predominant surface feature with lava outflows into ponds and lakes creating a variety of rapidly changing environments and providing sufficient energy (1200 degrees Centigrade) to activate many synthetic reactions. Rainstorms were intense and frequent and the sky was clouded with volcanic ash. Thunderstorms took place almost continuously; massive amounts of energy were released.

Short-lived radioactive elements were decaying, raising the temperature in the Earth's interior and contributing to volcanism. Surface background radiation would also have been high relative to modern levels. Radioisotope irradiated mixtures of methane, ammonia, and water can produce biologically related compounds. Once formed, these and other organic compounds could be degraded by the ultraviolet radiation, or, further synthesized.

Internal temperatures increased because of radioisotope decay and gravitational compaction and influenced a drastic reorganization of the Earth's semi-molten interior. Metallic iron and nickel, which earlier had been mixed with other minerals in the outer layers, reformed to produce a molten iron-nickel core over which the new mantle and surface crust formed. Very little change would take place with the Earth's core from this point to the present.

Since core formation removed much of the metallic iron from the upper mantle, volcanic magmas consisted mainly of metallic and silicon oxides, such as MgO, SiO₂, FeO, and Fe₂O₃. Gas mixtures at high temperatures of 600 to 900 degrees Centigrade, in the presence of various metallic ore catalysts would produce a variety of organic molecules including hydrocarbons, sugar precursors, nucleic acid bases, fatty acids, and reactive intermediates. Even shock waves, such as those produced by meteorite impacts could have interacted with gaseous components to lead to the formation of amino acids and reactive intermediates.

Volcanically released gasses would have included hydrogen, water vapour, carbon dioxide, carbon monoxide, hydrogen sulfide, sulfur, sulfuric dioxide, and others. A proportion of these, depending upon fluctuating heat, pressure and the proximity of other elements, would have formed chemicals including hydrogen cyanide, formic acid, acetic acid, dicyanamide, and glycine which may have formed into small reactive organic compounds such as amino acids, pyrimidines, purines and fatty acids. Atmospheric oxygen increased substantially at this stage, relative to its almost absent presence earlier - yet it was still tiny by modern volumetric presence. From this point, water would be 40 times more abundant than hydrogen in the volcanic gas compositions; carbon dioxide would have become 40 times in excess over carbon monoxide; nitrogen continues to be emitted.

Hydrogen would have been a major component of volcanic outgassing. Chemical reactions would have been the dominant form of change and since chemical reactions are reversible depending upon the environmental conditions, these changes would have been frequent. Earth's gravity would have been inadequate to retain the lightest elements, hydrogen and helium, from rising to the outer altitudes above the surface of the Earth. There, the predominantly hydrogen concentration would diffuse steadily into space.

As a mass, the Earth would be travelling around its Sun in the 1900s at a speed of 18 miles/second (29 km per second).

3.0 Billion (3,000,000,000) B.C.

Sedimentary rocks began to appear at this stage as a result of the crustal formation and continuous rainstorm activity. Ponds, pools and seas have already formed by the condensation of volcanically-vented steam. Only crystalline rocks had formed previously. Photo dissociation of water, by the intense ultraviolet radiation split higher altitude water vapour into free oxygen and hydrogen. As the lightest and simplest element known to humanity, hydrogen continued to diffuse into interstellar space while the highly chemically oxygen combined with rock elements to produce such combinations as carbon dioxide.

2.6 Billion (2,600,000,000) B.C.

Polymeric molecules begin to form. Composed of combinations of acids or sugars and proteins, these molecules have the capacity to change form according to the environmental conditions. That is, under changes in pH level (degree of acidity in the surroundings), temperature, salinity, and pressure - a clear solution may form into particulate units. Colloidal mixtures of particles disbursed within a liquid may settle out into cell-like aggregations within a more simplified liquid. Many circumstances lead to the formation of polymeric molecules. These include the absorption by sedimentary clays of amino acids, nucleic acid bases and sugars resulting in high localized concentrations of the molecular compositions.

The reaction between high quantities of radiant energy or of electrical (thunderstorm) charges and mixtures of the primary gases present on the Earth invariably produces polymeric molecules in addition to small organic molecules. Electrical discharges travelling through gases to strike a water surface, such as a lake or a sea, forms a tin, oil-like scum of polymeric molecules on the water surface. When disturbed by wave motion, the scum separates into spherules as well as more complex structures.

"Coacervate" systems of combinations of polymers, such as proteins, nucleic acids, and polysaccharides - gain the capacity, when provided with chlorophyll, to convey electrons from one compound to another.

2.494 billion (2,494,000,000) B.C.

Water Presence on the Earth has risen to a level about equal to 15% of that found on the surface in the 1990s. Releases of water vapour (steam) and the chemical formation of water by volcanic processes has gradually provided a humidity about the Earth with pools collecting in the cooler temperatures of higher altitudes. Interaction with the radiation belts above the Earth's surface and with the solar radiations penetrating through to the surface have begun to produce intense ion charge buildups which discharge in the form of lightning. Until a thicker ozone layer builds, many millions of years from now, atmospheric electrical discharges will increase in frequency until a threshold is met, and then, decrease.

As the Earth's atmosphere increases in temperature and humidity, the frequency of lightning will also increase. As the surface waters are warmed by solar energy and underwater volcanic activity, evaporation increases and convection air currents carry the vapour upward. As the vapour rises towards the chill of outer space, it cools and condenses back into water in the form of droplets. As the droplets move through the air, they attract static electrical charges such that at lower altitudes (usually below 8 miles (12.872 km)) they carry a negative charge (negative ions) while at higher colder, "thinner" altitudes (up

to 15 miles (24.135 km)), they become stripped of their electrons and graduate to positive ions. Effectively, an electric battery develops in which 2 "plates" of cloud, one higher and one lower, carry different and increasing charges. When the potential voltage difference between the two "plates" becomes great enough, a plasma discharge occurs which usually results in "sheet" lightning. A 10,000 amp current is an average to small occurrence and is sufficient to light a sky area up to 10 square miles in size. From space, at night, these resemble flashbulbs going off in an overcast region of the sky.

At the edges of the cloud mass, the negative charge carried by the Earth's surface also acts like the negative pole plate of an electric battery. When the upper level of a "thunder" cloud overlaps the lower and extends out over "open" land, it is there that the positive ions of the high altitude become attracted to the negative ions at ground level. This attraction is highlighted by anything small, pointed, or slender which extends up from the Earth's surface. The closer that the charges can easily travel toward one another, the easier it is for them to leap that last gap and join in the brilliant and loud energy discharge of a lightning "bolt." Such a lightning strike can be 30 miles in length (48.270 km) and less than 1 inch (2.5 cm) wide. The shock wave (sound) it generates will often extend for 15 miles and will be heard following the flash by a time period relative to the distance of the observer from the strike. Ground strikes would be unpredictable for location by humans because of the hundreds of dynamic factors involved.

Starting at perhaps an altitude of 5 - 10 miles (8 - 16 km), a discharge would begin travelling towards the Earth. 100 metres (300 feet) later, it would hesitate momentarily, cool marginally and rebuild its charge, strike out again for a further 100 metres - and so continue until "Earth" contact was made. This provides the zig-zag visual nature of a lightning strike. While this dynamic is occurring, a plasma filament (weak line of charges) is also extended up from one or more protrusions from the Earth's surface. It is as if an elastic string formed molecule-by-molecule from each end towards the middle, all the while becoming stronger in tension as it grew. The bottom end is fixed to the Earth so that when the string becomes complete the upper portion immediately collapses and races toward the Earth. As it is partly discharging its tension energy as it travels, it pauses momentarily to rebuild its strength such that its energy impact at the bottom is a fraction of what its maximum is whenever it begins its next leg of discharge. The strength of this discharge is thus capable 50% of the time of killing an animal, or a human, or of vaporizing tree bark and wood.

Ecologically, lightning is most important.

It produces ozone from its reaction with atmospheric oxygen. It also produces soluble nitrogen which falls to the ground in rain droplets and serves as a major fertilizer ingredient for many of the Earth's plant species. In combination with atmospheric gases, water and minerals, it does encourage the formation of amino acids and other compounds required for the combinations of elements which modern humans term "life." Frequency of thunderstorms and lightning strikes per year would vary considerably over the coming millennia.

The Earth's crust would cool and its core would vary in temperature relative to speed of rotation and intensity of magnetic field. The Earth's atmosphere would change in density and temperature depending upon the degree of suspended water vapour (and degree of cloud cover) and the thickness and integrity of the ozone and other protective and heat reflecting layers. By 1996, at least 2000 thunderstorms would be active at any one time over the Earth's surface, down from a previous high of 10,000 and up from a low of zero. 2000 thunderstorms X 365 days X 24 hours X 3 per hour X 3 strikes to ground would represent almost 160 million massive discharges per year. If taken as an average, the total for 2 billion years!

2.4 billion (2,400,000,000) B.C.

Viruses begin to be present on the Earth this stage of Earth's history. Composed of complex combinations of chemicals and minerals which have combined to form large molecules of matter, they are neither considered alive nor dead. They do not enclose materials which are inter-related and reactive enough to independently provide the collection of functions required for reproduction. Proteins are substances which coalesce from metallic or other ions. They are required for standardized elemental transformations to take place through processes which share similarities to catalytic induced chemical reactions, ongoing accumulative or reducing functions or energy producing interactions.

They are like the lead plates in a lead-acid battery: remove them from the battery and the capacity for power generation halts. Yet with their presence and an interconnectiveness between the protein mineral base (itself in contact with nucleic acids) and another biological unit, electrical power excitation can be transferred to the secondary unit and there potentially initiate or sustain new catalytic or other dynamic biochemical activity.

Proteins will become important to biological function yet they are not part of the biological structure. That is, minerals act to enable biological function. Viruses represent a protein-coated membrane enclosing nucleic acids. They are like a battery without a motor to drive. They are biological units rather than systems.

A typical virus is composed of DNA (deoxyribonucleic acid), or RNA (ribonucleic acid) surrounded by a protein coat. Both DNA and RNA are molecules that contain genetic (standardized, consistent, predictable strings of biochemical reactions) information in the form of a code. In effect, a virus is a packet of genetic material in a protective capsule. It is a plan without a purpose. That purpose will depend upon with what other biological units it can inter-relate and what the result of that inter-relation becomes.

Like an individual computer instruction which turns on or off specific hardware circuitry, the capability of a virus depends upon where its placement is within the "program" of the biological system. If it is in a position such that its function has no inter-relatedness to the

other instructions surrounding it, its individual inertness remains unchanged: it has no influence; it goes unnoticed. If it does inter-relate with the programmed instructions in the subprograms which surround it, a contribution is made to the result of the activation of those programs.

Viruses are not cells in the sense that cells have a complex of function subprograms which enable a "system" of activities to be performed. Viruses are not quite cells and their forms may be various. Viruses may even take the form of crystals. Viruses have been found embedded within meteorites which have just landed on the Earth. This is how viruses first came to appear on the Earth.

Typically, humans consider life forms "alive" if they are capable of and appear to initiate movement and interaction with their surroundings. Humans largely consider any life form beyond this classification as either inert or dead. Viruses do not easily fit this perspective. Once formed, viruses simply exist until they come in contact with even more complex life forms: cells. That is, a virus appears to be just a nonliving combination of chemicals that can be frozen or crystallized with no harmful effects.

A virus may survive for years, even centuries or millions of years in this inactive state. It may even float around in space on specks of dust, unharmed by cosmic radiation; even having the potential to have its capability for interaction modified by such radiation much the same as cold temperatures tend to slow Earth-based chemical reactions compared to those taking place in very hot temperature environments. Viruses are more elemental structures than bacteria, fungi, and cells; they are normally found within each.

Viruses (Latin for "poison") are typically very small by human standards, most are much smaller than bacteria. The smallpox virus is one of the largest - 1/100,000 inch in diameter, about 1/4th the size of any bacterium. A hundred million crystallized polio viruses could cover the period at the end of this sentence. Remember this: Where there is life, there are viruses; the presence of a virus does not indicate a presence of life. Viruses are like an astronaut in suspended animation: nothing may change until the appropriate "key" activates them by including them in a dynamic system.

A virus is like a parasite in that it relies upon the existence and contact with a more complex lifeform to bring it to "life." Viruses contain a fundamental form of patterned intelligence within their biochemical structure. They may contain a strand or two of RNA, a basic building block of cellular lifeforms. When viruses come in contact with other lifeforms, they respond with behaviours which are predictable according to the reactive sequences which are part of their structure.

Viruses only interact with lifeforms which share some biochemical factor or element of composition. It is this "likeness" which both attracts the virus and the cell together and which fools the cell into inviting the virus into its abode. A virus cannot be readily identified until it encounters a lifeform with which it can interact; it is like a booby-trapped explosive waiting to be triggered by just the right stimulus.

Viruses cannot usually "live" long outside of a host.

The AIDS virus dies in 20 seconds. At the other extreme, no one has found how long a Marburg virus remains fully potent - at least 5 days in water - potentially hundreds of years if not exposed to sunlight. Ultraviolet light is effective at destroying what humans regard as life.

Every cell is surrounded by a membrane made of protein and fat molecules which form into particular shapes. All the materials that must enter a cell for it to grow, reproduce, and perform its function must dovetail into the shapes in the cell coating. No match, no entry. Viruses usually infect only one type of cell, the one which its shape unlocks the entry into. In some cases this function is much like that of recognizing the image of a friend at the door, unlocking the door and inviting the apparent friend inside.

A virus which has entered another lifeform which is advantageous to it, will begin to interact with the contents of the host. It will, as it were, feed upon the same food which the host utilizes - only it may do so in a more effective manner. As it feeds, the virus will utilize its new interactiveness to activate reaction processes within it which are patterns sometimes referred to as programs. One such program is the duplication of itself into more units: reproduction. The virus may multiply itself within a cell until practically the whole of the cell becomes occupied with virus and the internal cellular pressure becomes too great for the cellular membrane to contain: the "skin" breaks and the viruses flow out - in search of new contacts, leaving the original cell dead.

At other times, "recognition" is not as positive, yet it could be said that the doorkeeper is adequately deceived to neither open the door nor sound an alarm. This may be out of the patterned assumption on the doorkeeper's part that if the door is not unlocked, then the cell is protected. Some viruses are more aggressive than others and simply being allowed to "hang around" beside the cell can lead to tragedy. For these viruses, being allowed to attach themselves to the cell wall provides them with the opportunity to sabotage the cell. Finding a crack in the armor, the virus inserts a "needle" into the cell and injects genetic material through it.

The genetic material is like a group of new students or workers being registered at a day care centre or volunteering for work in an office or factory. Like regular personnel, they are familiarized with the routine and functions of the cell, and arrangements are made for their nourishment and housing. The difference between these students-workers and those of the cell is that these modify the functions of the cell, kill off (and consume) original cell workers, take over the factory, and, turn a colony into a new state in which viral progeny become the only inhabitants. Reproduction is much more rapid for the viral progeny and soon the new civilization has overpopulated the new utopia to the point where the cellular wall literally breaks open under the pressure. Free, the viruses now seek new cells to invade.

Described differently, with a different cell structure or style of viral "program", viruses may "bud" or project themselves through the host "skin" until they break through and

fall outside the host. If the virus is "activated" sufficiently by the lack of discrimination of the host lifeform, by the lack of defense of the host lifeform, and by the energy (food) benefit of the host lifeform - it will reproduce quickly, exhaust the energies of the host, and, destroy the host. Destruction of the host - without another host close at hand - returns the virus to the immobile state. A virus can travel through space, survive entry through the Earth's atmosphere on a meteorite, and survive the impact and explosion which may be associated with landing: a virus is practically indestructible.

The human body is first protected against viral invasion by the outer layer of skin which is composed of dead cells. Viruses do not interact with dead matter. If the skin is stretched, torn, scratched, or torn - viruses can enter. Human saliva and tears are natural antiviral agents that protect the eye and mouth openings from viral intrusion. The mucus lining in the human nose and mouth traps viruses like a sticky paper traps dust or insects. In the bronchial tubes, and nose thousands of tiny hairs called cilia sweep upward, moving the mucous-trapped viruses into the throat where they are swallowed, or, down the nose, where discomfort encourages their being sneezed out or blown out. Tobacco smoke, air pollution, certain toxic chemicals, some drugs and dry air all serve to decrease the healthy activity of the cilia and increase the likelihood of local viruses gaining entry further into the human body than would be possible with a less compromised lifsystem. Most viruses can't survive stomach acid so those which are transported there usually die.

For those viruses which bypass or survive dead cells, cilia, saliva, tears, and stomach acid - the human immune system consisting of trillions of aggressive patrolling white "lymphocyte" cells serves to attack any form of life not genetically similar to their host human body. Some of these defensive cells are located in the blood stream; others are located in specific organs such as the tonsils, liver, spleen; still others are located in lymph nodes situated around the body at sites such as in the neck, chest, groin, and armpits. Special lymphocytes called "B" cells are biologically patterned to seek out any "foreign" lifeform and fashion antibodies to destroy it.

Some insects are capable of modifying the genetic code of their offspring when an attack is suspected. Within the human, the B-cells fashion new attack cells which are targeted to destroy only the genetic structure of specific invaders. Thus, antibodies for one virus are ineffective against a second type. Each new form of invader must have its own "personalized" opponent. This specialization limits the product of "general purpose" antigens which could mistakenly identify human cells as the enemy and attack them. Such a consequence of confusion, disorientation or desperation would result in the creation of a cancer. Ordinarily, it takes B-cells 5 to 7 days to generate enough antibodies to fight a virus. Then the person's health may begin to improve.

Viruses which have entered the body and entered target cells are protected from lymphocyte-generated antibodies. Now hidden behind the human cellular wall, the antibodies cannot sense the presence of the virus behind the acceptable biological code of the human cell. Another human "defender" cell, programmed in the thymus gland and called a "T"-cell, are capable of sensing viral cells within human cells. Having done so,

they "target" the infected cell for attack by another form of immune system defender, the phagocyte, that is "cell eater." Phagocytes engulf and digest the "highlighted" viruses much as a scavenger would target a protein for food and eat it (the virus is covered in protein).

Cells attacked by a virus release a chemical called interferon. Tiny amounts of interferon inhibit the ability of most viruses to reproduce and generate more viruses. Interferon does not kill viruses, it just stops them from proliferating into greater numbers and higher densities.

Once T-cells and B-cells have bioengineered the appropriate phagocyte defenders, these new biological lifeform codes are retained in readiness for possible future invasions. In most cases, a subsequent invasion by the same form of virus will be met almost immediately by personalized antibodies. There is no 5-to-7 day delay this time. Residual antibody presence, from which new supplies are made may remain in the human body for years or even as long as the person stays alive. Vaccines are killed or weakened viruses which stimulate the production of antibodies and enable the construction of an immediate defense against highly destructive potential viral invaders.

In a first encounter with a virus or other agent which stimulates delayed hypersensitivity, it is often a race between multiplication of viruses and production of antibodies in the form of sensitized lymphocytes. In the case of some viruses this is truly a life-and-death race. When a second encounter with a specific type of virus takes place, there is already a significant population of sensitized lymphocytes in the circulation and these can fairly quickly multiply so that a high level of antibodies can be reached before the virus has multiplied very much.

2.3 Billion+ (2,309,994,800) B.C.

Bacteria, one of the earliest forms of vegetable matter, as classified in 1924 in the *Winston's Encyclopedia*, or, more simply, a form of living matter - begin to appear at this time. Single-celled and of various shapes, they consist of a mass of protoplasm enclosed in a membrane. Cilia, which look like moving hairs on the outside of the membrane serve to provide movement of the cell through whichever fluid the bacterium is in. Reproduction is asexual and by cell division.

As one of the first lifeforms on the Earth, it was the first matter which integrated chemical interactions in such a manner as to enable absorption of external simpler materials into itself, process those materials into complex strings of genetic instructions, expel the unnecessary ingredients and byproducts of this process, and, reproduce duplicate structures of itself.

Cells are formed as local aqueous environments enclosed within a membrane. Within these boundaries, biosynthesis can effect organizing and segregating functions as well as stabilizing the results of biochemical reactions - functions which are extremely difficult to sustain in an endlessly changing environment of massive proportions within which all Earth-based dynamics are occurring. While a membrane may be formed from any "skin" of connective scum which forms on the surface of a liquid, the closure of such a skin so as to contain an inner environment is one of many occurrences which should inspire reverence.

The natural internal movements or currents within a liquid exposed to the factors of the Earth environment (pressure, wind, radiations, temperature, ...) sharply limit the size to which individual cellular units can be formed. Yet the minimum size of such cellular units cannot be smaller than that required to house all of the elements required for reproduction at some point. Without this latter capacity, an active lifeform does not exist for it is capable of no more than chemical reaction, formation and dissociation in direct response to environmental conditions.

Without beneficial bacteria in the digestive tract and other areas of human and animal bodies, such more complex lifeforms would not survive. In humans, a variety of bacteria are required for the predigestion of foods into nutrients which humans can assimilate. Destructive bacteria can induce both short-term and chronic illness, acute disease, and result in death.

If such bacteria penetrate the human skin, say via a cut or open wound, and gain entry into the circulation, antibody production is begun. If this particular bacterium has been encountered before, the immune response can be quite rapid with a resident antibody attaching to the wall of the bacterium. The result is that the bacterium is either torn apart by the antibody, or, the shape and the characteristics of the bacterium are changed such that human immune system hunter cells, called phagocytes, recognize the bacterium as a new prey. Phagocytes look for disabled protein which is separated from a healthy host. They are like a cleanup crew which picks up the wounded, dead or dying - and dispose of them, or, like a predator which once it can recognize a prey - approaches it, captures it, and consumes it.

Some bacteria commonly found in the human bowel have antigenic characteristics which are similar to certain human blood groups. This can result in an individual developing antibodies to other than the resident blood group even though the person may never have been exposed to such a blood group previously. If bacteria are introduced into the human body (i.e.. beta-hemolytic streptococci: strep throat), antibodies may form which cannot distinguish between the bacterial infection and an organ (i.e.. the heart) tissue. The result can be another illness (i.e.. post streptococcal rheumatic fever). Changes to cells and antibodies produced by the presence of a foreign or mutated resident bacterium or virus can lead to cancer: the immune system attacking its host - you.

2.3 Billion (2,300,000,000) B.C.

A single-cell plantform called algae begins to multiply. Able to grow and thrive in volcanic hot springs, various depths of sea water and in waters with high mineral content, algae would thrive on the surface of the Earth. That surface currently had a shallow layer of water (average depth of 165 feet and a temperature averaging 85 degrees Fahrenheit) over a solidifying rock crust with a small amount of land jutting above the surface (10% of that present in 1996).

There was no ozone layer to restrict the entry of ultraviolet radiation and current levels of cosmic ray and x-ray exclusion from the Earth's surface were still small relative to those of 1970. The gravitational field of the Earth become strong enough centuries before to shield the Earth against the solar wind particles streaming past from the Sun, and, an ionospheric shell had begun to develop as a consequence of this interaction. Algae had optimum environment and no predators: multiplication would grow to geometric progressional proportions (constantly speeding up faster). They would provide a constant and increasing supply of oxygen to the Earth's atmosphere.

It would be longer than 1500 million more years before more complex plant forms and elementary animal lifeforms would begin to appear. Well-defined human existence has only lasted for 6000 years, that is, .0006 million years. Evidence of vaguely human-like lifeforms dates back as far as 1.8 million years.

How important is plant life to the survival of other lifeforms on the Earth? If all plants were removed from the Earth, very rapidly all the free oxygen in the atmosphere would be used up by other lifeforms, meteorological processes, and industrial activities. Eventually, even the free oxygen stored in lakes and seas would be depleted. Oxygen dependent species would die. Only certain unique forms of bacteria and lifeforms located in the deep oceans near to constant volcanic activity would survive. Without oxygen, decomposition would decrease and nutrients would not be returned to the soil to allow for the birth and growth of new life. Free oxygen became available largely through the metabolism of photosynthetic blue-green algae. The ozone ultraviolet radiation shield around the Earth would take 2,200,000,000 years to develop - 585,000,000 years B.C.

The presence of oxygen encouraged the development of more complex lifeforms. In the Earth example of life, the greater the proportion of oxygen in the atmosphere, the greater the complexity the surviving lifeform can become. Remember this, as the Earth's proportion of atmospheric oxygen decreases, the most sophisticated oxygen-dependent lifeforms will be forced to struggle to survive.

2 billion (2,000,000,000) B.C.

At Oklo in the Haut Ogoue region of Gabon, West Africa, a spontaneous nuclear reaction went on for a long time. Uranium deposits in the area have a below normal concentration of U-235 relative to U-238. Acting as a chain-reacting water-cooled nuclear reactor, it may have reacted intermittently for 14,000 to 70,000 years. The richer the ore found at this site, the lower the concentration of U-235.

The explanation is that intermittent reactions produced plutonium-239 from the U-235 which decayed into U-235 which has a life of 0.7 billion years vs 4.7 billion for U-238. Other evidence for the chain reaction includes the presence of rare earth metals - neodymium, samarium, europium, and cerium. Uranium is known to deposit with organic material from lakes and oceans. Minerals containing uranium often decay into helium and lead. The deposit is free from neutron absorbing cadmium and boron and lies in water-saturated limestone. The 10% uranium concentration of the ore is comparable to that used in light reactors today.

1.3 billion (1,300,000,000) B.C.

Rocks recovered from the surface of Mars in the latter 1900s would be dated to this era. If a meteor measuring 1/10th of a mile in diameter was travelling at 16,000 miles/hour, as they often do, and hit the surface of the planet Mars at an angle, it would vaporize enough of itself to produce a blast of hot gases which might travel at 50,000 miles per hour and could accelerate rocks to a velocity of 11,300 miles/hour - enough to escape the gravity of Mars. The atmosphere and gravity of the Earth would retain both the rocks and the energy generated.

1 billion (1000 million) B.C.

A deposit similar to the Gabon, African one exists at Cluff Lake, Saskatchewan, Canada, where there is a large deposit of uranium ore. It is surrounded by wet sandstone; it is mainly uranium oxides, pitchblende and carnotite. These "deposits" occur when miniature nova-like remnants strike and become imbedded in a heavenly body, such as the Earth.

Novae are stars which explode, blasting their outer layers into space with immense force while rising to immense brilliance for several days or weeks. Stars, and our Sun, are like nuclear reactors. With billions of these masses in operation in our known universe, and with the stars being subject to mass attraction and repulsion forces exerted by other masses - which are always changing their relative position to and distance from - the star, very occasionally, a star will experience a short "scram". In other words, the apparently largely consistent operation of the nuclear star reactor becomes erratic. A nova

"experience" will permit a "cleansing" process allowing the star to return to a relatively "balanced" operation by an expulsion of part of its mass. This nuclear "slag", dispensed in all direction, like a spray, at tremendous velocity, is likely to have one or more pieces of the nuclear material impact objects in the near vicinity.

Such a relocation of the material has the potential to create miniature relative-to-the-Sun "low"-energy producing reactors until their nuclear material is diffused by combining with the native ores of the new environment and/or reduces in strength due to the "life" of the fuel. The existence of these two large deposits on the Earth suggest that at least once every billion years the Sun goes through a temporary "nova" stage during which the Earth is subject to slag debris impact as well as to the temporary and searing fire-wind from the increased brilliance and heat output of the Sun. If this cycle is correct, the next outburst is due now (within the next 3000 years, from 1995).

1 billion (1000 million) B.C.

The level of Ultra-violet Radiation reaching the Earth's surface at this time is more than 1200 times the level present in 1920 when the ozone layer was near its peak density. Ultra-violet radiation enhances the mutation frequency of most Earth-based lifeforms. High strengths of U/V both endanger health by "sunburning" and increase cell mutation rates allowing for a multiplicity of lifeforms to develop. The Earth's atmosphere at this time is extremely deadly for most lifeforms for this reason and underwater and subsoil variations of life represent those most advantaged.

572 million B.C.

Multicellular lifeforms begin to form. With the increasing concentration of free oxygen in the atmosphere from single-cell photosynthesis, now raised to 4.25% by volume, an ozone (O₃) layer is forming which greatly reduces the volume of ultra-violet radiation which reaches the Earth's surface. Intense concentrations had earlier encouraged chemical reactions; they also contributed to biological limitation through degradation ("sunburn").

Without this development, terrestrial and multicellular lifeforms could never have developed as they have. It has taken almost 500 million years to develop to this current level. Any time this layer is degraded, so also most Earth-based "surface" lifeforms would be diminished in vitality and presence. Chlorofluorocarbons introduced into the atmosphere by humans during the period 1950 to 2000 A.D. would produce a thinning effect by each molecule of CFC "capturing" up to 1000 molecules of ozone. The longevity of this form of reaction would range between 40 and 60 years: the greatest decline in protection from ultraviolet over-radiation would occur between 2020 and 2060. By 1996,

average non-polar radiation levels had increased by 150% over industrialized regions.

It should be noted that 1,700,000,000 years of microbial and single cell combining preceded the formation of multicellular life. Land had to be formed. Water had to condense. Protective radiation and ozone atmospheric belts had to form.

435 million B.C.

Gymnosperms (Greek: "naked seed") becomes a new lifeform.

Largely representing woody perennial and coniferous plants, their diversity would expand to 800 species of which 600 would be conifers. They represent the oldest and largest multicellular plantforms. Most are cone bearing. That is, tiny male cones produce pollen which is carried by the wind to female cones where fertilization takes place. Naked exposed seeds form between the scales of the female cones and drop to the ground when ripe. In 1990, they would represent 30% of the forested areas of the world and would be one of the few multicellular plant lifeforms to have survived all of the intervening weather and climate catastrophes.

Examples include seed ferns, gnetals, cyads, ginkgo or maidenhair trees, pines, firs, spruces, balsams, yews and the like. Modern products made from gymnosperms for human use include timber/lumber, turpentine, tar and rosin.

387 million B.C.

Animal Life begins relatively suddenly on the Earth.

A large comet "water bombs" the Earth adding a quantity of water to its ecology. The Earth still has little protection from full strength solar-sourced ultra-violet radiation: its influence on cell mutation is 1000 times greater than 1996 exposures.

The Earth passes through a Comet Cloud with the rest of the Milky Way Galaxy. The comets have arrived as a consequence of a periodic passage of a "comet cloud" through which the Milky Way Galaxy moves, of which the Earth's solar system is a minor part. Most other planets in the Solar System are insufficiently stable or have surface temperatures which are constantly too hot to sustain the water molecules in a physical form: the molecules are swept away by the inertia of the cloud as it passes the planets. This cycle has and will continue to occur on a frequency of once every 43 million years, approximately. Previously, the Earth has been too hot or too unstable to capture much of what has impacted the Earth from such a cloud.

While the solar system passes through the cloud on a frequent cycle relative to the age of

the universe, the potential for substantial comet impact is relatively small and irregular - perhaps as small as 1 in 200 passes. Those "hits", statistically, can be as often as twice in 2 passes or as infrequent as twice in 400 passes, or, any combination between. The comet cloud is part of a larger cloud of interstellar matter through which the Milky Way passes; the latter will first be reported publicly in 1996 as an extension of studies conducted by Priscilla Frisch, a University of Chicago astrophysicist, through the American Astronomical Society.

Perhaps 2% of the Earth's modern water volume is added now, raising the total present to 17% of modern volumes. It is retained by the developing atmosphere made possible by the surrounding magnetic shield and the radiation absorbing and deflecting shells developed below that shield. Eventually, a tempering of the temperature fluctuations of the surface which had been dramatic previously depending upon whether it was the sunlit or darkened side of the planet, takes place. The Silurian age begins.

The deposition and separation of the newly arrived substances into oxygen, water, snow, and clouds takes the very short period of less than 125 years. The interaction of the Sun's plasma fields of cosmic radiation, the Earth's magnetic field, volcanic dust dispersal and the humid envelope of oxygen rich gases continues to create intense electrostatic relationships between elements in the atmosphere and between them and the Earth's surface. Intense lightning combines with the soluble Earth chemicals to produce high fertilizer levels and more lifeforms develop within the first 100 years.

The lifeforms most advantaged by the change of circumstances to proliferate are the already present algae. Fungus, ferns and simple fish forms also gain existence. The development of Earth forms of life will be closely tied to the influence of the pass of the Milky Way through the 'Comet Cloud' every 43 million years. Previous passes before 387 million B.C. were largely unimportant because the Earth's solar system was too young. Subsequent passes will NOT provide identical results for in passing through the "cloud" there remains a certain randomness of interaction with the comets because the comets do not occupy regular spaced intervals or exist in a constant and regular density. The following is an outline of the comet cloud cycle relative to the Earth:

Age	Water	Millions BC	Deposited	Age	Resultant	Lifeforms
2494	Total					Precambrian Single cell forms, Algae
49	(43)	15%				
387	17%	2%				Silurian Algae, cartilaginous fish, insects.
(43)						(impact/Shift)
344	22%	5%				Devonian Algae, fungus, ferns, grass, simple fish,
(43)						(multiple impact / Shift) insects.
.						
301	.	22%	0%			Carbonif. Algae, Ferns, Grass, fungus, fish, insects,
(43)	.					(miss) amphibians.

258 . 22% 0% Permian Mosses, Ferns, Fish, Amphibians, Grass,
 [117]. (miss) insects, reptiles, fungus, algae.
 227 - - - - - Maximum magnetic field change period.
 (14)
 [an impact at this point cuts short the longer cycle of 351 million years,
 occasioned by the size and focus of the multiple Devonian impacts]

215 . 32% 10% Triassic Gymnosperms, Palmferns, Fish, Reptiles,
 . (Impact/Shift) Amphibians, insects, grasses, mammals,
 (43). fungus, algae, mosses, ferns.

172 . 32% 0% Jurassic Gymnosperms, Palmferns, Reptiles, Cartil.
 . (miss) fish, insects, mammals, amphibians, birds,
 [68]. 1/3 fungus, ferns, grasses, algae, mosses.
 147 - - - - - Minor - - - - - Maximum magnetic field change period.

128 49% 17% Cretaceous Reptiles, Gymnosperms, insects, cartilaginous
 (multiple impact / shift) fish, bonyfish, birds, mammals, amphibians,
 (43) fungus, algae, mosses, ferns, palmferns.
 96 60% 11% Cret/Tert Insects, Mammals, Gymnosperms, cartil. fish,
 (impact/SHIFT) bonyfish, reptiles, amphibians, birds,
 fungus, algae, mosses, ferns, palmferns.
 64 - - - -Mini-Sun & - - - - Maximum magnetic field change period.
 Asteroid
 43 82% 22% Tertiary Insects, Mammals, cartil. fish, bonyfish,
 (multiple impact / shift) amphibians, reptiles, birds, fungus, algae,
 mosses, ferns, grass, palmferns, gymnosperms,
 angiosperms.

250 million B.C.

Mammal-like Reptiles develop from the expansion and diversification of the reptile family which have been dominant since 300 million B.C. These lifeforms take an upright stance, become more warm-blooded than their ancestors, and develop slicing and grinding teeth in addition to the more standard reptilian fangs. Some species will have long, sabre-toothed jaws capable of crushing and crunching bones. In frequency and fit in the ecology, they would take the place of modern mammals. Some would live alone or in pairs in underground burrows constructed with a spiral vertical structure to provide an enhanced air flow. During times of flood, some of these would drown in their burrows. Others would congregate in herds. Their size would vary between that of worms to the modern domestic cat and a cow. They would become more omnivorous than other existing lifeforms.

The ratio of mammal-like reptiles to their herbivore prey would be about 1:60; comparable to the ratio of modern (1900s) carnivores to herbivores. The Boxhead reptile would be one

example. *Lystrosaurus* would be another. The latter had 2 eyes in the top of its head, tusks, was efficient at grinding tough plants, weighed 200 to 600 pounds, was the largest mammal-like reptile, and, was found everywhere in the non-submerged landmasses. This distribution made it markedly different in habit from reptiles which tend to evolve slowly and steadily and to develop ritual-like fixed habits of behaviour and territoriality.

Reptiles survive by maintaining what has proven to be effective behaviours within what has been demonstrated to be a safe environment. As long as their home environment does not change, they will survive - regardless of what happens elsewhere. Mammal-like reptiles were much more flexible and innovative in their habits and willingness to change territories.

Lystrosaurus, which was not a dinosaur, was similar to a modern day walrus with legs and feet and a tail. Most other predators of the era were little more than 2 pounds in weight. About 224 million B.C., *lystrosaurus* went extinct in the known records. 95% of the then existing animal lifeforms became extinct in the global turmoil which followed. Of those species surviving, only .75% would still be represented in the 1900s.

Before the Great Change, much of the Earth's landmass was a singular continent later known as Pangeia ("all land"). Very little evidence of the ecology of this age of the Earth would survive into modern times because of the catastrophic changes which would occur beginning in 224 million B.C. Massive geological faulting, continental separation and drift, crustal uplift and decline, meteor impacts, volcanic overflows, erosion, decay, earthquakes, floods, ice ages, and human topographical changes would contribute to effectively erasing the record of the more recent developments of longer ages of stability, and, like in this age, would almost completely erase the evidence of the age altogether. The evidence of this age and of these beings would not be discovered by humans until the late 1900s in the Karoo Basin, a 2000 square mile flood plain desert in South Africa. Remember this: the most sophisticated lifeforms existing immediately before a major adjustment of the Earth's crust and climate are unlikely to be of evidence in the sediments and rocks present in much later eras.

With a heavy mass core a massive volcanic eruption in what in the 1900s is Siberia released a considerable amount of carbon dioxide into the air while at the same time consuming vast quantities of oxygen. Atmospheric dispersion of volcanic ash and dust effectively darkened the northern 2/3rds of the planet for a period of almost 100 years. At first, this produced a rapid alteration of the climate with near surface temperatures plummeting dramatically while upper atmosphere temperatures began to rise. A considerably reduced availability of sunlight including ultraviolet radiation as well as infrared radiation diminished plant growth and altered the biological cycles of non-reptilian and non-insect lifeforms in particular.

A devastating extinction of species resulted from inadequate densities of oxygen, plantfood, light, heat - together with increased localized toxicities of noxious gases and compounds. Biological lifeforms weakened by these challenges also became susceptible to viral diseases

whose success was encouraged by the changes in climate and atmospheric composition. Only the modern alligator and crocodile reptiles would represent surviving larger lifeforms into the modern era. Their patterned behaviour of stabilizing them in rigid home territories assisted in safeguarding them from the geological and biological disturbances which reoccurred in numerous locations until the global mass restabilized.

2,400,000 B.C.

Asteroid Major disruption of climate

1,565,000 B.C.

Meteor Major disruption of climate

906,000 B.C.

Meteor Major disruption of climate

698,000 B.C.

Asteroids Major disruption of climate

395,000 B.C.

Meteors Major disruption of climate

80,000 B.C.

Meteors Major disruption of climate

30,000 B.C.

**100% 18% Quaternary
Insects, Bonyfish, Birds, Mammals, humans
(multiple impact / shift)
Angiosperms, Grasses, cartil. fish, algae,
fungus, ferns, palmferns.**

**Passage through the Comet Cloud occurs once each 43 million years.
"Deposited" refers to the amount of water "captured/water bombed" by Earth.
Capitalized names indicate lifeforms which are more plentiful than uncanceled named
lifeforms.**

**Meteors weighing over 100 tons at the time of their impact with the Earth's atmosphere
are travelling at such high speed (6 miles, 10 km per second) that the conversion from
potential to kinetic energy produces enough heat to vaporize the rock mass. Larger
meteors which impact the Earth's crust convert so much energy into heat in their abrupt
reduction of speed and in their production of a huge crater - partly by impact force, partly
by the explosive influence of vaporized metals and rock - that the result may be as
destructive as that of hundreds or thousands of hydrogen bombs 10 to 100 times larger
than the atomic bombs dropped on Nagasaki and Hiroshima in 1945.**

**While variety continues to grow until modern times, particular lifeforms are more
advantaged at some times than at others. In addition, the strength and nature of the
impact of the comets, whether singular or multiple and whether near one point of the
Earth's crust or scattered about the surface, determines the amount of crustal shift and the
change in magnetic pole orientation, if any.**

**The physical influence of the comet storm impact(s) may result in a movement of the
Earth's surface, and the Magnetic Poles, the distance of which movement is relative to the
vectors of the impact. With the internal and interlayer inertial forces involved, about
2/3rds of the geomagnetic change occurs within the first 1/3rd of the cycle duration as
indicated by the force vectors. During the first 1/3rd of the cycle, force dissipation
"pushes" the change. During the latter 2/3rds of the cycle, the changes are more of a
slowing nature of "coasting" to a point of equilibrium. Most of the time, the final part of
the cycle is interrupted by an impact and new force vectors from the next pass through the
Comet Cloud.**

**Consider that the "physical" crust or surface of the Earth covers a liquid sphere. If the
"skin" is impacted at an angle, as is usually the case, the skin or covering will absorb most
of the impact and will twist or slip in its relative position on the sphere. The liquid centre
of the sphere will receive little of the impact and its inertia will seldom result in a marked
change in its turning position or in its spacial position relative to other planets. As the**

crust is jogged in position, the geographic pole location on the surface, relative to the heavy fluid magnetic core source, changes. We have a magnetic pole shift. It is not so much that the pole has shifted as it is that the surface has shifted relative to the pole. Major surface reference point changes in the geographic magnetic pole may result in substantial disorientation and death of plant and animal lifeforms; some lifeforms are more critically influenced by such a change than others.

Grasses tend to multiply under the influence of human destruction of forests and cultivation and intensive farming of lands. Longer periods of electrical atmospheric activity (lightning) combine considerable amounts of nitrogen and oxygen with rainwater to result in a rich fertilizer solution which permeates topsoil and influences the upper layer of lake waters. In the 20th century, even with considerable additions of nitrogen fertilizers by humans to benefit agriculture, at least 50% of nitrogen-based fertilizer added to the earth soils will originate from the dynamics of lightning.

350 million B.C.

Insects had begun to appear on the Earth.

Only elementary plant and animal lifeforms have survived longer and as consistently. Humans would know almost nothing about insects until the 1900s. By the end of the 1900s, humans would have named only about 1 million of the then existing 28 million species; they would only understand well less than 1000 species. Insects and plants are valuable survival examples to humans for life on the planet Earth for all larger lifeforms have had a tendency to become extinct.

While insects are dependent upon plants for their survival, reptiles, birds, more specialized plants, many forms of animals including primates and mammals - are dependent upon the benefits of insects. This is because the success of many plants depend upon the pollinating tasks which insects carry out, and the success of animals is dependent upon the abundance of plant foodstuffs and other animals which feed on them. Humans, after 100 years of feverish scientific development have a rudimentary knowledge of the physiology and physics by which insects live. They perform manoeuvres of strength, agility and accuracy which humans cannot even imagine a lifeform of their own size ever being capable of. Some of the design characteristics which have benefited insects, and should be noted, are as follows:

- a) an external skeleton to protect against cosmic and UV radiation;
- b) an inner body which can be sealed off from external toxic gases;
- c) a covering which can protect it from water, rain & moisture;
- d) instantaneous and individual cell access to air and oxygen;
- e) flexible joints and a covering of overlapping transparent plates;
- f) coloration which varies with the intensity of reflected light;
- g) self-generating skeletal material which can be made into tools;
- h) capability to alter its neotany form and genetic function;
- i) spontaneous mutation of coloration for environmental concealment;
- j) enormous power relative to size for propulsion and carriage;
- k) exceedingly sophisticated sound and scent sensing abilities;
- l) high rate of singular and multiple visual capture by eyes;
- m) a variety of communicating mediums and patterns;
- n) capable of population regulation and explosion, together;
- o) ability to "home" in on distant mate or nearby prey;
- p) some can produce sound which is louder than a jet aircraft engine;
- q) able to protect with body poison, venom, and released chemicals;
- r) frequently have sticky pads on their feet to help defy gravity;
- s) some can survive daily freezing and thawing;
- t) may use deception to trap prey;
- u) tend to be obsessively tidy and clean;
- v) may become infected with parasites;
- w) often use the power of many to subdue the few;
- x) are fanatic in defending their home, queen, members;
- y) may cultivate specialized crops for their members;
- z) may totally change physical form several times during life;

Insects can modify or mutate their characteristics 1000 times faster than humans have been able to change. That is, in one or two generations, each of which may live 3 years, the genetically-transferred patterns which determine shape, size, and growth characteristics may change. Humans presume that a possible transformation from a primitive ancestor, almost unrecognizable as being of the same species, has occurred in less than 0.5 million years.

Insects have had 700 times as long as humans and a capacity to change which is 1000 times greater. During that time, periods of higher oxygen and higher air densities have facilitated the growth of insects to sizes giant by the standards of the 1900s - a dragonfly with a 3.25 foot wingspan. The only evidence we have of the earliest lifeforms are those which were weak, or, had few predators, and, fell into cracks or died on sands - which were quickly covered by silt. Larger, or, more successful lifeforms would have either died in the open

and disintegrated by decomposition or by ingestion by another lifeform.

Even possible, would be the development of an insectoid lifeform, that is a large insect-like lifeform of complex social and "intellectual" abilities, which gained the facility to walk upright, if desired. Further, if humans could develop all of their now most sophisticated technology in a span of 5000 years, what would have been possible for an insectoid to develop in perhaps 200 or 300 million years?

344 million B.C.

A Comet Deposition of Water increases the total water volume, relative to modern levels by 5% to a total of 22% relative to the modern total. The combination of the hotter-than-modern atmospheric temperatures and the increasing humidity of the atmosphere create an increasingly dense suspension of water droplets. This thickness of air can be understood as a medium somewhat between liquid water and hot dry air - which remains somewhat constant.

336 million B.C.

Winged Insects appear suddenly at this time with fully formed wings even in the most primitive specimens. The increasing "thickness" of the atmosphere provides a light medium through which "fins" can glide and enables the development of winged insects. Winged insects will become the most "intelligent" of the insect species: more ecologically flexible; more self-directed in bioengineering; more complex in social structure; more aggressive; more industrious in their construction of "nests." With the increasing levels of oxygen in the air, the now exponential accumulative influence of hundreds of millions of years of algae presence and growth, winged insects will grow to sizes unthinkable to humans. A dragonfly will develop over 50 million years to a size with a wingspan of 4 feet (1.2 metres) and a body length of 5 feet.

301 million B.C.

During the Carboniferous Period, the number of insect families increase from 1 or 2 to more than 100. While the the Oort Comet Cloud has passed through the solar system again, no changes or influence has been made to the Earth. Many of the insects become huge because of the environmental advantages benefiting them from a still minimally formed ozone layer around the Earth. The Earth's atmosphere at this time has an oxygen composition of 35%, after a thriving algae and plankton output for over 1500 million

years.

Modern levels have declined to less than 2/3rds of this concentration, due to deforestation, increasing climatic differentiation, increased dominance of animal species including humans, and increased use of fossil fuels and chemicals. During this period, the atmosphere is more dense and has a more fluid capacity. In modern (1996) terms, it is like a medium which is midway between an ocean of air and an ocean of water: an ocean of oxygen-rich vapour.

Simple lifeforms and vegetation are prolific during this period as a result of high constant temperatures and humidity, relative to modern standards, and, high levels of oxygen. The closest modern equivalent would be a tropical rainforest - a pasture, by carboniferous standards. Grasses, fungus, mosses, algae and ferns grew enormous, relative to modern examples. With high penetration of ultraviolet radiation through the atmosphere, there was also abundant levels of death and decay.

Insects, often resorting to building their homes/nests underground or within vegetative structures, are protected from ultraviolet radiation and high levels of heat more than many other modern terrestrial lifeforms. Insects were the terrestrial versions of fishes: they "swam" through the thick air with their wings acting like the fins of fishes - positioning, gliding, and propulsion appendages. Insects breathe by a diffusion of oxygen into their tissues simply by exposure to air circulating past them by virtue of air currents or body locomotion.

Fish breathe by moving through water, or, by moving water through themselves - past their gills. In human terms, gills are like lungs turned inside out and protected by a tissue flap - incapable of independent movement. Remove a fish from its dense medium of water, or, constrain it from movement, and it will die. In a similar manner, place an insect in a vacuum (outer space) or restrict its movement, or, increase its oxygen demand - and it also will suffocate.

As the Earth's atmosphere would reduce in oxygen content over the next millions of years, larger insectoid forms would die off. Smaller ones required less oxygen availability. Elementary plant forms would also reduce in size and more complex plant and animal lifeforms - capable of more efficient utilization of a reducing proportion of atmospheric oxygen - would prosper.

Insectoid neural structures demonstrate the patterns of behaviour of all insect lifeforms: lifeform disposal and subterranean protection. These would be the focal points of behaviour (motivations and compulsions) to be expected of any form of future highly advanced insectoid lifeform. Without either hybridization, or, the development of biological or technological adaptation to provide for a more efficient consumption of oxygen, insects would be preventing from retaining a size large enough to become powerful dominant lifeforms on the Earth.

In a history of not more than 250,000 years, of which only the last 5000 is somewhat documented, humans have progressed from a subsistence level of lifestyle with no technological or social sophistication to a species which explores outer space and contributes at least 45% of their productive capacity to the spiritual non-essentials of armaments, political and corporate bureaucracies, self-medicating entertainment, and other forms of material waste. Indeed, most of the political and technological development occurred over a span of not more than 10,000 years.

During the Carboniferous period of perhaps 43,000,000 years, an "intelligent", self-modifiable insectoid lifeform could have developed capabilities which make modern (1996) human achievements appear grossly primitive. Intergalactic space travel, like many other achievements is not a factor of the complexity of one's technology as much as it is an application of the appropriate technology. If such an intelligent species of insectoids did develop during this period, they would have become aware enough to predetermine the approaching disaster, and leave the Earth.

258 million B.C.

During the Permian Period, the Earth's surface was totally remade of any previous indications of life or habitation except for that preserved in petrified form in rock - compressed sedimentary formations. While the Oort Comet Cloud has again passed through the solar system, the Earth has remained unaffected by it. A dynamic has continued which is devastating to species survival on the Earth.

A reversal of the Earth's magnetic field produced horrendous biological consequences. Magnetic lines of strength provide locational indicators for most Earthly lifeforms. Vegetative species have developed biological patterns which orient the seedling sprouting from a seed such that on emerging from the ground it will face the direction of greatest solar benefit. Birds and other animals also use such magnetic indicators to find and "remember" the location of spawning, breeding, grouping, and residing areas. Dramatic alteration of this genetically induced patterned intelligence is an example of the influence of total disinformation. A bird cannot find its nest. It, and others of its species, fly to "safe" regions which actually prove to be hazardous. Tremendous confusion results. Without the spiritual ability and the biological freedom to evaluate the modified circumstances correctly and follow new strategies and find new alternatives - the likely result is death.

ANY sudden additional changes in environment are likely to enhance the fatality of this confusion by reducing the time frame in which new constructive behavioural patterns are found and developed. If a human travels to Florida with little more than swimwear and arrives only to find that the temperature has dropped to freezing - short term adjustments may be possible. If the reality is one of a long-term consequence, and this is further heightened by a loss of credit, loss of food supplies, and local anarchy for the remaining

available material necessities - the quality-of-life declines precipitously, and, for most, will end in violent death, hypothermia, or starvation.

Swamp plants which had prospered and spewed oxygen forth in the Carboniferous Age now began to die from both overcrowding in the swamps and displacement of water by sludge-built soil leading to more expansive terrestrial regions. Submerged decomposition of vegetation led to increased carbon dioxide generation and reduced oxygen production. Great expanses of swamp gradually became great expanses of what would much later be named tar sands, coal deposits and oil reserves. The deeper, more dense and more "sticky" the swamps became, the more hazardous to life they became and the larger the number of dying grew. The living became endangered by the mass of corpses of the decaying. This process was, of course, enhanced by the disorienting influence of the change of the magnetic poles. Zombie-like, lifeforms followed their programmed travels into swamps and bogs and areas of diminished food supplies rather than completing the migrating tradition of their forebearers to more life enhancing regions.

By the end of the Permian Period, 85% of the pre-existing lifeforms had become extinct. Favoured by conditions of a life-enhancing environment, many could not adapt to the new challenges of less oxygen, territorial confusion, and competition for diminishing swampland which was becoming more bog-like. Those species which were older and simpler and had survived originally with less oxygen, were less stressed negatively - and survived better; those who had become dependant upon the opulence of their surroundings died lingering deaths of slow and horrifying hell. This was the age of the end-with-a-whimper annihilation. What can you learn from it for your own survival?

215 million B.C.

The Earth passes through a Comet Cloud and experiences collisions with a sufficient number of the "water bombs" to result in the total water volume present on the Earth being increased by about 10% resulting in a balance of about 30% of modern day water volume. The somewhat random impact of 5 comets shakes the surface of the Earth back and forth yet does not markedly change the relative position of the crust to the magnetic poles. The increased presence of water results in a greater retention of water in the liquid forms of lakes and oceans than previously.

Cooling of the Earth's crust now begins to be more marked in effect and like the shrinking skin on a fruit, the crust begins to crack and ripple, and pull apart. The increasing integrity of the ozone layer has also contributed to a safer ecology which permits lifeforms to increasingly prosper which have little protection against ultraviolet radiation: mammals. All other lifeforms are protected by their "wetness" (algae, gymnosperms, fungus, palmferns), submergence (fish, reptiles, fungus, amphibians), sheltered habitats (ferns, grasses), or reflective shells and armoured skeletons (insects).

214 million B.C.

The Manicouagan Crater (100 km wide) is formed in Quebec Province, Canada, when an asteroid impacts the Earth. This follows on the passage of the Earth through a comet cloud which has resulted in the sudden deposition of 10% of the water on the Earth in modern times. This solid-form impact produces considerable heat and explodes a tremendous amount of solid material into the atmosphere. A firestorm, emanating from the explosion, decimates everything over much of North America.

For a period of 3 years, the sky actually rains mud over large areas of the northern hemisphere. With the skies so clouded, the atmosphere becomes heated and the land begins to cool considerably. The combination of the heavy suspension of moisture, the heat and the heavy infusion of dust result in a torrential period of tremendous electrical storm activity with a large deposition of both water and sedimentary soil. Ozone, although present in the atmosphere earlier, now begins to noticeably rise in presence and gradually accumulate in the upper atmosphere. Its presence there increases the protection for Earthly lifeforms from the harmful, burning, ultraviolet radiations from the Sun.

By 1995, the NASA Spaceguard Project survey will have discovered 160 asteroids with Earth-crossing trajectories. 50% of them would be larger than 1 km across. Speculations would be made that a reasonable frequency of collision for the Earth with a large type asteroid would be once every 100,000 years. The energy released by such an impact and infusion of matter would be equivalent to the detonation of 1000 10-megaton nuclear weapons. A nuclear weapon of about 15 kilotons in size completely demolished the Japanese city of Hiroshima in 1945.

The considerable longer-term life benefits of this Triassic Period and the following Jurassic period proved advantageous to the survival of terrestrial and amphibious lifeforms. Over millions of years, the settling of soils, increased protection from the UV rays, and the increased mutational capacity provided by the products/contamination of electrical storm products - enabled more complex and specialized vegetative and animal lifeforms to prosper. Increasing food supplies and land mass sizes and stability allowed reptiles and dinosaurs to grow to massive sizes.

172 million B.C.

The Earth makes its regular pass through a Comet Cloud and escapes all impacts. The water volume on the Earth remains constant and climate continues to stabilize. This extra long period of undisturbed development encourages a greater diversity of lifeforms to

appear. Reptiles become more dominant in prevalence as their prey becomes more plentiful and easier to acquire than previously. Bird-forms begin to appear and multiply.

159,842,995 B.C.

This becomes the first occurrence of a Mini-Sun "impact" event which dramatically alters the ecology and climate of the Earth. Consisting of several infrequent and what will become regular cyclical events, the result is a major mass extinction of lifeforms on the Earth - particularly the more complex and specialized forms - unless such have left the Earth prior to this event. Every 31,968,999 years, a similar catastrophe would devastate the Earth.

135 million B.C.

Angiosperms ("enclosed seed") plantforms develop with a protective ovary or seed pod protecting the seed. These represent flowering plants and would lead to the development of grasses, grains, and herbs.

127,873,996 B.C.

The Earth passes through a Comet Cloud and experiences collisions with a sufficient number of the "water bombs" to result in the total water volume present on the Earth being increased by about 17%. Comets are largely hunks of ice which can range in size from diameter of 100 feet (30.5 metres) to the size of the "planet" Venus. This increases the water volume total on the Earth up to 49% of modern day water mass. The somewhat random impact of 3 comets shakes the surface of the Earth back and forth yet does not markedly change the relative position of the crust to the magnetic poles nor markedly change climactic regions for geologically notable periods (over 100,000 years).

The climate of the Earth becomes more humid and the increased water mass tempers temperature variations throughout the solar cycle, and increases crustal cooling. This increases the rate by which the crust is shrinking and by which the raised land masses are tending to split and move away from one another. In this period of geological and climactic stress, unlike anything experienced on the Earth previously for 500 million years, reptilian lifeforms cope best by not changing their home locations or behaviours. More behaviorally dynamic and more "intelligent" lifeforms choose to relocate frequently, often out of fear or insecurity - and, by so doing, they frequently move into tectonically active regions which result in their death and species extinction.

Other factors accompanying the comet cloud create a 'Mini-Sun' impact effect in that a considerable amount of the Earth's crust is dispersed into the atmosphere as dust by vaporizing explosions. The combination of water (splash) and firestorm (heat) result in a rainforest-like climate (steamy, hot, humid) pervading the Earth's surface for more than 10,000 years.

95,904,997 B.C.

A large Comet strikes the Earth quite obliquely in the Indian Ocean region in a direction travelling from west to east. A large amount of water was deposited into the Earth's atmosphere at that time: about 11% the total of the Earth's water present in the mid-1990s.

While the impact is singular, the angular impact of the "water bomb" together with other factors (see 2000 A.D.) and the gravitational forces exerted by an alignment of all of the more distant-from-the-Sun and larger planets, a maximum annual distance from the Sun and a degradation of smaller planet forces due to their relative solar system positions - sum to result in a large crustal shift on the Earth. The resulting shift is parallel to the poles making magnetic pole and climatic changes minor.

75 million B.C.

An Ornithomimid carnivorous dinosaur with a beak provides a link between dinosaurs and birds; a sample of its skeleton would not be found until the summer of 1995. Found in Dinosaur Provincial Park, in the southern part of the Canadian province of Alberta, the skeleton would be reported by Dr. Philip Currie, a paleontologist with the Royal Tyrrell Museum.

69 million B.C.

A Flying Reptile with a wingspan of about 12 metres and a body the size of a small airplane fuselage was active during this time. An Anglo-American team of archeologists would find a representative skeleton in the Middle East in early 1996. Its existence would have required a much "thicker" atmosphere than is present in modern times to enable it to fly-swim above the ground and water. A nurturing higher-than-modern oxygen level of 24% provided more abundant and larger vegetation, and, larger grazing animals - the source of food for the reptile.

63,935,998 B.C.

A Mini-Sun Impact Event occurs in that the Earth is influenced as if it had been struck by a small star. Stars are like huge unshielded nuclear reactors. Unusual amounts of the radioactive element Iridium would be found in Antarctic ice and soils at depths coincident with this era. The firestorm created over the Earth at this time is sufficient to flash burn millions of acres of forest and vegetation - often reducing them to a surface layer of soot. From the heat of the firestorm and other coincident factors, better understood much later, large quantities of surface water are evaporated. This results in the death of many crustacean forms, their erosion and decay into calcified ash, and, the formation of limestones. The extinction of plant and herbivore species extends to 20% of those in existence before the event.

As part of the above, the Yucatan Peninsula, Mexico is impacted by an asteroid which leaves a 120-mile-wide crater. Its size is later estimated as having been 6 to 7 miles in diameter. The release of kinetic energy is so great, equivalent to over 9000 20-megaton nuclear bombs, that the Earth's crust is shifted around its liquid interior resulting in a major magnetic pole relocation. Other factors occurring coincidentally in time also temporarily negate the magnetic field for a number of days.

A Geological Boundary would later be discovered in which a layer of "shocked quartz" would be present, a mineral deformed by a sudden exertion of massive force. This Cretaceous-Tertiary geological boundary would also, and uncommonly, contain a thin layer (like the deposition of nuclear fallout) of rock containing iridium, a radioactive element found in some meteorites. The layer has been found at various regions throughout the world. Many of the plant and animal species found below the layer (older) are not found above it (younger).

From the crustal shift, the location of the equator changes resulting in a realignment of climates. Some previously tropical regions become arctic regions and the reverse. Parts of northern Siberia and northern Canada, before tropical, now become arctic. Larger animals which cannot move easily and quickly enough (dinosaurs) to new regions with the warmer climates they and their food supply require, die out. In some regions, previously dry tropical regions become changed into cold marshlands and bogs.

With Chixculub, Mexico as a centrepoin, the impact threw up dust and debris with such force that rocks were found 1000 miles (1600 km) away in Haiti. The huge amount of dust spewed into the atmosphere by the explosion eventually results in a cooling of the Earth's climate for a period of decades.

43 million B.C.

A large Comet strikes the Earth in the region later known as the Caribbean. A huge amount of water was deposited into the Earth's atmosphere at that time: about 22% of the total of the Earth's water present in the mid-1990s. The amount of flooding is so great that massive amounts of vegetation are covered. Their rotting together with the long-term activity of a vast variety of termites in the forested regions and a period of considerable atmospheric electrical activity encouraged the gradual formation of the Van Allen high altitude ozone belt which increasingly makes more complex lifeforms possible on the Earth.

31,966,999 B.C.

Another Mini-Sun Impact influences the Earth resulting in more species mass extinctions and confirming a cyclical frequency of 31,968,999 years. As previously, any complex, "intelligent" (mobile, self-directed, behaviour-modifiable) lifeform which has not left the surface of the Earth before this event is destroyed together with all traces of its existence. The eroding, dispersing, incinerating, and vaporizing effects of these events effectively destroy any trace of the preceding 1 million years of species development on the Earth.

Consider that much of the modern history of humanity spans a period of less than 10,000 years. Of that, the increasing sophistication of human technology over a period of 200 years has resulted in an increased efficiency in the production of food by 1000%, in the increase in armaments power by 10,000%, and in the ability not only to see the Moon through a telescope but to map it and land recoverable space capsules on it. What could be accomplished in a million years?

15 million B.C.

In a coal seam in the Fisher Canyon, Pershing County, Nevada, the imprint of the sole of a shoe with clear traces of a strong thread was found and dated to this period. A perfect impression of a ribbed sole has been found in the Gobi Desert, on sandstone. No records of human existence appear before 13 million B.C.

The Gobi (which means "The Great Desert") forms a large depression between the Tibetan highlands in the south and the Siberia in the north and west, where the Altai Mountains enclose it. Along the eastern edge is Manchuria. The Gobi is 12,000 miles across, 600 from north to south, and in places, 5000 feet above sea level. The east is now mainly sand and sand dunes, but the central and western sections are covered with grass, throne bush, and scrub. The area supported lush vegetation from about 100 million years ago until about 20 million years ago. It is one of the most prolific sources of dinosaur and reptile remains, including petrified eggs.

In the mountains, along the southern and western borders of the Gobi, are hermits and holy men. By skilled concentration of mind and contemplative powers, these persons have attained seemingly magical powers. Lamas (priests) are said to go from camp to camp, and, gaining control of their breathing, are able to raise themselves in the air off the ground, hear with their diaphragms, and breathe through their ears. Some, by employing their spirit bodies, declare ability to fly through the air with the wind, transport themselves to the top of mountains, and, pass through keyholes. They are said to first gain control of their conscious body. Once this is in control, their advance to other spheres of being, using their spirit bodies.

2,400,000 Asteroid impact

Major disruption of climate during the short term.

1,800,000

Nematodes, parasitic worms, have gained a presence in the ecology of the Earth. There will develop over 500,000 species of nematodes, not all will be parasites. They will include tapeworms, pinworms, heartworms, trichinosis, and many others. In humans, their size, depending upon species, will range from microscopic to over 20 feet in length. Nematodes capable of living in the human large intestine will grow to 7 inches in length and a quarter inch across - and may proliferate into the thousands.

Porcine tapeworms will be paper thin, 3/4ths of an inch wide and up to 60 feet in length. Dog heartworms, wire-thin and about 1-1/2 inches long, and numbering up to the tens of thousands in an organism - will be transferable to humans. Still others may be so small that 600 adults could live on a surface the size of the period at the end of this sentence; their eggs would be smaller still.

They will particularly be a plague to those mammals who chose to live or find themselves in unclean surroundings. Early humanity will sometimes have cultures which are endemic with the "disease" while others will successfully cope with nematode prevention and expulsion.

How nematodes gain entry to the bodies of mammals and humans should be of interest to anyone concerned with maintaining or achieving optimum health. A human will be capable of becoming invaded at any age. Nematodes will not usually directly contribute to the death of their host; they will simply provide chronic symptoms of illness, erratic symptoms of disease, and, potentially permanent alteration of organ functions including

those of the eye and the brain.

Trichinosis will affect the human spine, muscles, and nerves, be extremely painful and will contribute to the formation of arthritis. Heartworms may penetrate organ tissues, interfere with the transmission of nerve impulses (by severing the pathways) and sometimes lead to organ failure. Brain nematodes will be capable of causing brain disfunction, mental confusion, disorientation, blindness, deafness, deformity and rheumatoid arthritis. Others will contribute to symptoms of migratory aches and pains, skin rashes, muscle cramps, constipation, dysentery, lung problems, allergies, liver complaints, impotency, gastritis, ulcerations, body aches, sciatica, crippled and deformed joints, bloating, bulging abdomen, overweight, underweight, lethargy, fatigue, impatience, shortness of temper, chronic indigestion, growths and bumps. Yet all of these ailments can be avoided and most can be recovered from. First, how does one become exposed and how can such be prevented ?

In large part, as long as population numbers are small and density of distribution is light - there is less ecological and social pressure encouraging invasion. As long as humanity, and other mammals, live in lush vegetative surroundings (i.e. jungle or rainforest) and are content with a fruit, nuts, vegetable and simple starch diet, there could be light exposure. Nematodes are frequently present in raw meats and transfer is highly likely whether the meat is simply handled or eaten.

Cleansing of the skin touched by the meat and its juices soon after contact is one manner of prevention. Otherwise, invasion may proceed through abrasions, scratches, cuts, cracks, touching of the mouth or the eyes, or, directly through the unbroken skin over time. The herding and husbandry of animals also provides considerable possibilities for such animals are never as well groomed as their wild counterparts nor are their restricted and structured surroundings found to be as clean as in free-roaming.

More congested and restricted surroundings, both for domesticated animals and for humans, tend to have a higher presence of surface nematodes. Walking barefoot, breathing disturbed dust, not washing directly after handling pets and livestock - all increase one's affinity for invasion. In this sense, agriculture will become the forced, structured, congested production of vegetation. Particularly when fertilized with dung, the soil will be infested with nematodes and the plants harvested will likely be contaminated. In such circumstances, washing and cooking of the items will lessen contact with nematodes.

Since nematodes can be transferred by contact, intimate and even simple social handshaking contact will provide the potential for a transfer and invasion of nematodes. In high social contact situations, cleanliness will prove to be the best prevention. The dust of deserts, savannas and farmlands will be more contaminated environments than those of the rainforest and jungle. As water supplies become exposed to agricultural runoff, mass population sewage dumping, and, decaying corpses - it will become more heavily contaminated with nematodes.

In effect, a degree of ecological balance and health is possible for all life on the Earth IF climate degradation does not occur, population densities do neither dwindle nor enlarge substantially, and, larger earthforms maintain a respect for each other and themselves by avoiding waste of food and life and considerable pleasurable grooming.

Yet if infestation with nematodes still occurs, what can be done.

Nematodes are lifeforms even as their hosts are. If you kill the nematode within the host, you may kill the host also. The major constructive curative measure is therefore to make the internal environment in which the nematode thrives, dislikable, or, temporarily toxic. Changing the acidity level of the digestive tract is one option. By substantially increasing ones intake of citrus fruits or by taking large doses of timed release vitamin C, and uncomfortable environment will develop and the nematodes may then unattach themselves from within you and leave what appears to them to be a dying body: an association on their level of cellular intelligence of higher acidity with decay.

For the integrity of one's own health, the level of vitamin C intake should be maximized in accord with those levels indicated safe by the use of muscle-testing or meditation. The use of herbs which increases the concentration of ammonia within the body, such as garlic, molasses, etc. also provide the same perception to the nematodes. It should be noted that total eradication of an infestation in one assault is impossible. Only the mature adults will be "intelligent" enough to leave. Prolonged usage of the high levels of vitamin C or of the herbs may prove unhealthy to the host for the expulsion process may be expected to tire the biological system of the host. To regain adequate strength to continue and to survive, the deworming human will need to acknowledge and constructively use the growth cycle of the nematodes.

Nematode growth from egg to larvae to adult may take as long as 31 days. While the vitamin C therapy can often be used for a considerable length of time, it will often also require the supplementation use of anthelmintic herbs: the former retard nematode growth and proliferation and encourage expulsion; the latter only kill the adults - which are then usually flushed from the organism. There is a synchronicity within the nematode populations. Adults exude a chemical which when strong enough relative to adult population, halts egg development. Killing off and expelling the adults signals the eggs to develop. Only by killing the successive generations of adults before eggs are produced can one's system be cleansed.

A successful procedure is to use the garlic-molasses combination or an anthelmintic herb (these include wormseed, wormwood, pomegranate, pumpkin seed, walnut hulls, kamala, quassia chips, betel nut, white oak bark, butternut, hops, garlic, sage, peach leaves and lemon leaves) in active-inactive cycles. That is, take the medication for 10 days, then stop for 5 days. Repeat the cycle at least 6 times. Continuous use of the herbs will do nothing against the eggs or larvae.

It is the larvae which are the most dangerous to the health of the host: it is they which burrow through tissue and move through the body; the eggs and adults tend to stay in one

location. It should be expected that while taking large doses of vitamin C, the human sex drive may be temporarily eliminated. It's your choice, sexuality with chronic and life-shortening diseases, or, possible temporary abstinence, symptom-free health and happiness.

1,565,000

The first Anthropoidal Lifeforms begin to appear on the Earth.

Mutations of sea mammals, they increasingly become appreciative of the huge amounts of vegetative growth packed onto the emerging land surfaces relative to the disbursed organic food in the sea. Population numbers are quite small, rising very slowly to a level of about 1 million by 1 million B.C.. Parasitic disease is endemic: an active, contented life lasts an average of 40 years. Sexual activity is mediated by seasonal ruttings: sexual interest is aroused only on an annual basis. These lifeforms tend to socialize into small bands of largely independent individuals which gather together for companionship.

906,000 B.C.

A Meteor impact results in a short-term major disruption of the climate.

905,000 B.C.

A Rejected Sub-culture, the "UP" arrive on the Earth from the Pleiades star cluster. The Pleiades star cluster, is a group often called the "Seven Sisters". It is undoubtedly the most famous galactic star cluster known to humans. It has been regarded with reverence from remote antiquity. The name is said to come from the Greek, "to sail", from the tradition that the helical rising of the Pleiades was the sign of the opening of the navigational season in the Mediterranean world. In various Greek and Roman writings, they are referred to as The Starry Seven, the Net of Stars, The Seven Virgins, the Seven Atlantic Sisters, the Daughters of Pleione, or the Children of Atlas.

Hesiod wrote that their appearance and departure marked the agricultural seasons in his time. The connection of the Pleiades with agricultural activities is immortalized also in such titles as Virgins of Spring, the Stars of Abundance, the Stars of the Season of Blossoms, and others. All these names refer to the fact that the Sun reaches conjunction with the Pleiades in mid-May, the time of the blossoming flowers. In Hebrew scriptures, the Pleiades are mentioned in Amos, chapter 5; the Book of Job, chapter 38. A Chinese observation was recorded as early as 2357 B.C. In the ancient Hindu Lunar Zodiac the group was apparently the central feature of the first nakshatra called the General of the

Celestial Armies. The cluster appears on some Hindu charts as the Flame of Agni.

Many human cultures attach great significance to this star cluster.

Their concern with human destinies was believed to be intimate and direct. Out of the dim reveries about them by untutored races, issued their association with the seven beneficent sky-spirits of the Vedas and the Zendavesta (Hindu scriptures), and the location among them of the centre of the universe and the abode of the Deity, of which the tradition is still preserved by the Berbers and the Dyaks. With November, the "Pleiad-month", many primitive peoples began their year; on the day of the mid-night culmination of the Pleiades, 17th November, no petition was presented in vain to the ancient kings of Persia; and the same event gave the signal at Busiris for the commencement of the feast of Isis, and regulated less immediately the 52-year cycle of the Mexicans. Savage Australian tribes continue to dance in honour of the "Seven Stars", because "they are very good to the black-fellows".

The Abipones of Paraguay regard them with pride as their ancestors, or Grandfather. Elsewhere, the origin of fire and the knowledge of rice-culture are traced to them. The ancient Druid's rites were conducted on November 1, close to the culmination of the Pleiades. The cultures of Greece, Japan, the Australian aborigines, the Gold Coast of Africa, and the head-hunters of Borneo all acknowledge a lost Pleiad, or star from the group. The star Pleione is suggested, for it has a peculiar shell spectrum, and is known to be variable by at least half a magnitude, becoming invisible to the naked eye by times.

The Pleiades star cluster is older than the Solar system.

It is one of the nearest of the open or "galactic" star clusters, at 423.83 light years. Eta Tauri or Alcyone, the central star and brightest of the Pleiades, is nearly 1000 times more luminous than the Sun, and probably 10 times greater in size. An age of about 20 million years is suggested. The bright Pleiades stars all show rapid rotation with Pleione rotating about 100 times faster than the Earth's Sun. Double and multiple stars are common in the Pleiades. A remarkable fact about the cluster is that the entire star-swarm is enveloped in a faint diffuse nebulosity which appears to shine by reflected light. This cosmic cloud suggests a profusion of dust and larger particles present in the cluster area.

God's promises to the Jews (Israelites: "he that strives with God"; Christians, ...) are timed according to 430-year prophecies based on the Jewish 360-day annual calendar. Conversion to modern Gregorian calendar equivalent requires the multiplication of 430 years by 360 days, and the division of the product of 154,800 days by 365.2425. The result is 423.83 years. Travel between the Pleiades and the Earth near the speed of light would require a period of 423.83 years. If a spaceculture, considerably advanced to that of humanity, and beginning their cycle of visits with technology enabling them to travel near the speed of light, sought to "monitor" human "development", then such periods of "independent choice" would be a consideration.

Humanity would be given simple instructions by which to guide themselves such that they live happily and peaceably. Failure to live according to these guidelines could "naturally"

result (in a predictive sense) in destructive and negative results. Further choice and opportunity, by the grace of "God" would occur every 430 (or 423) years. Of course, over a period of centuries, it would be reasonable that such a technologically and spiritually advanced culture would develop faster methods of travel. If the original "promises" or covenants were made on a basis of 423 years, they would still be completed as such.

The arrival of the "Up" coincides with the first Great Climacteric, periods which human historians attribute to great technological change for humans. Some original form of bioengineering took place which resulted in pre-human pre-Neanderthal-like hominoids. Even at this primitive age in their own technological development, the visitors were 105 Earth years advanced, in relative modern human technological advancement terms, beyond the human development of bioengineering research, 1995.

Even at this level of cultural and technological development, the "angels" were ignorant in regards to the consideration of the responsibility for the changes which they were making to the universe. Like humans would rationalize almost a million years later, these "angels" from the heavens considered themselves to be simply experimenting with the intent of better understanding the universe and the nature of God.

Bioengineering takes place when the genetic structure of a species is intentionally altered. It is different from an ecological mutation occurring or natural selection or cross-breeding. Mutations occur in all species and are usually a result of biochemical (drugs or pollution) or emotional (trauma-induced energy blocks) changes which influence development in the fetal environment during gestation. Natural selection will occur when an environment changes drastically and those forms of life which cannot adapt to the changes, or, are not advantaged by the changes, die out. Cross-breeding involves opposite genders of two different yet similar species mating and producing a healthy offspring which has characteristics of both species, yet is not identical to either.

In bioengineering, a laboratory (synthetic environment) re-arrangement of cell-based characteristics results in the formation of a lifeform which has characteristics from two or more forms of beings which are too unlike to interbreed successfully. In the 20th century, human genomes would be bioengineered by humans together with genomes from other lifeforms: the result would be called a chimera. The bioengineering results of the "UP" will be beyond the imagination of humanity until 1996.

Insertion of a gene into a mature cell can be accomplished in a number of ways. One, is by the use of a retrovirus. Retroviruses are viruses which naturally insert their genes into the host cell DNA after they infect the cell. Viruses themselves can be genetically engineered in such a way that they maintain their ability to integrate into the host DNA, but that their damaging genes are replaced by useful genes.

For example, the viral genes in the disease Thalassemia, a human genetic recessive condition in which the gene for the production of hemoglobin is non-functional, could be replaced with a hemoglobin gene, and the genetically engineered virus could be used to

infect hematopoietic stem cells (HSC's) collected from a patient with Thalassemia. HSC's which have taken up the virus could then be transplanted back into the patient, resulting in normal red blood cell production. The ideal constructive intent may be to provide the cell with diminished systemic survival factors with the ability to produce a protein that may improve the condition targeted by replacing or supplementing the product of a missing or ineffective gene.

Until the actual experiment has been carried out, there is no way known (to humans in 1996) for the outcome to be predicted accurately. That is, just as the use of Retroviruses may inhibit viral replication (in an HIV infection) or block the influence of health diminishing genes that induce mutations or translocations in the host genome (as in the replication of cancer cells) - the opposite is also true. That is, the insertion of a gene into a "healthy" cell may result in the introduction of a mutation influence - a "permanent" change in the capabilities of the individual and its offspring.

Often, when a strengthened ability is introduced into a biologically balanced organism, another or other abilities are weakened. With bioengineering, the experiment once begun cannot be reversed. If the insertion is successful, the targeted being either lives a new life with the addition of a presumed benefit, or dies.

When spacebeings and Earthly hominids are bioengineered together, the result may be a either a form or race of humans, or, pre-humans. In the Christian text, The first Letter to the Corinthians, Chapter 15, verses 45 to 49:

"The first man Adam was made a living soul; the last Adam was made a quickening spirit. Howbeit that was not first which is spiritual, but that which is natural; and afterward that which is spiritual. The first man is of the Earth, earthy; the second man is the Lord from heaven. As is the earthy, such are they also that are earthy: and as is the heavenly, such are they also that are heavenly. And as we have borne the image of the earthy, we shall also bear the image of the heavenly."

If this is an ancient description of the origin of humanity as given to or provided by the Walk-In "Paul", it expresses the fundamentals of the creation of humanity as the work of the "angels" of God who have fallen "out of the heavens" to arrive on the Earth. Such later "messengers" melded the natural physical form(s) of anthropoids and hominids (human-like lifeforms) and modified their developmental periods such that a form of conscious - reflective will could evolve. The active presence of the latter would have to wait for a later "experiment".

At this point, only the basic hominid bipedal form was devised. It possessed a character, that is, a "soul" - an individual physical and emotional identity.

This stage of physical, animal, "earthy" development is congruent with the hundreds of thousands of years in which pre-humans are believed to have lived peacefully in band (small groupings) organizations in a luxuriant ecology of plenty (forests and jungles).

Tool making enabled these pre-humans to become more efficient hunters and "human" population increased beyond the 1 million mark. Most of their remnants of existence have long disappeared from the influence of massive Earth changes, climatic erosion and geological sedimentation, or, the destructiveness of succeeding similar lifeforms.

800,000 B.C.

Elementary Human Primates lived in bands, primarily in jungle ecologies. All of these groups and cultures have been destroyed today (1996) although remnants existed as short a time as 50 years ago. These humans are important to us because they survived for a period of time which is more than 133 times as long as human recorded history (800,000 / 6,000) and more than 5,714 times as long as the development of modern science (800,000 / 140). That is, they managed to survive climate changes and ecological disasters and never threatened their own survival through wars or environmental mismanagement or waste. Perhaps we can learn something from them.

Band cultures are those in which humans organize into neighbourhood units ranging in size from several families to as many as 30 people. These numbers are always fluctuating as new members are born, some leave, others join, and some die by accident, disease, natural aging, or, very rarely, as a result of assault or murder. What will be referred to here as bands are not social structures in the manner which modern humans perceive societies. There are no extensive social norms which are paralleled between bands.

Each band has its own simplistic status quo which can be idealized as freedom AND equality. These bands, we know from recent past examples, live in ecologies in which there is no population pressure for the sharing of resources: there is abundance. The lifestyle is one of daily gathering and eating of fresh foods, and, occasionally, the eating of meat. In the time frame considered, meat-eating came late and proved advantageous after humans could no longer produce vitamin C within their bodies - as most other animals can - and food became scarce periodically due to increasing seasonal variations and possible wanderings beyond the jungle into grassland savannas. Bands are self-sufficient, intimate in communication, sharing, self-assertive, and emotive.

The point-of-view, reference point, or Weltanschauung by which people orient their thinking, reactions, emotions, decision making, values, philosophies, and morals - is strikingly different between ancient bands and modern societies. Bands could never have, and would not have wanted to - develop science and technology as learning resources and tools. They would never have collected the excess of produce to trade with other people to

produce a capital profit which would have enabled the time for reflection and experimentation and the investment required to develop a science and its technology.

They never had the population density to crowd other bands and never considered such social structuring possibilities as the ownership of territory. Freedom was oppressive in that the wide world was at ones door, yet to call a place home one had to familiarize and enjoy a small part of that at any time. One cannot appreciate the whole world at once; one cannot be everywhere at once. Most lifeforms need a reference point for the safety and security of not being lost. Life within the band was one of concern for the present. The past was gone; only God knew the future.

One enjoyed life on a day-by-day basis so why should one reflect on the past or project into the future. There was no need for hope and motivation for one had little occasion for depression, loss, or need. Certainly, there was no requirement for vengeance, hatred, or, possessive intense love for all disagreements were coped with on an hourly basis and one had a sensual lifestyle.

Tactile stimulation was thorough each day.

One massaged oneself and others, groomed oneself and others, washed oneself and others, mended one's hut or shelter, supervised the children, dug up roots and nuts and edible insects, collected berries and fruits, caught fish, and, repeated many of these activities 3 or 4 times each day. Rests were taken and nearby territory was travelled over while searching for food or obtaining water or looking for a new location. The campsite would be changed every 2 to 4 weeks to a new location of plentiful supply. The thought of staying for any long period in one place would have been considered absurd: a sure means to starvation and need by the overuse of one area.

In modern times (1900s), a misunderstanding of band morals and practices would be proudly presented by state indoctrinated anthropologists and sociologists who appeared to be more correctly termed "apologists." Service (1966) attributed "mercy killings" and the belief that supernatural forces resided in inanimate objects to the Inuit. The mercy killings which he notes were the voluntary actions by older and/or infirm individuals who for the benefit of the band, particularly during seasons of hardship, might choose to leave the band and walk into a blizzard or a forest to complete their journey to death through starvation or freezing. There was no social shame or coercion for any individual to do such; nor was there any wish by band members in most cases for the infirm and dying person to do so. The band member who is reverent of nature and the universe, for whose benefits he or she is thankful for life itself - can get no closer to God than in the forest or storm itself. Death is not feared as the end of life but rather is assumed to be a rejoining with the Creator, or a new stage in life. Of course, those bands whose beliefs and lifestyle have been "corrupted" by the influence of more human-centred societies, cannot be expected to maintain these beliefs and attitudes.

Farb (1978) would equally misinterpret the Inuit practice of "wife-exchange" by attempting to incorporate it into North American European descendent morality. Living in

an arctic region in which winters are long, dark, cold, and barren - less modern band members might find it necessary to stop at another band location while returning from a hunt to his own camp. In such infrequent circumstances, the family receiving the visitor, like the visitor, would have an ethic of sharing and compassion for one another. It would be realistically recognized that human males have oppressive sexual needs and that the visiting male had been without his mate for a period of time. In an Inuit band, there is little which other cultures would refer to as surplus or luxury. Clothing, food, housing, - everything, is fashioned on a personal need basis from the ecology: self-sufficiency.

Intimacy in any band is not possessive, as it tends to become in more structured human societies. Women and men become sexually intimate only when both parties are in agreement. That agreement often only evolves when the couple have formed an emotional bond and a friendship for one another. It is automatic of a band member, in a positive environment, that consideration, respect, and empathy be shown to other members - whether those members are male or female. Thus, whether in the arctic of today or the jungle of yesterday, a true band member will have a love (respect, intimacy, concern) for all that surrounds (forest, plains, mountains, streams, ocean, animals, self, friends, significant friend, visitor, stranger) and of which they have experience, UNLESS, that entity becomes threatening.

Such a destructive situation seldom arises in a positive band ecology. Thus, the practice mentioned is neither an "exchange" nor a "sharing". Rather, the independent female has the option, and if so inclined, the freedom, to share enjoyment with a lonely traveller, who, because of their shared beliefs and lifestyle, she knows will treat her with respect and kindness. This concept is impossible understand for humans who have been indoctrinated with the perspective that "married" persons own one another and that the choice of a married partner is predicated upon the gifting, sale, or authority of their partner.

The cultural set, that is, the perception of reality experienced by and used by a band is extremely different from that assumed by most structured societies. Later societies would only be able to develop language, writing, authority structures and idols because they could substitute symbols for experiences which were believed to be stable. In jungle, desert, mountain, and arctic regions, these perceptions of stability are often fantasy.

At this point in history there was very little "temperate" climate - which would prove to be the most perceptually stable, and, given the choice, no band would choose a temperate temporary residence over the benefits of a tropical one. All human perceptions, intentions, and actions are structured according to the reality in which the individual believes is present. Humans usually see first what they expect to see; then, if startled, shocked, manipulated, deceived, coerced, impressed, or threatened - they may see a different or altered reality. Once a human has become committed to an emotive (band) perspective or to a rational (structured society) perspective - the alternative is often described as immoral, incorrect, or, irrational. Yet each, separately, affirm with equal confidence that their reality is truth.

Van Dyke (1901) provides one of the last glimpses of a desert band reality.

The Great Basin Shoshone were to be found in the sand desert of Idaho, Nevada, Utah, Arizona, and, Colorado in the late 1800s. Forced out of more advantageous environments by tribes and states, they extended their lifestyle of self-sufficiency to the desert. This region is a land of dry soil, high evaporation, low rainfall, and extreme temperatures. Still, these Shoshone live a nomadic lifestyle in units of several families. Together, they pick pine tree nuts, mesquite beans and grass seeds. They hunt gophers, rabbits and antelope. Snakes are trapped. Crickets and grasshoppers are caught. All food is shared. Everyone takes pleasure in their bounty in this land of hardship and scarcity. The happiness of another brings happiness to the giver.

When morning arrives, the air is cool and sharp.

It is so clear that one can see for 20 miles. The distant mountains loom huge. Their dark outlines seem razor sharp. The atmosphere is dry, light - so light that one feels airy in movement. The sands are grey for the sky has only begun to lighten. Its greyness flows into a dark blue which warms with the flushed colours of yellow, rose, and pink - as the Sun rises higher. Some hills to the right are coloured bright lilac, others in fire red. We set off in their direction.

As the day continues, dust and sand is swept upwards in occasional whirlwinds. The intensity of the light decreases as the sand catches the rays and deflects the blue back upwards before reaching the ground. Mirages suggestive of lakes or streams sometimes shimmer over distant ground. The remaining sunlight breaks through in a blue, or yellow, or pink haze which surrounds us. Our footsteps are quiet as they fall on the soft sand. Its cushioning adds spring to our steps. Ahead, a butte appears to rise out of the plain. Another appears to the left and a third fades into view. A whole range of buttes grows into view as we travel onwards. We pass a thinly scattered range of wildflowers - patches of evening primrose. No water can be seen anywhere. It is as though the animals live without it.

The sands continue to change colour.

Nothing remains constant, visually. Light and heat and dust interact all day to provide a kaleidoscope of faint colours. The bleached yellow sand shimmers as the fiery air wafts over it. The buttes fade away in the mist. The hills appear to lose their size and become cloaked grayed shadowed masses. They appear like a row of smooth sand-dunes. The bushes never seems to lose its leaves. New leaves appear before the old are shed.

The day wears on.

The reflection of the sky forms a water mirage on the right. Heat waves ripple through it suggesting moving water. Small islands appear to dot the surface. A butte sits upside down in the mirage while upright wildfowl and bushes fly past and grow up through inverted tufts of grass. A startled coyote runs through the mirage nearby.

"I could only see his head and part of his shoulders, for the rest of him was cut off by the air layer; but the appearance was that of a wolf swimming rapidly across a lake of water."

We continue.

The hills begin to grow in size and clarity again. We are not far off now. Distance is such an unknown quantity here. It seems forever to stretch. A horse looms out of the sky on the left - floating in the air. Its legs appear distorted and elongated. They seem to stretch for 30 feet. As we approach the hills through the haze, their colour changes - like all the colours of the desert - always changing. Now they look dark red, a shadow running down the right side. The light is dimming, the Sun is going down. The air is cooler now and a spectrum bleeds across the sky - red at the bottom through yellow, greens and blues to purple overhead. We reach the hills. The shadows are not. Rather, they are really grey lava beds hedged with sun coloured sand.

Such a journey might happen any day to a Kalahari Bushman (Kung!) or a Great Basin Shoshone. Appearances are always true - others will verify them; however, appearances are not always real. Forms and colours may come and go without regularity. Everything moves and changes. No distance is certain, visually. Food is everywhere, for those who hunt. Its supply is meagre but adequate. Such marvels satisfy the imagination and demonstrate the futility and apparent meaninglessness of measurement and projective rational reasoning. Here the truth is felt. To be real, you must be able to touch it. The reality of appearance is only for fools.

For the Canadian Inuit, forms must also be felt for the arctic desert can play tricks on human vision. In the winter, whiteouts can occur when the Sun is low to the horizon. At such times, buildings, people and dark-coloured objects may appear to float in the air. Depth perception fades away and the horizon may disappear. Objects which normally would be beyond the horizon may now loom above it. Mirages which distort the apparent shape of the Sun, moon and other objects become common. Reflection from the snow may nearly eliminate shadows and decrease the contrast between objects. A cravasse in the foreground may go undetected while dark mountains in the distance continue to appear normal.

A relatively bright, usually yellowish-white glare on the underside of a cloud layer may form a "sky map" of varying patterns of brightness. In the blowing snow the Inuit feels the snow slipping over and around their parkas like a score of hands smoothing and caressing. Boundaries fade as vision varies from inches to miles and back again. The degree of darkness found at lower latitudes seldom appears here. Half-moons illumine the plain almost like midday. Days may stretch on with little perceptible change in light intensity. Only the feel of experience can give meaning to the truths which vision may hide. Experience reduces fear and strengthens the confidence of knowing. In the snowy landscape, with an absence of visual cues, people tend to veer in a circle. Without

experienced "feel" such error can result in death.

With summer comes fog.

More than one of every two days is blessed with this veil. Visibility varies and when objects are sighted in the distance they often appear enlarged in size and twice as far away as they are in reality. Passage is often over spongy muskeg and small plants begin to grow everywhere. Fishing from a kayak brings new experiences - requires new feel, for spearing a fish which is underwater presents difficulty. The image seen by humans is displaced by diffraction and if aim is taken directly at the image seen, the fish will be missed.

Seeing is not believing here.

Nothing is constant. Predictiveness is absurd and to concentrate on thoughts of the past or the future is irrelevant. God is everywhere and life and death are both part of living. Everyone makes their own way through life and at the end there should be no fear of death.

Winter is the more difficult season.

It is then that an old person who feels that their time has come, may walk out into the night, or the blizzard, to meet their God. Here everyone is equal and each accepts responsibility for their own existence. Each person decides when their time approaches. No friend or relative would be so inconsiderate as to rob this last dignity from a weakening elder. Responsibility is the defining ethic that so differentiates the band member from the citizen of the industrial society.

Self-responsibility here means that if you want something done, you do it. There is no delegation, no authoritarian abuse of rights, no whinnying, no manipulation, no expectation, no duty. The child learns self-responsibility by respect, experience and the modeling of elders: there is no coercion, no chastising, no blaming, no shaming. In an environment filled with many small challenges and some larger hazards, the child quickly learns respect for the wisdom of the elder. The child ventures forth, looking back at each step or two for the nod of assurance from the elder or the glance of caution. No words need be spoken, the eyes communicate.

When you are more experienced, you risk the freedom of self-direction: you take risks a little at a time to extend the knowledge and skills you have learned. If you make a mistake, you learn from it; you don't shift the responsibility to others, or things, or a god. You don't expect rights which you have not earned through a demonstration of respect, knowledge and skill. Life is as harsh as the rights and responsibilities which you take for which you are unprepared.

A band child earns the right to independently go and fetch water for the camp by first learning the cautions which prevent endangerment to his health and life. Next, the knowledge must be learned as to where the water is, how to find new sources of water, how to effectively and efficiently carry the water, how to preserve the cleanliness of the water. By accompanying and observing others, the child learns to duplicate the skills involved

with the activity - and then to make supervised attempts.

When the art of the task is mastered, the child has **EARNED** the **RIGHT** to go independently and bring back water for the camp. So unlike the child or teenager in an industrial society where rights are given without the awareness of their value or the skill to perform them without reliance on technology. In the band society, **TIME** is taken to become aware, to communicate, to learn, to improve, to do. After all, to the band member you have all day - reality is now, there is no tomorrow without a now and tomorrow will only be as positive as you have made today. Fix it now, or face a bigger complication and difficulty tomorrow. Responsibility is a question of where you are now.

In earlier times, before the climate changed to become drier, there were lakes and forests and plentiful game in the Great Basin. God was felt to be everywhere; God was benevolent. Each person was self-responsible and providing aide to others was a pleasure, not a duty. Low population density, nomadic settlement, and the simplicity of few possessions, together with an egalitarian lack of prestige - limited all forms of aggressiveness.

Later, with the introduction of a harsher climate, the rational thinking of humanity led to the fantasy of witches and evil spirits to justify and confirm doubt in the goodness of the supernatural. Elementary rational association promoted the personification of deities and the designation of holy places. Tribalism was on the way.

An egalitarian social order encourages a cooperative livelihood.

Body contact between mother and child remains high although there is minimal supervision. Children respect their parents and look to them for permission during their exploratory play. Rather than a parent having to repeatedly say "No" to the child or restrain the child, the child looks to and receives an approving or disproving glance from the parent. In a world filled with wonders, there is no shortage of things to explore and learn about; no need to "get into mischief" in order to raise the stimulation quotient of ones environment. Women become symbols of security who discourage aggressiveness by diversionary activity.

There is no need for technology for everything which needs to be done can be completed with one's own hands. Those sticks and staves which are used are of an impermanent nature. Any time one requires a straw of stick to retrieve or dig insects or roots from the ground, the surrounding has an amply supply. If a stave is required to assist one in traversing steep slopes or in assisting one who has been injured, the surroundings offer many alternatives. The concept of keeping and dragging such implements around as possessions would be like weighing oneself down in the midst of plenty.

Like the BaMbuti (Pygmies) of the Congo (1950), most bands would live in rainforests which covered 80% of the land at this time. For the BaMbuti, the forest functioned as a parent (provider) and as a protector (against rain and heat and cold). There was an abundance of food including edible roots, fruits, beans, plantain, nuts, fish, insects (high in protein), antelope, leopard, buffalo, elephant. Of course in earlier eras, there were earlier

species of similar food sources.

This ecology and climate afforded a continual tactile continuity.

The cool/warm temperature and the close damp air afforded a womb-like sense enhanced by the closeness of brush, trees, vines, ferns, and, a muted sunlight through the rainforest canopy. Underfoot, a soft forest bed of leaves and decaying wood together with a bed of undergrowth added a further sensual feel to one's surroundings. Individual free-ranging exploration enhanced the egalitarian relationships which humans participated in.

Self-sufficiency was as easy as following the example set by one's parents and picking and eating food whenever one was hungry. As "children of the forest" the BaMbuti accept self-responsibility, harbour few fears, and, believe the world to be good.

In the rituals employed, it is not the act which everyone sees which is held to be important. Rather, it is the feeling which is expressed through the actions and the manner, care, and reverence with which it is performed which is significant. Symbols hold no meaning here.

For the Shoshone, the colour of the land and the sky continually changed - nothing was static - how could one assign colours a fixed name. The Shoshone were thought to be ignorant by the first Europeans who encountered them because they had few words for colours. Yet, in their environment, the static terms which the Europeans used for specific colours were meaningless in the ever present context of the Shoshone reality. Why would one call the colour of a butte "orange" if they were wise enough to know that whenever another person came to the location to look for the butte, it would likely be another colour?

In the rainforest, a definition of distance seems absurd to a member of a band. One can seldom see further than 10 or 20 feet. One never develops a perception of "distance." Taking a rainforest person into an open plain is very confusing for that person. The image they see of the animal in the distance is small; the animal must be a small animal. The suggestion that as one approaches closer, the animal will become bigger is frightening. In the closeness of the rainforest, what one sees is what there is - no bigger or small, no distance. Touch and closeness are paramount in this reality.

Expressed aggression in band societies is highly individualized and usually of a short-term passionate nature. Husbands and wives disagree occasionally and express themselves assertively and through physical confrontation. Friends or spouses are non dependent, either economically or emotionally. If you are become too much of a negative influence, you are simply left to yourself - abandoned or excluded. No one has either the patience or the sense of possessiveness required to continually forgive an abusive person. You treat others with respect and you receive it in return. Nothing less constructive is mentored to the young.

Still, the band does not mandate who you can or cannot reside with. If you and your committed partner choose to be together, it is accepted. Only if you and your partner continually disrupt the camp will it be indicated to you that you are no longer welcome. Actions involving feuds, revenge, murder - would be unknown to most band participants.

Social control is most often achieved through displays of ostracism, contempt, shouting down, ridicule, sympathy and argumentation. More formal procedures may take the form of cooperative thrashing and reference to supernatural retribution.

At the other extreme of social expression, high praise for individual achievement is given. Usually, the meaning of such acts is that the individual has either learned or benefited from a skill which enables them to be more self-sufficient. The concept of spousal commitment is one of ongoing expression of choice to share intimately with another person. No extensive or involved ceremonies "fix" the relationship for this would remove the day-to-day sense of choice and self-responsibility.

Those individuals who decide to form a family structure do so with ample examples of the benefit of such longer-term sharing, awareness of one another, appreciation for one another, and concern for one another. The multi-family band encourage those relationships which are obviously constructive. Self assertion, forgiveness, and respect for one another is central to this relationship.

If a woman chooses to be intimate with a man other than her partner, a violent conflict may result between the two males, if they know each other (which they will in a band), and/or between the committed male-female parties. Such expression of anger and frustration has no connection to a sense of ownership or of finite permanent exclusivity. Rather, the woman's "husband" feels that the male friend has committed treachery against him - has acted in deception. Likewise, the "husband" is distressed by the apparent blatant rejection expressed by his "wife" and feels that his identity has been abused. Acceptance of such an act might have occurred if the wife and friend had shown the respect to approach the husband and acquaint him with their desires beforehand. He would then have had the opportunity to reject or accept the suggested desire of his wife and friend, or, he would have had the opportunity to withdraw himself from the relationship with his wife, or, to resolve anything which could again bring he and his wife into a sexually exclusive relationship. Numerous options are possible in such a circumstance. Personal choice and self-esteem, if respected, can lead to some form of negotiated constructive solution or compromise. Without such respect, murder may result.

Few traditions abound in prehistoric bands.

There is little fear and anxiety and there is an acceptance that the environment is abundant, dependable, and, always surprising and interesting. Self-assertiveness maintains a sense of dignity and tolerance for one another while guilt is responded to with forgiveness, short-term anger, immediate penalty, or constructive criticism. Constructive shame is often present in bands and continues here as constructive criticism which can promote a stronger self-expectancy, self-motivation, self-direction, self-discipline, self-dimension.

Healthy shame encourages the development of self-responsibility, acknowledgement of wrong, a desire to improve and to compensate, a recognition of identity boundaries and the rights of others, a recognition of one's limits and limitations, and, a willingness to make

efforts with the knowledge that mistakes will be made and that learning can result from those mistakes. Behaviour for band members is mainly in the present. It is a question of how to respond to now. There is little comfort in the knowledge that someone else may have been successful with one procedure in one instance while another member was successful with a very separate approach in another time. Basic skills are learned from experience and from each other; their relevance is tested on a daily basis.

698,000 B.C.

Geologists and meteorologists suggest that there have been 8 ice ages in the 700,000 years to 2000 A.D. Four major "coolings" occurred at approximately these times:

1. 698,000 B.C. 13 asteroid storm
2. 395,000 B.C. 5 meteor impact
3. 144,000 B.C. super-nuclear destruction: India - Mongolia
- 80,000 B.C. meteor: major geological and short climate changes
4. 3,900 B.C. comet: freeze, Earth twist, new climate globally

698,000 B.C.

At this point 13 major asteroids impact the Earth in close proximity in locations within and bordering what is now referred to as the Baltic Sea. At least 10 of the impacts result in craters which are visible today along the Baltic coasts of Sweden, Finland, and the former Baltic Soviets.

670,000 B.C.

Evidence suggests that giant beings once inhabited the Earth.

Statues and tool finds indicate that beings of a height of 13 to 30 feet. Statues more than 20 feet high are found in Peru, Easter Island, the Marquesas Islands, Bamian, and other locations. In the region of Agadir, Morocco, Captain Lafenechere discovered a tool making centre, some of which were bifacial tools designed to be held in a hand or appendage. Some weigh 17 pounds and would require a finger spread that would respond to a being at least 13 feet tall. Ordinary flint tools of similar description weigh 14 ounces! Nearly 500 tools

were found that weighed 20 times more than their comparable flint counterparts.

The Moon of the Earth is at a distance of 170 times the radius of the Earth providing the Earth with a good degree of safety from impact from its moon. Many other planets in our solar system have multiple moons so it is not improbable that in the distant past one of our own moons was close enough to exert an antigravity force on the living forms on the earth making larger sizes of life sustainable under the resultant net reduced gravity, until that moon someday impacted the Earth resulting in a re-stabilization to a higher gravity force at the Earth's surface plus a thermonuclear like dissipation of energy from the impact leading to mass destruction and temporary climatic irregularity.

References to Giants are made in the Church of Latter Day Saints' Pearl of Great Price, Book of Moses: Chapter 8

"And Noah and his sons harkened unto the Lord, and gave heed, and they were called the sons of God. And when these men began to multiply on the face of the earth, and daughters were born unto them, the sons of men saw that those daughters were fair, and they took them wives, even as they chose (with lust, envy and greed - rather than with reverence and the counsel of the Holy Spirit) And the Lord said unto Noah: The daughters of thy sons have sold themselves; for behold mine anger is kindled against the sons of men, for they will not harken to my voice. ... And the Lord said to Noah: My Spirit shall not always strive with man, for he shall know that all flesh shall die; ... And in those days there were giants on the earth, and they sought Noah to take away his life; but the Lord, and the power of the Lord was upon him. And the Lord ordained Noah ... and commanded him that he should go forth and declare his Gospel

And God saw that the wickedness of men had become great in the earth; and every man was lifted up in the imagination of the thoughts of his heart, ... Believe and repent of your sins and be baptized in the name of Jesus Christ, the Son of God, even as our fathers, and ye shall receive the Holy Ghost, that ye may have all things made manifest; and if ye do not this, the floods will come in upon you; nevertheless they harkened not. And it repented Noah, and his heart was pained that the Lord had made man on the earth, ... And the Lord said: I will destroy man whom I have created, from the face of the earth, both man and beast, Noah found grace in the eyes of the Lord; for Noah was a just man, ... The earth was corrupt before God, and it was filled with violence."

Giants and humans existed at one time together. Humans seemed to receive preferential treatment from God which enabled them to survive competition with and predation by the giants. Yet humans grew proud of their successes and apparent power rather than remaining humble, reverent, trusting and dutiful to the God which gave them the power and ensured their survival. Instead, they abused one another, killed one another and warred. The history of humanity has demonstrated that the organizing power of society, intended from a spiritual standpoint to provide an opportunity for long-term planning - necessary for long-term survival in the agriculturally dependent society - has usually been retranslated by human leaders into an organizing principle for war.

In seeking to eliminate the ungodly members of the human race who refused, like a sons, to acknowledge and follow the wisdom of their father-like creator, the dominion of the giants would also end; all plants and animals would be "reborn" into a new world: different climate, different continents, different gravitational forces?

600,000 B.C.

A Huge Volcanic Eruption in the Yellowstone Park, central northern USA, occurred. It was 1500 times more powerful than the eruption of Mt. St. Helens in Washington State in 1982. Following the explosion the crater collapsed back in onto itself. Billions of tons of ash were spread over 80% of North America. The sky in the northern hemisphere was darkened for a period of more than 160 days. All plant and animal complex lifeforms perished in North America from the gas cloud and blast wave plus the lack of food and suitable water over the next 6 months.

Climatic change was drastic and precipitated an ice age.

Temperatures dropped by an average of 10 degrees centigrade and all precipitation in the first 5 months following the eruption was markedly acidic. Precipitation itself was markedly increased over the elevated portions of the land mass as the ocean winds quickly became heavy with their moisture attachment to suspended dust and chemicals.

Evaporation over land areas became minimal as the sun heating influence and warmer temperatures were absent.

This resulted in interior regions of continents becoming marshlands first and deserts later. Plant life died from the trauma of the eruption or from the lack of sunlight which followed. Decay released large amounts of carbon dioxide, methane, and ammonia into the air to combine with the volcanic hydrogen sulfide, water, and carbon dioxide. Animal life which did not die from the influence of the volcanic eruption factors and did not die from the floating toxic gas clouds later would survive only if they chose to travel in the correct direction and did so consistently and promptly - southward. Most such lifeforms would die from starvation, injury, cold, or disease. The most advanced (complex) lifeforms on the Earth at the time were forewarned by their spiritual abilities and left the Earth.

Those who left, used technology which was of relative sophistication to what (1996) human technology could be in the year 2020, if no more capital were invested in armaments after 1996, and, if intensive efforts were made to promote the development of spiritual skills and reduce population numbers and industrialization. They would reach their new home in about 1,000 (1996) Earth years. They would remain alive during the journey by using rotating shifts with 10% of the crew active at any one time while the remainder placed themselves in a self-hypnotic meditative state of suspended animation. Nourishment was derived from dried foods, recycled water, new grown foods, reuse - a self-contained closed cycle environment. There was only enough time for one large craft to be designed, made,

stocked, and launched before the volcanic eruption began. The destination would be the constellation CANCER.

398,000 B.C.

Insectoids (highly sophisticated large insects capable of upright stance) acquire the ability to bioengineer population stability. This enables them to more fully concentrate on and develop their unique form of technology, eliminate poverty and the former necessity for imperialism and constant relocation.

395,000 B.C.

The Impact of 5 Asteroids in an ocean location results in a tremendous vaporization of water at once baring the continental shelves and resulting in incessant downpours and electrical storms. Much marine life is killed by the shock of the vaporization of water and drastic change in ocean levels. Great river valleys are cut into continents by the tremendous runoff which accompanies the deluge.

The thick cloud cover over the planet initiates a relatively sharp but short ice age by both blocking out the Sun's radiations and by the cooling effect of the rain. Much vegetation is uprooted and rots, contributing to a slight rise in the atmospheric CO₂ level. After a period of environmental destabilization, higher CO₂ levels, high levels of moisture and enlarged sedimentary plains highly encourage the growth of lifeforms.

Many of the discovered Antarctic meteors are chondrites and are dated from 30,000 to 400,000 years ago as their time of impact. Their rock age has been gauged as 4.5 billion years old - older than any Earth-formed rock. Every such impact would produce catastrophic ecological consequences with a variety of plants and other lifeforms being lost each time.

Between 1984 and 1990, the work of Art Sweet of the Geological Survey of Canada's Institute of Sedimentary and Petroleum Geology in Calgary, and Dr. Gerta Keller, a Princeton University geologist would confirm these facts. They would suggest that fluctuations in surface temperature, precipitation and global sea levels, as well as higher concentrations of carbon dioxide and sulphuric acid in the atmosphere may have contributed to this repetitive "weeding out" of species. All of these indicators could be an expression of large meteor impact against the Earth.

While a later and dramatic geological boundary would be found at geological layers close to 64 million years B.C., Sweet would find that according to pollen and spore samples,

periodic reductions in numbers of plant species occurred between 300,000 and 400,000 B.C.

295,000 B.C.

The Insectoids leave the Earth in order to escape a coming catastrophe. After more than 100,000 years of technological development they have now mastered a form of interstellar travel. It will still take them 1,000 years to reach a habitable planet. They will use a closed-circuit environment on their 33 craft. Each craft will support 121 individuals. Life spans are about 25 years and new members are born and raised to replace aging ones.

230,000 B.C.

The oldest human cell mitochondrial DNA, known to humans to the year 2000 A.D., would begin life now in Africa. Visiting Pleiadians, even greatly advanced spiritually and intellectually as compared to modern (1996) humans, visit the planet Earth on one of their inter-galaxy explorations. Their technological abilities at this point were primitive by their standards today. A voyage to a location like the planet Earth required a suspension of life functions for the 415 Earth year duration. By the time the "astronauts" returned to their home, 1000 years of Pleiadian history would have passed. While Pleiadians made few errors of judgement at this point, relative to modern (1996) human performance, they were not perfect.

A team of approximately 100 landed on the Earth.

Their encounter with the lifeforms on the Earth would be largely uneventful to the Earth. They marvelled at the range of complexity of lifeforms here. Technological, social and spiritual advances on their own planet had resulted in most lifeforms there being bioengineered into beings capable of thought and emotional expression.

Inter-species communication was also highly integrated with the use of combinations of spoken language, mental telepathy, hypnotic transfer, semiotics, imprinting and modeling, and behavioural conditioning. All beings worked together to achieve a symbiotic relationship from which each benefited and in which there existed little justification for negative emotional expressions. Each species and the individuals involved led lives without material deprivation or disproportionate levels of responsibility. While such an environment was "heavenly" by Earthly comparison, emotionally negative qualities - as expressed by Earthly hominids, attracted the intellectual interest of the visitors.

The Pleiadians were amused, curious and horrified by the intensity of such expressions - though at this time infrequently acted out. Collectively, the team were under orders to observe only. A dissident group, amongst the astronaut community, decided to effect

several experiments. Their rationalization was that by producing an hybrid perhaps most of the frustrations, anxieties, and conflicts currently being expressed could be reduced and a more peaceful relationship between the hominids would result.

Before leaving, and in secret, this team bioengineered the combining of DNA from themselves with that of several mammalians. The result, born after their departure, were the pre-Neanderthals. At first, these human-like hominids would be the "ugly" mutants within their societies: ignored by some, revered by a few, sometimes killed as "satanic" infants, occasionally allowed to intermarry, and, frequently excluded from the genetic group they had been born into. These conditions, together with the ensuing environmental changes, would result in few surviving.

The pre-Neanderthals would become the first animals of record on the Earth to demonstrate great cultural innovation. They developed ritual burial customs in which the corpse is buried with provisions believed necessary to assist them on their journey into "another world", communicated to them by the Pleiadian "gods". It should be noted that these early humans looked up to their Pleiadian "fathers" as a domesticated cat or dog would look to a caring and benevolent human master. Much of what the Pleiadians could do as a matter of course would inspire reverence and wonder in the pre-Neanderthals. Consider how you might respond to a human if you were a cat in modern times. The human has the ability to turn the "sun" off and on at will; to magically materialize food, seemingly without effort; to provide you with shelter from the vagaries of the climate; to protect you from larger and threatening animals - all in apparent grace for your presence, love and obedience.

The pre-Neanderthals became skilled hunters with a knowledge of fire and a highly developed social system which allowed the efforts of "specialists" to be set aside for service to the sick, elderly and wounded individuals. Thick-boned and with expansive chests, by modern (1996) average human profiles, they were much stronger than any average human. Compared to the modern human, their brain was larger. It would not be until the 1970s and 1980s that human neurophysiological researchers would determine that "intelligence" did not relate to the size of the brain of a being. Rather, intelligence was a factor of the structural complexity (capability) of the organ together with the use to which it was put (through positive experience, training, and self-direction) less the influence of disease, injury, toxic substance exposures, and, negative conditioning. Pre-Neanderthals were robust.

In appearance they resembled modern humans in height and general form. Their skin was a greyish-black colour and they possessed exceptionally powerful bodies. They had a large face and big cheek bones, a muzzle-like protruding jaw, called a mental eminence (chin), and large eyebrows. The places on the outside of the jaw where chewing muscles had once been attached were grossly enlarged, indicating tremendous torque in the bite. Between the last two molars and the upward thrust of the rear of the jaw were gaps of almost a quarter of an inch. This physical design, neither present in earlier species of hominids or in the later humans, shifted the chewing function farther toward the front than it would

otherwise be. A thick mat of hair covered much of their body, being longer on their heads. The feet and palms were largely hairless and there was a thinning of hair on the buttocks and at the temples.

They did not have the capacity to speak; they communicated by thought transfer, semiotics, signs and various cries. Their diet was a combination of small mammals and rodents together with a wide variety of leaves, vegetation and berries. Larger wild animals were likely added to their diet when they found the remains of fresh kills by carnivores. Such carcasses may have been left by a singular carnivore which had eaten its fill, or, a group of Neanderthals may have frightened the carnivore away rather than allow it to drag the remain back to its den or family.

200,000 B.C.

By this time, Neanderthals (human-like primates) were becoming established on the Earth. They and their descendants would persevere and enjoy life for as long as they were not abused and manipulated by other beings with more sophisticated reasoning skills and much more aggressive and intolerant behaviours.

150,000 B.C .

The Neanderthals began to appear in Europe. They had flourished in Asia throughout the increasing and subsiding cold of minor and major ice ages.

144,000 B.C.

The second last major cooling of the Earth begins. Continents are covered to a depth of 2 miles in some places. Glacial action took place over all of the older mountain ranges. As an example, glacial action took place in all the mountains of China, north and south, but the ice did not reach into the valley floors.

The heads of animals pictured in the calendar of Tiahuanaco in South America included those of toxodons, which are presumed to have died out at this time. In the Hava Supai canyon, in northern Arizona, a rock carving looks quite like the image of the tyrannosaurus standing on its hind legs. It also died out about this time. In another rock image in Big Sandy River in Oregon, a portrait of a stegosaurus has been found sculpted.

80,000 B.C.

A sudden cataclysm happened at this time which completely changed the face of the Earth. The impact was so great that large areas of the Earth's crust responded with a ripple effect and submerged regions became land and dry areas became submerged. A Lemurian continent would have extended from the Himalayas to Australia and another continent, Hyperborea, would have existed north of the Gobi Desert, which then would have been a sea.

Two meteor impacts, accompanied by huge explosions, resulted in a reversal of the magnetic field of the Earth and a shortening of the year from 412 days to 360 days. A single meteor, approaching the Earth split into two fragments under the combined stresses of the gravitational fields of both the asteroid and the Earth. The first, resulted in a large area in the Pacific Ocean region becoming depressed. It was the larger, at about 450 megatons of explosive force. Fireballs, tidal waves and the rippling effect of the Earth's crust resulted in the immediate deaths. The second explosion would have been greater than 115 megatons in strength, penetrated the Earth's crust to a depth of 10 kilometres and melted and recombined the rocks in the Sudbury, Ontario, Canada region resulting in rich deposits of nickel, copper, gold, and other precious minerals. The depression is 200 km in diameter. Other deaths followed from irregularities in the climate of the Earth for a period of more than 140 years.

Part of these irregularities resulted from the fact that the magnetic shift was not instantaneous and that during the null period of magnetism the combined shielding influence of the Earth's magnetic field and the ozone layer from cosmic radiation was reduced by more than 50%. Read Appendix: "RADIATE" to more fully grasp the significance. Much of the terrestrial life which could not or would not take on a nocturnal existence, become amphibian, or, highly restrict their daylight open air activities would die. The null period of this reversal lasted about 10 years.

Hudson's Bay, Canada was created by the second impact. A very ancient civilization flourished in the areas we know today as Peking, China; Tibet; India; Afghanistan. Humanoid populations at this time would have been completely destroyed. An ancient Indian Aryan saga, the Mahabharata states that "60 million people in great cities were killed in one dreadful night." The Troano Manuscript of the Maya says, "The lands of the West (Mu) were continually shaken in the night. Twice upheaved, they broke into 10 pieces and sank, together with millions of inhabitants."

Fossil shells indicate that in earlier times the Earth's year was 412 days long. At this point the year, by a change in the Earth's solar orbit, became 360 days long. Megalithic monuments in Britain, such as the circles of Avebury, represent a calendar of 360 days. In all ancient classical writings of the Aryans, there is a year of 360 days. The Aryabhatiya, the ancient Indian mathematical and astronomical work, says: "A year

consists of 12 months. A month consists of 30 days. A day consists of 60 badis. A nadi consists of 60 vinadikas." The ancient Babylonian year was of 12 months of 30 days each. Ctesias wrote that the walls of Babylon were 360 furlongs in circumference, "as many as there are days in the year." The Egyptian year was originally 12 months of 30 days each. The ancient Romans also had a year of 360 days. Plutarch wrote that in the time of Romulus the year was made up of 12 30-day months. The Mayan year was of 360 days, called a tun. The Inca year was divided into 12 quilla, or moons, of 30 days. The Mayan were exact: The Mayans computed the synodal period of the moon as 29.5209 days, as accurately as humans could calculate it with their most sophisticated equipment in 1980. The ancient Chinese calendar was a 12-month year of 30 days each. At some point a dramatic change occurred.

A moderate decline in the global average temperature would have prompted a period of climactic change - enough to result in lifeform stresses without initiating an ice age.

70,000 B.C.

The Neanderthals had now spread throughout Europe and western Asia. When they would reach their greatest presence, they would suddenly disappear. As primates, their powerful form and basic intelligence made them formidable foes against other predators and any grazing animals.

60,000 B.C.

Megalithic sculptures were discovered at Marcahuasi, about 80 kilometers northeast of Lima, Peru, in 1952, by Dr. Daniel Ruzo. The area is now a plateau at an altitude of 4,000 meters, where the air is cold and hardly anything grows amidst the granite rocks.

Standing in an amphitheatre of rock, Ruzo found himself confronted by the enormous figures of people and animals carved out of stone. Caucasian, Negro, and Semitic faces adorned the figures of humans. Lions, cows, elephants, and camels, which had never lived in the Americas, surrounded him. There was a figure of an amphichelydia, an ancient ancestor of the turtle only known before Ruzo's discovery through fossilized remains. Sculptures of the horse were also present even though horses died out in the Americas by 7,000 B.C.

In Costa Rica, Guatemala and Mexico, hundreds of perfectly shaped spheres made of volcanic rock were found in the jungles during the early 1950's. Their sizes range from 2-1/2 meters to a few centimetres. A number of the larger ones are estimated to weigh as much as 16 tons. Such globes are not found elsewhere in the modern world. Some of the

balls rest on stone platforms. Many are arranged into clusters, in straight lines, or, in a north-south direction. Some groupings form triangles, squares or circles - suggesting that these megalithic markers might have some astronomical or navigational significance.

Also of this antiquity, a small steel cube, 67 mm by 47 mm, fell out of a block of coal at the foundry of Isidor Braun of Vocklabruck, Austria, in 1885. A deep incision encircled the block which had two faces and its edges rounded. Its perfect form and evenly rounded edges preclude it from being a meteorite.

58,000 B.C.

The Third Bioengineering of Earth humanoids is instigated by visitors from the Pleiades star cluster in the constellation Taurus. While visiting the Earth, a crew of 3, noticed that Neanderthal hominids were closest in physical form to themselves. They were unaware of the earlier bioengineering effort made by their long distant past ancestors except through "galaxy travel myths" of their culture. These "angels" were intrigued by the similarity of these lifeforms to themselves with an obvious suggestion of diminished development and capability. These spiritually polarized Pleadians were unbalanced in their development at this time: unable to integrate spiritual ideals with physical practicality and the reality of emotional expressiveness present in their subjects of interest.

During the development of spiritual skills - humans, their Pleadian "angels", and, possibly other individual spaceforms - may become dissociated from the positive life appreciation of their physical bodies through a polarized concern for their total subjugation of personal will to the "direction of the Holy Spirit." While there is no doubt in their awareness as to the great improvement in their decision-making, positive contribution to the universe and their rapturous sense of contentment and peacefulness - unappreciated emotions connected to their physical bodies can become expressed in a sense of grief or loss.

As an example, the lustful form of physical sexual desire and its attendant intense physical and emotional passion experienced by most modern (1996) humans - is completely transcended by humans and spaceforms which have developed their spiritual skills to this level of strength: there is no felt need, anxiety, preoccupation, pressure, desire, or attraction to any form of such physical involvement. Nor is there any rejection, fear, or negative suggestion regarding the activity. It is as though the identity involved has never experienced such feelings and motivations and is completely dissociated from them. This is due to their maintaining their physical balance with positive relationships, diet, and self-regulation.

The exposure of such persons to environments in which such feelings and activities are expressed can encourage a sense of loss, curiosity, appreciation, and expectation in the spiritually polarized individual. At that point, a form of "floating" anxiety appears which

periodically invades the awareness of the individual with the temptation of "it might be (positive) to feel and express that form of (love) - again." This small group of polarized Pleiadians, exposed to the "naturally" physically responsive and expressive hominids felt this temptation to "know" this form of awareness.

Still grossly different, the Pleiadians, now banished from their home planet by the fact of their spiritual "mutiny", hoped that they could somehow integrate with and live with the Neanderthals. Their polarized development encouraged them to feel lonely as they compared their lifestyle with that of the playful and carefree hominids; they sought to interact with these earthforms.

They first took Neanderthals under their control and direction much as humans would later domesticate cats. They yearned for the carefree attitude which hominids had at that time, their playfulness, and their physical sensuality - which was mainly demonstrated by extensive grooming practices, cuddling, and an enjoyment of the food they hunted and gathered. Mating between the Pleiadians and the Neanderthals proved possible at this time and the offspring emerged as "albino"-type minority members of the community. At first, these "pre-humans" would be the mutants within their societies: ignored by some, revered by a few, sometimes killed as "satanic" infants, occasionally allowed to intermarry, and, frequently excluded from the genetic group they had been born into.

This third bioengineering , like most such experiments, also left a weakness in the product: an inability to internally produce vitamin C, like all other animals. Constant availability of vitamin C to the mammalian life system maintains a slightly acidic level in the internal environment. This deters fungal, bacterial and parasitic growths - including cancers. Once this automatic production of the vitamin within the body is lost, external (food) sources become mandatory to sustaining average levels of health; otherwise, the individual becomes acutely ill and dies.

Citrus types of fruit are primary sources of vitamin C, and, in tropical regions are relatively easily found. In other climatic zones, a simple human diet is deprived of citrus products and easily available sources would become potatoes, vegetables, and, meat. Largely a vegetarian in heritage, the human would be forced - for the sake of survival - to become an omnivore. As population density increased and humans were displaced to regions more remote to citrus abundance, humans would graduate to a carnivore-like diet. Eating meat and digesting it with the long intestinal tract of vegetarian animals - would produce chronic health and mental challenges.

Animals which produce their own requirement of vitamin C within themselves usually have a once-a-year or one period per year during which they are sexually active. The level of vitamin C production is inadequate during that period to counter the negative stresses of changes occurring in the environment. The individual lifestystem reacts as if its survival is jeopardized. With the anxiety and loneliness of fear and uncertainty, the individual becomes more passionate in its sensual behaviours. The reactive response of activity (rather than relaxation) encouraged by the sense of a threatening environment - results in

sexual excitation in the absence of sufficient vitamin C supplies.

The coupling of biological (and intellectually unaware) feelings of companionship "need" together with a compulsion to "act out", for humans, results in an intensity of sexual coupling. It is the intensity of these emotions which inserts memories of these experiences of uncontrollable ecstasy during which all other concerns and anxieties and fears are removed from consciousness. This blissful feeling, in these circumstances can easily become addictive - if the perception of uncertainty and danger remains. Cultural expectations can replace environmental negative stressors as vitamin C robbing agents.

The sexual organs of most humans are physically capable, with an appropriate diet, of adapting to different levels of sexual intercourse frequency - if the rational mind perceives such as acceptable and if the emotional reserves of the individual are free of anti-sexual energy blocks. Thus, the result of this loss of vitamin C production capability was a capacity for heightened sex drive. Unaware of more constructive coping skills, exposed to a social and physical environment of increasing challenges, deprived of regular adequate vitamin C sources, and, encouraged to retain emotional energy blocks and to build intense experience memories - humans increased in their ability to reproduce. With bioengineered greater capacity for spiritual awareness came a greater capacity for physical dependency: a Jekyll and Hyde combination of constructive behaviours and motivations side-by-side with destructive behaviours and intents.

Living side by side with the Neanderthals did not prove acceptable.

The more rapidly expanding population of Homo Sapiens entered into conflict with their larger and stronger neighbours. Over the next 30,000 years, Homo Sapiens would be driven by their hormones. Unmediated in their relationship with each other, their neighbours and with the environment - their frustrations would be expressed in anger, and, anger remembered with intensity would become hatred.

For many years, Homo Sapiens would admire and learn from their Neanderthal neighbours.

It would be population density and species' mate recognition that would push the two groups into competition. In a competitive context, Homo Sapiens would eventually win.

Species' mate recognition systems tend to be extremely stable, that is, those factors which mates find attractive in one another. Species survive when these patterns of recognition are strong and well defined, and, when they are additionally suited to the local environment. Neanderthals, while able to utilize tools, had very little capability for environmental adaptation. They were unsuited to tropical climates and socially inept to form larger-than-band political groups. Their lifestyle was largely that of roaming bands which settled for periods of months or years in an area where they would find sufficient food by gathering methods. Grinding of food was much more their orientation than that of canine tearing or cutting. They were largely vegetarian. Their motivation was simple: to live life on a day-by-day basis.

The motivation of Homo Sapiens was heightened by their sexual obsessions and dependency. It exposed them to increasing levels of frustration and increasingly reactive responses. Neanderthals were larger and stronger - Goliaths. But humans were capable of greater emotional intensity. They regarded Neanderthals as sexually impotent. In their frustrations, humans would focus their mental energies on determining methods of deceiving, tricking, and murdering their Neanderthal cousins. With their larger families and expanding population, humans "needed" more hunting territory, more food and clothing, more of everything - than did the Neanderthals with their near steady state populations, hardy bodies, and temperate natures.

In the next 40,000 years, humans would not only destroy the Neanderthal community (in the first 10,000 years), they would also destroy any vestige of its presence - from pride. The presence of a memory of the Neanderthals would be a reminder of the weaknesses of humans: intolerance, vitamin C deficient hormonal imbalance, and self-deception. Like a community of addicts, humans would construe a perception of denial in which they would historically control their destiny according to their weaknesses. An intelligent (self-mediated) being which does not acknowledge its weaknesses is doomed to destruction by them. Humans would be the Adam and Eve who emerged from the Neanderthal garden of Eden lifestyle.

50,000 B.C.

Meteor (Baringer) Crater is formed in the northern Arizona desert when a 3/4-mile-wide depression is produced by the impact of a small iron asteroid. The depression is 600 ft deep. The amount of energy released is more than a million times that of the Hiroshima blast. Dust thrown up from the crater led to total darkness over the Earth for about 35 days.

Temperatures dropped by as much as 10 degrees Celsius.

Nitric acid produced by the burning of the atmospheric nitrogen in the impact fireball increased the acidity of the soils, streams, lakes. 45 days later, water vapour and carbon dioxide released into the atmosphere produced a greenhouse effect on the climate, and raised global temperatures by 8 degrees above the then normal. The diameter of the asteroid was believed to be 95 feet. There are about 500,000 asteroids having Earth-crossing paths which would have a 95-foot or greater diameter after passing through the atmosphere of the Earth while completing a collision trajectory.

The temperature swings, darkness and chemical imbalances decimated world (hand-planting) agriculture and vegetation. The last major ice age began at this time. Many animals died of starvation, injury or shock. Surviving humans were able to augment their diet considerably with scavenged meat and their use of and knowledge of fire came as

a great benefit.

50,000 B.C.

At Baalbek, in Lebanon, the remains of an ancient ruined city are found. It was built by beings who knew how to transport, square, lift and place stones weighing more than a million and a half pounds each! Some of the stones in the foundations of the buildings are 82 feet long and 15 feet thick. In the quarry they came from, situated a half mile away, the largest squared stone in the world called the Hadjar el Gouble ("Stone of the South") has been found. It is estimated to weigh more than 4 million pounds. The great inner terrace of the Baalbeck temple measures 440 feet long by 371 feet wide. Professor Agrest, from the U.S.S.R. has suggested that it may have been a landing platform for giant spacecraft, made by astronauts during their stay on Earth.

50,000 B.C.

The Cocle Ceramics of Panama depict a flying lizard which looks very much like the pterodactyl. These are generally believed to have died out long before humans appeared on the Earth. Evidently some few remaining members were alive long enough for some human or similar being to admire it and paint it on these ceramics.

48,000 B.C.

The shattered right side of a human skull, found in a cavern in Northern Rhodesia, has been found to have an identical appearance to the skulls of soldiers killed by rifle bullets. There is a perfectly round hole on the left side of the skull with no radial cracks. An arrow could not have produced such a perfectly round hole on the left side of the skull and shattered the right side as well. Where did the weapon come from? Who used it?

45,000 B.C.

In Yunan Province, China pyramids emerged from the water after an earthquake. They show cylindrical flying machines engraved on them. There are vestiges of a highly advanced but unknown civilization according to Professor Chi Pen Lao. The Ordos, a grassy scrubland continuous with Mongolia, was stocked with bison, woolly rhinoceros, antelope, and ostrich, which went to large wooded oases for water. Human hunting and

gathering groups hunted the woods and fished the oases. A tremendous blow of dust, stripped by the winds off the Gobi desert region deposited as loess, a powdery yellow soil, up to 350 feet deep over the uplands of North China. Loess covered the middle reaches of the Yellow River where the river comes down out of the Ordos region, the Fen Valley, and the northern sides of the tributary, the Wei.

The big "blow" was caused by a tremendous impact and explosion in what is today the Atlantic Ocean region, of a second Earth moon, captured by the Earth's pull, the attraction of the Earth's moon from the opposite side of the planet and by an alignment of most of the other planets in the Earth's solar system. A further ice age follows as the dust settles from the atmosphere and blocks the warming influence of the Sun.

35,000 B.C.

By this time, Neanderthal (*Homo sapiens Neanderthalensis*) beings have greatly reduced in their presence of the Earth.

30,000 B.C.

The Andes Mountains are the most recent of the Earth's great mountain systems and date from this period. That is, they began to be pushed up from this time as the Americas became pushed westward from Africa and Europe.

A Comet Cloud passes through the Earth's solar system at this time and subjects the Earth to a blizzard of comets in which 343 comets of relatively huge dimension, compared to what humans has seen, discovered and recorded by 1996. Other planets in the solar system either avoid the passing cloud by virtue of their placement, or, do not have the planetary characteristics of a multi-layered ionized and magnetic shell and atmosphere which can retain the water molecules. That is, if they receive impacts, the water content diffuses off into space, or, becomes diffused under the surface of the planet. This adds the final 18% of the Earth's water mass to the planet.

While still representing a relatively thin fluid skin over the planet, this added water mass nows adds a substantial external pressure to the relatively thin solid crust forming the Earth's surface. Wherever the crust is thin, and, the depressions larger - the additional weight occasioned by the condensation of this new water mass will spread the dough-like crust from the centre to the edges and serve to "pull" down whatever land masses may be centrally located within the depression.

As an example, take a quantity of pastry or play dough or mud and make a circular flat

form about 8 inches (200 mm) in diameter with a thickness of 2 inches (50 mm). Place this form on the bottom of a round 8 inch cake pan, or similar form. Now, take a round, flat-bottomed container with a diameter of 5-1/2 inch (140 mm) diameter, place in the middle of the 8 inch "crust" and press down. The edges will rise to create "mountains." In a greatly simplified manner, this is how the Andes were raised.

The Atlantic Basin was both a thin crustal region and the target of the comet "shower"; the European and African continents were more fixed in their positions, so the Americas got the "push." Elevation changes were considerable in some regions such as that of the Nazca-Milne Trench, where elevations range in the 1900s between 21,000 feet (6,400 metres) below sea level to 21,000 feet above sea level within a distance of 125 miles (200 km); that is a slope of 336 feet for every mile (63 metres per km). North American continental climate changes would be considerable with changes according to elevations and to eastward distance.

Much of this Andes mountain building and depression of the mid-Atlantic grew gradually as the atmospheric excessive humidity condensed - a period lasting almost 20,000 years (30,000 B.C. to 10,540 B.C.).

30,000 B.C.

The continent of Mu is said to have existed at a time when the earth would have looked quite different due to continental drift and the subsidence and ascension of lands which have occurred in the interim. Evidence of the culture has been identified from the same writing on clay tablets found in India, Mexico and France. Translation of these has led to estimates that Mu was engulfed by the oceans 12,000 B.C. and ruins in the Gobi Desert have revealed a tomb with the writing and the emblem "M" of Mu which existed 18,000 years ago.

In 1868, while he was in India, an English colonel, James Churchward became an assistant to the high priest of a temple school and studied the inscriptions of an ancient bas-relief. He then learned that in the secret archives of the temple were some clay tablets inscribed by the Naacals ("Holy Brothers") in a vanished motherland whose name was Mu.

The tablets were wrapped in cloth and it was forbidden ever to read them, but Churchward told the priest that it would be a good idea to unwrap two of the tablets to make sure the message had been preserved. The high priest, who was also curious, took two of the tablets out of their wrappings. The writings could then be seen; in time, all of the tablets were translated.

The tablets in India indicated that the world of Mu had come to an end 14,000 years ago. The geologist William Nevin had found some tablets in Mexico which he could not find a

translator for. Churchwood saw some of them and remarked that the characters on the tablets were like those on the tablets he had seen in India. With the aid of the key from the Indian texts, he translated the famous Mayan texts. From his investigations all over the world, Churchwood gathered that the people of Mu were called the Uighurs. They had colonized the whole world. Their capital was in Asia, near the spot in the Gobi Desert where, 50 feet under the ruins of Karakhota, a Professor Kozlov had discovered a painted tomb 18,000 years old. The tomb contained the remains of a king and a queen wearing the emblem of Mu: an M, the Greek letter Tau and a circle with a vertical line through its centre. A manuscript discovered in the old Buddhist temple in Lhasa, Tibet, also relates the end of Mu, and the prehistoric pottery found at Glozel, France in 1925, also reproduces the writing of the Uighurs. Mu may have existed long before 30,000 B.C. and could easily coincide with the earliest indications of humans on the Earth.

Jean-Sylvain Bailly, a noted 18th century French astronomer was astounded by some astronomical charts which he received from India by way of missionaries. On the charts were a system of numerical notations with ten characters, each having an absolute value and a positional value - the equivalent, though in a different graphic form, of the Arabic numerals that are the basis of modern arithmetic. The charts were accurate if one assumed that they had been drawn up at a north latitude of 49 degrees. It is possible that the maps came to the Indian Brahmans from a very ancient people who had lived in the Gobi Desert, the nearest location of that latitude.

No tablets have been found at Tiahuanaco (see later) in South America, but then Pachacuti IV, the 63rd reigning Inca had ordered all such writing destroyed. Worship of gods from the heavens threatened his earthly authority. Before the finds of William Nevis, modern historians thought the ancient pre-Mayans had no writing. Indeed, they believed there was no pre-historic writing until they found some at Glozel. Many examples of such writings have been secreted away in the Vatican or in museums, including the Escorial in Spain, and others in Paris, France and in India. Sometimes, religious customs, like those described in India, have minimized even the knowledge of their existence. In other cases, the tablets are so many in quantity and the interest so low in our pride of today's achievements that little effort has been expended to translate them.

Mu had existed long before, and had been destroyed.

21,000 B.C.

The Cherokee ... come from another planet when the earth was being restructured after a shift on its axis some 23,000 years ago (from 1985 A.D. back)

This information was provided by a Walk-in:

William Goodlett, of Salem, Virginia, U.S.A., 75-year-old part Cherokee Indian, part

European nobility ancestors, and descended from American patriot Patrick Henry; an artist, sculptor, educator, costume designer and philosopher; has made a dozen out-of-body visitations to other planets; has total recall.

(he) deliberately chose to come here from another galaxy to understand earth life and to help earthlings realize that we are all one. ... He was born into that body, choosing a Cherokee heritage because that tribe began in his own native planet, which he visited in spirit form. It is in the Orion constellation."

The Orion constellation is noted as the most brilliant of those constellations viewed from the Earth. It is also referred to as the Great Hunter or Celestial Warrior. It is visible from every human inhabited part of the Earth. Early Babylonian writings refer to it by the name of their Sun-god. Also referred to by the name Betelgeuse or Betelgeux, "Arm of the Central One", it is known in many human cultures as a "Martial Star" and has been given the name of national heroes, warriors, or demigods. In Greek myth, Orion was simply a great and powerful hunter, said to have claimed dominion over every living creature. In myth, Orion is the giant who is said to have pursued the Pleiades and was consequently blinded. On climbing to the top of a great mountain where he faced the rising sun, his sight was restored. A very popular Arabic name was The Strong One. In Babylonian and Hindu writings, Orion is associated with wintry storms. Writers in other cultures refer to Orion as the bringer of storms, clouds, peril at sea.

Orion, under the name of Sahu, was one of the most important sky figures to the ancient Egyptians, and was regarded as the soul or incarnation of the great god of the afterworld, Osiris. On wall reliefs at the temple of Denderah, he is shown journeying through the heavens in his celestial boat, followed by Sirius who is identified as the Soul of Isis. In some of the oldest Egyptian writings, the king is promised a celestial journey, borne by the dawn light ... by the command of the gods do you live ... to the realms of Orion. In Egypt, the only mode of transportation suitable to demonstrate a device which the traveller entered and went long distances in was a boat.

Betelgeuse is the only marked variable among the 1st magnitude (brightest) stars. The light changes were first recorded in 1836 with its peak brilliance being reached in the years 1839, 1852, 1894, 1925, 1930, 1933, 1942, 1947, and its minimum brightness being noticeable in 1927 and 1941. Betelgeuse, or Alpha, is not only among the largest, but is also one of the most luminous of its class. At a distance of 520 light years, its luminosity is about 14,000 Suns at maximum and about 7600 Suns at minimum. In volume, Betelgeuse exceeds the Sun by a factor of at least 160 million even at minimum. Yet the actual mass of the star is probably no more than 20 solar masses. Such star material has such a low density that it has often been called a "red-hot vacuum."

Lesser stars in the Orion constellation include Beta (Rigel), Gamma (Bellatrix), Delta (Mintaka), Epsilon (Alnilam), Zeta (Anitak), Eta, Theta, Iota, Kappa (Saiph), Lamda, PI-3, Sigma, and others.

With the arrival of the BLONDS, another bio-engineering of hominoids occurs. The Neanderthals are "modified" to hopefully become more physically representative of the BLONDS. As another arrival from the Pleiadians occurs about this time, also with an intent to modify the Neanderthals, the particular result of the efforts of each will become hidden through interbreeding.

Still unknown to these highly technologically and spiritually advanced spacebeings at this time, relative to modern human progress, is the fact that as a lifeform is manipulated to adapt within a particular environment to take on some of the characteristics of its "gods" - who come from another environment, so that lifeform becomes further and further at odds with an ecological balance in its surroundings. ALL bioengineering efforts made by various spaceperson crews have been made by individuals who have lost the balance of their spirituality. While recognizing and having reverence for the God of the universe, they have lost faith in the direction provided by the Holy Spirit, as the communicator of God, and seek to counter their despair and loss of faith by the manipulation of other lifeforms: a lack of spiritual respect for the freedom of other lifeforms.

The resultant manipulated beings possessed abilities which were partly advantageous for the Earthly environment and for the originating environment of the spaceculture and partly disadvantageous to both. In other words the offspring of this bioengineering come to behave, respond, and feel - in either environment - as strangers in a hostile environment. In the long-term, without a considerable spiritual strength in leadership and a very positive influence of culture, succeeding generations would likely become increasingly unsuited to their original "home" environment.

As this occurred, individuals of the culturally evolving civilization would have a tendency to develop, under the increasing adversity which they experienced from the environment - frustrations, anxieties, anger and disrespect for themselves and others of their biological grouping, and, for all forms of life and all variables of existence. The greater the degree of bioengineering, the greater the Fall from Grace; the Greater the Departure from the Garden of Eden; the Greater the distance from the "Heavenly" world of the original, and final, home (?).

Out of this dual bioengineering effort, the origins of the Asian (Oriental) and African (Negroid) human races were derived. Interbreeding with the parentage Neanderthals continued for a time, yet over a period of several thousand years, the now "more human" races begin to shun, discriminate and aggressively and politically deprive the largely peaceful Neanderthals of their "home" territories and their lives. Pride on the part of the seemingly more "conscious" (rational) and technologically "gifted" human cultures results in a growing inclination towards sloth, greed, and gluttony. Changes in hormonal and metabolic processes resulting from the bioengineering "experiments" produce a biological tendency (attraction) for Asian cultures to dominate temperate and northern climates and for African cultures to dominate tropical and subtropical environments.

As a coincidence in both cases, mutations would occur over the next 15,000 years which

would increase their original sexual capacity and sense of sexual desire. Eventually this motivational aspect would become almost obsessional and lead to a considerable rate of population expansion, territoriality and possessiveness, increased aggressiveness, and the development of the non-Neanderthal intense emotions of hate, lust, rage, and a tendency to the development of addictive behaviours. By the year 19,400 B.C. the "new" human races would have fallen into such a degree of denial and pride that they would be slaughtering great numbers of the Neanderthals and driving the survivors into remote or inhospitable Earth climates and geographical regions.

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