Mother Earth and the Butterfly

by Michael Martin-Smith

A chapter from the Dr. Martin-Smith's book "Jump Into Space", dedicated to the long distance aspiration of Man to the Sky, and coming to a vision of the Mother Earth, seeded some billion years ago by comets, and now ready to give birth to a Solar Civilization.

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Mythology and Religion - "The Fires of Prometheus"

In the last chapter we explored the origins of Life, and of the world we live in. I put forward the idea that evolution is a creative force, with a sense of direction, and that this direction leads, via the growth of mind, technology and intelligence, to the conquest of space.

For the sake of survival, let alone betterment of the species, the extension of life into space is now clearly a necessity, considering the climatic, ecological, and cosmic disasters on our planet. Earth is not an island spaceship, but part of a Universal ecology.

If there really is a plan leading towards a future in space, then one would expect to find a leaning towards the sky and space as major themes of human psychology mythology, literature, philosophy and ideology. Carl Gustav Jung was a very widely travelled observer of subconscious psychology, and made the break with his mentor, Sigmund Freud, over the question of whether all or most dreams and psychological disorders take their origin from the repression of sexual desires, specifically the taboo ones of incest. Jung refused to reduce all subconscious motivations to the sexual. From travelling the world and meeting people from many cultures, he derived the ideas of "Archetypes" and the "Universal Unconscious".

He discovered that familiar themes occur in dreaming among peoples of all races, sexes, and creeds, from the Kalahari Bushmen to angst-ridden central European sophisticates, often involving the figure of a "Wise Old Man", or the lotus flower images of flight, or of the "Earth Mother". These symbols he called "Archetypes", and he considered the to be manifestations of something deeper than the individual personality. They also appear as recurring themes in literature and the arts, giving them universal appeal. The wizard Merlin, Star Wars' Obi-Wan Kenobi, and Gandalf are really all the "Wise Old Man", helping youth on its quest. He considered the Archetypes as the signature of a universal mind. The racial mind exists at a deeper level than the Freudian Id and Ego, and has a long history in human philosophy and religion. The idea of achieving fulfilment through the submergence of self in the greater or universal Self is at the root of many religions, most markedly in Buddhism, where the God is seen as an impersonal, unnameable "suchness": this is taken to great extremes where the idea of hurting another creature is deeply repugnant because, in part, it involves hurting an aspect of one's Self. In the Jungian scheme of things, the myths of humanity were not mere fireside entertainment, but drew their power from the fact that they strike a chord in human consciousness,

in the racial experience of our species. The Greek myths of Oedipus and the Judgement of Paris still retain an emotional power in the 20th century minds, despite vast cultural differences from their intended audiences. The idea of a man who seeks to avert his fate, by separation from it, only to lead himself inexorably into the mire, is a story of all ages, and the blind prophet Teiresias who reveals the truth and foretells the inevitable doom is, again, the archetypal Wise Old Man, while the daughter Antigone, as Oedipus' sole companion in exile, like Lear's Cordelia, is another archetype. Indeed, according to Jung, the myths of Mankind were the means by which the collective unconscious communicates with conscious minds; the process continues in our modern world, using the old archetypes in modern dress.

Early Cosmic connections

If Humanity is truly destined for the stars then mythology, past and present, ought to reveal an interest in that direction, and, indeed, they do. The first races of modern humanity, Magdalenian, Aurignacian and Cro-Magnon, preceded the end of the last Ice-Age, about 12,000 years ago, and left no written records. However, they painted caves with contemporary hunting scenes, and wore clothes of considerable craft, ivory and precious stones. In some Magdalenian caves there have been found collections of neat round pebbles, evidently used as counters of some kind, on which were depicted images of the Sun, phases of the Moon, and caricatured constellations; this is not put forward some new "ancient astronaut" theory, but merely to suggest that the earliest known symbols to be drawn by humans relate to the subject of this book. The phases of the Moon were thought worthy of observation and recording long before they could have any conceivable meaning.

The observations of Sun, Moon, and constellations were calendrical in origin. The planting and reaping of crops by settled communities, and, before then, the advent of spring for migration purposes necessitated study of astronomy, and constituted the first exploitation of space resources!

In Egypt, the flooding of the Nile, vital as it was for the inundation of the fertile Delta region, was marked by the appearance of Sirius or Sothis in the summer sky, and led to the first calendar. The inadequacy of this calendar led progressively to our Gregorian one of 365.2422 days to the year. Recent discoveries of the alignments and structure of the Pyramids of Egypt, have led to a remarkable recent publication - "The Orion Mystery" - by Robert Bauval, in which it is suggested that the Pharaoh, on demise, resumed his identity as the god Osiris, identified with the giant hunter-figure of Sahu, or Orion, alongside the heavenly Nile, known to us as the Milky Way. Thus the prayer "as it is in Earth, so it is in Heaven" held for the Egyptians an older, and far more literal meaning. The Egyptian monarchy, its funeral and coronation rites, were thus literally dependent upon the correct reading of the pageantry of the night sky, and the function of the Pyramids was to integrate the world of Man with the Kingdom of God in the person of the Pharaoh. There is much more of interest in this work, and remarkable discoveries about the religious life of ancient Egypt are likely - but enough has been said, I think, to justify my belief that the science of astronomy has played a vital role in human civilization from the outset. The Egyptian myths, on another level, of daily death, rebirth of the Sun, and the annual death and rebirth of Sirius are clear attempts to describe and account for the most vital and obvious cycles of the day, and the seasons, while the lengthening of nights over the year was colourfully explained by the myth of Hades and Persephone in Greece. These calendrical myths are early uses of the resources of space, and without them no systematic agriculture or government could ever have been developed. Long before people thought of venturing into the sky, they had "conquered" Time, and learnt how to measure it and predict its passage. From this came the ability to plan and foresee, with all their implications. For some, no doubt, it meant a loss of "innocence" or "freedom from Care for the morrow", as implied in the myth of the Fall of Man from a state of grace, for, ever after harnessing of Time, people have been yoked to the tyranny of the clock. One measure of the complexity of a civilization must surely be the extent and accuracy whereby it measures and records the passage of Time.

Early people also observed the constellations in the sky, and being by nature inclined to impose patterns in their surroundings, saw in them people and beasts - larger and more perfect replicas of

the animals they shared their world with. In many cases, however, they led on to legends which reflected their deepest yearnings. For example, the Lady Andromeda chained to a rock and rescued by the valiant Perseus is a drama re-enacted every night in the winter skies of the Northern Hemisphere, and reflects the age-old saga of the Hero, who rescues the Maiden after countless wild adventures, with the help of the gods from heaven and their magical devices and spells - a metaphor for the rewards offered to the Adventurer and Voyager. The fierce Lion, subdued by Orion, commemorates the subjugation of the strongest of the beasts by human wit and weapon - an early triumph of technology.

The debt owed by humanity to the Sky, and its role in launching humankind on the road to civilization, and to the stars, is further shown in two considerations. Firstly, long before smiths ever mined and smelted iron ore, this most valuable of metals was freely, if spasmodically, available in the shape of meteoritic iron; there seems little doubt that the Ancients knew full well of its origin in the sky, and drew from it proof that the gods lived in a real Kingdom.

Initially, the Swastika is believed to represent the rebirth of the hibernating bear in the spring, as it rises towards the zenith in the summer, and the rebirth of the natural cycle, but later the triumph of light over Darkness as in Manicheism, and, perhaps, coincides with the Cross symbol of the resurrection bringing the Christian triumph of Good over Evil, and Life over Death. This is not meant to be a comment or "explanation" of the divinity or otherwise of Christ and his mission, nor to demystify it, but to add another dimension, or resonance, to the symbolic resurrection of the Cross. The Cross, in other words, is an archetype, and, as such, I believe, it may well be derived from the Heavens.

The ancient Egyptians also venerated a "Cross of Life", and rebirth called the Ankh. This is frequently worn as a talisman of costume jewellery to this day, while to the Buddhists this symbol appears as the Wheel of Life and Death. Others have cited the swastika symbol as evidence of a widely observed Great Comet.

The foregoing, I believe, illustrates the importance of the sky and stars in forming myths and symbols, and the way in which people attach great importance, throughout the ages to these symbols, formed as they are in their innermost being. It argues strongly, I feel, for a central role for space in Humanity's deepest imagination, and our intuitive awareness of the links between our race and the heavens.

Wisdom from Heaven

The linkage found further expression in many of our most famous myths; the Greeks and the Babylonians believed that civilization in the shape of fire, metallurgy, laws, architecture, and medicine were gifts from heaven. The Greeks told that Zeus, father of the gods, achieved supremacy only after conquering his father, Saturn, who was bent on eating all his children; after a terrible struggle in which he was aided by the giant Titans, he succeeded in vanquishing Saturn, and enthroned himself as father of the gods. Zeus called together the gods and Titans, and bade them create Man, who would cultivate the Earth, and honour them with sacrifices. Man was to stay servile, and there was an absolute prohibition on their acquiring Fire, as this would make him too much like the gods. However, one of the sons of the Titan Japetus, Prometheus, loved Mankind and secretly brought down the gift of fire from heaven, with which our ancestors proceeded to forge metals and build civilization. It is likely that our first use of fire, as well as iron, was derived from space, as blazing meteorites or thunderbolts. Eventually, Zeus, seeing the smoke of many fires, caught Prometheus and punished him by leaving him chained to a rock. By day a great vulture was to eat out Prometheus' liver and, by night, left the liver to regrow for a further meal. Man was punished by being given the gift of Pandora's box, from which escaped all the ills that now afflict Mankind. The Greeks saw Zeus and the gods, not as all-powerful, loving Creators and protectors, but as projections of natural forces and that the correct mode of life was to live in balance with them. The

morality was not such an absolute one as ours, with Man bound to obey a Good God, but based on Man in balance between unpredictable forces.

It is not therefore a blasphemy to suggest that, in reaching for the stars, we have tamed the gift of Prometheus, and are moving up to take our rightful place alongside Zeus at Mount Olympus, as Prometheus the benefactor would surely have wished. The true importance of the legend of Prometheus for our story lies in two natural ideas, implied in the tale, and in many of the creeds and philosophies which have found acceptance among Humankind. They are, simply, these.

Firstly, that Man is not a perfect creature; there is room for improvement, and the possibility of achieving it, and, secondly, that the source of Wisdom and Power, and the environment necessary for its accomplishment, is to be found in the sky. In the Prometheus story, we see both these ideas at work. Fire, the means of improvement in our lot, has to be brought down from Heaven, by an agent working for our interests against the gods.

In ancient Mesopotamia, the shadowy Sumerians emerged in the land bordering the Persian Gulf between the Tigris and Euphrates during the fourth millennium B.C. They are believed to have been immigrants into the region, perhaps from Central Asia or India. In any event, they acquired civilization very rapidly; by about 3000 B.C., they were farming systematically, working in bronze, writing, and building vast "stairways to the gods". The Ziggurat of Ur, and its near contemporary, the step pyramid of Saqqara, were triumphant monuments to the newly acquired arts of civilization, and the genius of the rulers who could conceive of such new and unearthly shapes. They also produced the first known written work of literature - the Epic of Gilgamesh. Its date of writing is unknown, but is believed to be 1500 B.C., and is probably derived from far older sources. It tells the tale of a heroprince Gilgamesh, who seeks immortality, and freedom from ill. To this end, he rides into Heaven to seek out Enkidu, King of the gods, to cajole him to yield the secret. He sets off on the back of a gigantic eagle, at such a speed that he feels himself an increased weight being pulled back towards the Earth and, looking back, sees a patchwork quilt of green fields and blue rivers and seas from his vantage point in the sky.

Ancient Astronauts?

The point is not that this is proof of the visitation of ancient astronauts, although it would be foolish to discount this entirely; <u>von Däniken</u> might have the last laugh on us all. Rather, I see this as another illustration of the idea that people have always sought betterment from the skies. In describing the medical aspects of space development later, we shall see that Gilgamesh was not, actually, very far in error. Later in time is the "Berossus fragment", a history of Babylon and the preceding Chaldeans and Sumerians by a high priest named Berossus, writing in about 400 B.C. This fragment survived into Hellenistic times and was transmitted to us by the Greek historian



Astronaut-like drawings at Val Camonica, Italy

Plutarch. Berossus gives us the remarkable accomplishments of the Sumerian people.

In earliest times, he says, the people of the area were nomads and illiterate barbarians, when a race of amphibious sky people called the Annedoti (unsightly ones) appeared from the waters of the Persian Gulf by day, and had to return to the water by night. They came from a watery world among the stars, and were not gods, although endowed with great intelligence. For many years, they ruled over the primitive people, teaching them the rudiments of civilization, laws, architecture, metallurgy, writing, mathematics, and astronomy, and then returned whence they came. This story, wrote <u>Carl Sagan</u> in "Intelligent Life in the Universe", is probably the closest thing we shall ever find to a true "contact myth", fulfilling many criteria laid down as possible evidence of visitation from another world in the past. These are, firstly, a story of visitation in which the visitors are clearly stated to be non-divine; secondly, a description of the visitors in terms not so vague as to be meaningless or biologically absurd; thirdly, evidence of actual transfer of information with or without artefacts, fourthly, a plausible timescale for the interaction with humans - over several decades or centuries - which does not violate the laws of astronomy or physics, and, fifthly, evidence of possible similar contact elsewhere on the Earth with similar results.

As Carl Sagan pointed out, there are no artefacts, and no independent evidence of other contacts, unless one accepts that the Dogon people of West Africa worship the Dogstar Sirius, and its unseen companion, Sirius B, as a result of a similar contact. The case for genuine contact remains tantalizing, but much more will be needed to quell the sceptics - and rightly so, considering the magnitude of the proposition! However, my proposition remains that both the Babylonians, and the Dogons - and by extension the Ancient Egyptians - looked to the sky and its possible denizens as the source of wisdom and power, rather than, say, the depths of the sea, or even their own Inner Consciousness. All of these latter are much more easily accessible than the distant sky; the Ancients could dig, explore caves, lower ropes into the sea, or even use primitive diving bells (Alexander the Great). They could also indulge in mysticism, transcendental meditation with or without the dubious benefit of drugs - indeed, it could be said that the Ancients were more in touch with their own Inner Selves than our sophisticated, harassed, "performance-related" modern business people and executives. There was, however, no way they could realistically expect to attain wisdom, or anything else, from the utterly unattainable Sky - yet it was there, over and over again, throughout the ages that people have, searched for the greatest goals of Humanity. This idea stands, irrespective of whether we were visited by ancient space travellers. We were launched towards a technological civilization in a metaphysical way from the stars, and the end result is the same. The desire to go up into the sky was there both in the Epic of Gilgamesh and the Greek legend of Icarus and Daedalus. These sought to fly from Crete using a machine made from bird's feathers stuck onto a frame with wax. The impetuous Icarus flew too high, and suffered a catastrophic malfunction of his aerial surfaces, perishing upon re-entry, while the wiser Daedalus made a soft landing! The idea of flight, both in the air and space, was therefore not mere metaphysics, but one to be pursued rationally, with the most advanced knowledge of the times. It has been this way ever since.

The dreams of flight and space travel also appear in the legends of ancient India and China. For China, it was flying sky-dragons which gave birth to the Middle Kingdom while as a side-swipe at those outside the Empire, releasing dung into the Pacific from which sprang Japan. In the epics Ramayana and Mahabharata, Rama has to fly from India to Lanka to rescue his bride Sita; the flight takes about 40 minutes in the epic, by flying chariot. This is about the same as by Air India today! Also, there are long and rather detailed chapters on the construction of flying chariots used in aerial and celestial warfare and transport in these epics. The possibility of travel to other worlds crops up here, and also in the Rig Veda or Book of Knowledge, in which the Earth is described as being composed of three spheres of different sizes, one within the other, while the Moon is covered with particles of glistening glass balls. I take the finding of glass spheroids by the Apollo astronauts as an interesting coincidence, but surely the unknown author(s) of the Rig Veda deserve credit for being the first to conceive of the Moon as a world, with a composition, which might be reached, and utilized. It is also believed that the flying carpets of Haroun al-Rashid's Arabian Nights derive from some of the legends of India narrated to the Grand Caliphs' enterprising traders.

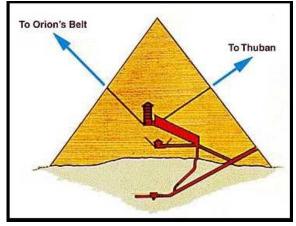
"Heaven on Earth..."

With the Ancient Egyptians, the credit for founding civilization also goes to the sky, in the person of Thoth, called by the alchemists <u>Hermes Trimegistos</u>.

He earned this title by bringing the gifts of Law, Medicine, and Architecture. In legend he descended from Heaven on winged feet and ruled over the early Egyptians. He fathered a son, Aesculapius, by a mortal woman, who began the practice of medicine. Aesculapius carried a magic wand around which were wound two serpents in a double helix, the symbols of royal power. This stick, the Caduceus, is even now the internationally recognized symbol of the physician, the sceptre of Aesculapius.

Aesculapius was the Greek name of a real man, whom the Egyptians called Imhotep.

This man must have been one of the most influential geniuses to have lived, although little known. He lived early in the 3rd millennium B.C., shortly after the first Pharaoh united Upper and Lower Egypt, and was an architect, astronomer, high priest, doctor and lawgiver. One of his titles was "Chief of the Observers" an indication of the importance attached to astronomy/astrology in those days. It would most likely to have been his responsibility to predict the flooding of the Nile, and to give the go-ahead for planting and reaping of the vital food supplies. During the Fourth dynasty, he and his master, King Djoser, embarked on a gigantic, hitherto inconceivable, enterprise. They were to build a "stairway to Heaven", for the Pharaoh; as the embodiment of Osiris on Earth, his resurrection and



The Great Pyramid's Khufu's chamber orientation from http://stardate.org/egypt/undying.html

ascent to the Heavenly Egypt in the Sky after his decease on Earth was essential for the well-being of his subjects, as well as for an orderly succession. On this principle depended the order of the newly created, unified Empire of Egypt, with its vast nationwide irrigation projects, granaries, and ordered life. To ensure this prosperity, the body of the god-king had to be preserved as an enduring symbol of the New Order, and for the stairway to Heaven represented by the ascent of Pharaoh's spirit to the realms of Osiris, Imhotep proposed a revolutionary new scheme; the "tomb" was to be a pyramid executed in stone. The result was the Step Pyramid of Saggara, which endures to this day. Robert Bauval tells us, in the intriguing "Orion Mystery", that the pyramid complex, begun at Saqqara, was part of a far more ambitious scheme - in the astronomical alignments of the greatest of all the pyramids, there was to be embodied the rising of Orion's belt, to its maximal height above the horizon, at the epoch 2,450B.C, revealing a knowledge of equinoctial precession over a very long time - and, an eventual recreation of the "Heavenly Kingdom" on Earth, in the form of a replication of Orion's belt. It is possible that the assignment of a divine father, Thoth, upon Imhotep/Aesculapius, represents a memory of the original discoveries in observational astronomy which led Imhotep and Dioser to launch what was to become, over the next few centuries, the largest building project in history, or that Thoth was actually a living astronomer, or founder of the guild in which Imhotep and others trained. We shall never know, unless Imhotep's tomb is one day found.

One must imagine the scepticism which greeted this enormous, megalomaniac project. The materials were untried, the forces involved unknown, the labour and expense colossal. To Egyptians in 2600 B.C. this proposal must have seemed more far-fetched and grandiose than our ventures into space seem to us, and yet the will triumphed and the foundations were laid for a civilization which was to endure for 2500 years, and to capture the imaginations of people on Earth for as long as the capacity for wonder and admiration exist. If Bauval's ideas are even partly right - and several scholars are now considering this - the whole Pyramid project attests to a culture that could take a very long-term view; how many of our ephemeral politicians could conceive of pushing through a project which would not be finished by their great-grand children? It is also apparent that, in their belief that the pyramids were essential "launchpads" for the Pharaoh/Osiris to reach the Kingdom - literally - in the Sky, at a specific location, and that this was vital for the good of Egypt - Imhotep and Djoser were, mutatis mutandis, precursors of our own space activists and pioneers. The idea of space travel, and the improvement of the Human future by moving into space, is age-old and instinctive to Humankind - rests!!

Here we have, par excellence, the idea of the sky and space as formative for human development, and for our future. This idea continues right through to modern times, with popular, although, superficial interest in astrology, as well as the astonishing popularity of the "Ancient Astronaut" books exemplified by Erich von Däniken. With remarkable timing, in 1968, Erich von Däniken, a Swiss hotelier, launched upon the world a book called "Chariots of the Gods", which takes as its central idea the visitation to Earth by superintelligent beings from another planet, who created Man out of apestock, and played a part in founding our greatest civilizations, chiefly by building artefacts thought to be beyond the capability of people at the time. Much to the amazement of most people, including von Däniken himself, this book and its sequels sold in the tens of millions, and found many willing to listen. It is true that many of the "impossible" facts have been explained in terms of human ingenuity, or have been proved inaccurate; I can certainly testify that his astronomy is frequently in error. To cite an obvious example, he points to the Pleiades as one point of origin for the gods from an Red Indian Legend. All astronomers agree that the Pleiades, or Seven Sisters, are a young cluster of stars, less than 60 million years old, and therefore highly unlikely as the breeding ground of a mature, space-faring civilization. His observations on the subject of Easter Island are now shown by archaeologists and palaeobotanists to have quite another and much more disturbingly relevant explanation than that of ancient astronauts. Indeed, the "Riddle of Easter Island", far from demonstrating the reality of past alien astronauts, proves the vital necessity of contemporary human ones! However, it is not my purpose here to endorse or refute his thesis: others have performed this task more ably than I could do, and, in any event, he may yet have the last laugh. It is hard to prove a negative.

The point is that the ancient mythology I have described, plus the modern legends propounded by von Däniken, as well as the whole U.F.O phenomenon, point to a very definite human interest in the whole subject of the Heavens, and the desirability of our exploring, and settling there. There is a general subliminal perception that an important part of what we are as human beings comes from the sky, and that is there that we must look for our future. So much is this so that this skyward inclination of humanity can almost be taken as a hallmark of true civilization, and that its absence spells barbarism.

To return to Jung; he lived to see the rise of the U.F.O phenomenon, and saw in this an archetype of the search for meaning, without which the human psyche is incomplete. The U.F.O crews are almost invariably benign and omniscient, and are easily recognizable as the latest manifestation of the "Wise Old Man" archetype.

Life's Unfinished Symphony

In the light of the evolutionary course of humanity, propelling life onwards, and outwards into space,

and the strong mythological and psychological attractions of the concept to so many millions over the Ages, it seems increasingly plausible to link the two phenomena as being manifestations of our true destiny - the habitation of space. This is in no way denied by the fact that, in particular periods, human civilizations decay, and the instinctive drive falters for a while. Change occurs in fits and starts, rather than smoothly.



We have looked at the idea that Humanity has, for many ages, imagined wisdom, ^{*} civilization and technology as a gift to be won in the heavens; let us now consider another equally powerful idea - the incompleteness and possible further development of humankind.

The idea of Evolution, or the replacement of "lower" species by higher ones with the passage of time, is found in many ancient writings. Heraclitus describes life as beginning in the water, as fishes, before reaching the stage of frogs and lizards, then horses and dogs, and next, monkeys and people. Similarly, in the Rig-Veda, such successive stages of living things are described with the idea that "Krishna Man" or perfect Man was to follow us. The Buddha also taught that humanity progressed from life to life by re-incarnation until rising above earthly desires, we become Buddha or Enlightened, one with all things, not separate, yet not extinct.

However, it does illustrate the belief that, in our present state, we are not complete, and are still riven by conflicts between lower selfish animal yearnings, and the more noble aspirations - and that, until we overcome this conflict of desires, we are imperfect.

In essence all the religions widely practiced at present - Judaism, Christianity, Islam, Buddhism, the Bahá'í Faith, and, in its own way, Marxism have in common the belief that humanity has not yet attained a perfect state. They are speaking mainly of the spirit - except Marxism! - but the idea is the same. The philosopher Plato realized similarly that Man was not a complete form - he describes the human personality as resembling a chariot driven by the two horses of Emotion and Intellect, with the driver, or Mind/Conscience, in control, ideally, pulling in the two unruly horses. In the perfect, or complete, person, all three would naturally pull together without coercion. If this situation did occur, it would be argued that there would be no morality, since, if people did naturally that which was highest and best without coercion, conduct would not be good in avoiding prohibitions, or bad, in avoiding virtues - but simply natural and rational.

This may be the true meaning of <u>Nietzsche</u>'s philosophical work "Beyond Good and Evil", and is, perhaps, a realistic reinterpretation of the Nietzschean "Superman". Nietzsche maintained that the challenges and conflicts of evolution would eventfully destroy conventional morality with its small-minded hypocrisies, and replace it with a natural morality in a world of supermen - an idea which has been greatly muddled and abused, partly by Nietzsche himself in his later, madder, years, but more spectacularly by men who found that his phraseology suited their far from superb actions. Nietzsche himself had no time for anti-Semitism, the overweaning state, or the spiritually demeaning ideas of Nationalism - points which his Nazi worshippers conveniently "forgot".

A good and striking modern film showing the evolution of Humanity and the conquest of space as a myth for the 21st Century is "2001: a Space odyssey". It is no surprise that Strauss's "Also Sprach Zarathustra", based on Nietzsche's work of that name, was used as the opening theme music. For in one 15 second film sequence the essentials of what Nietzsche was aiming at were well shown. In this sequence an early man, having used an antelope's thigh bone as a weapon for the first time, hurls it high into the air in celebration; in vanishing from sight, the bone travels 300 kilometres and 3 million years, and becomes metamorphosed into a space station.

This is a most powerful visual demonstration of the idea I outline in this book, especially when coupled with the birth of the "Star Child" at the end. Truly, the idea that "Man is a rope stretched between the Ape and the Superman", is one of universal appeal.

In religion, one today's growing faiths is the <u>Bahá'í Faith</u>. Founded in Iran by their Prophet Bahá'u'lláh in 1844, they were reduced to two adherents in 1862 by massacre, but have now reached every country on Earth, with somewhere between 5 and 50 million adherents. They believe that all the religious prophets - Zoroaster, Moses, Buddha, Jesus, Mohammed and Bahá'u'lláh, are manifestations of one God to an evolving human consciousness, and that Humanity's collective spirit is evolving towards a higher state. In this view, all antagonisms between races, nations, sexes, and religious creeds are unjustifiable errors, which diminish a person's humanity, since all people are of the same body and spirit. This Faith, perhaps alone of the world's great religions, has no difficulties in facing up to the challenges of scientific discovery. They alone also accept, explicitly, that their founder and Teacher, Bahá'u'lláh, is not the last word, and that other prophets will come later.

I make no apology for these diversions into religion since, with mythology, philosophy and science, these represents our attempts to understand ourselves, our world, and the relationship between the two. The Prophet Bahá'u'lláh, incidentally, is the first and only religious leader to have stated expressly that God has created other lifeforms of varying appearances and cultural attainments on other worlds, and my experience of Bahá'ís is that they welcome the positive use of space technology to bring humanity together and solve the material problems of Humankind, as well as welcoming the scientific insights to be gained from the New Astronomy. The idea that a space-faring world civilization could be a material substrate for the spiritual Kingdom of Bahá is not unwelcome to them, and a very powerful one for the coming Millennium. Their recent Chief Guardian, Shoghi Effendi, in "Questions and Answers", prophesied that in the coming Bahá Age Human civilization would extend

into space, while Bahá'u'llah's Son Abdu'l Bahá saw Religion and Science as twin wings of the Dove of Truth.

Looking more from a biological and evolutionary point of view, the late Arthur Koestler also considered the incompleteness of Man in the "Heel of Achilles". He described how Man has evolved very rapidly in 3 million years, largely by super-imposing an enlarged cerebral cortex, with its higher intellectual functions over the primitively emotional mid brain and a reptilian, homeostatic hind brain. In saying that our hearts rule our heads, or "we know what we should do but persist in doing the opposite", we are describing a conflict between the intellectual cortex and the emotional midbrain. In his view the human predicament is that we have evolved so fast that the powerful cortex has not grown sufficient neurological connections to control the emotions of the mid brain, which are often able to colour the functions of the fore brain unduly.

The solution, as he saw it, is that Evolution will remedy this defect so as to ensure the survival of Humankind, or that we could carry out either genetic engineering or brain implant surgery to increase the neural connections from cortex to midbrain. The necessary neurosurgical or genetic engineering expertise is not yet available, but will be within a few centuries, if this is perceived to be correct. Arthur Koestler's "Greater Man" would be very intellectual, even spiritual, in full control of his emotions, but not robot-like or cold, divorced from benign feelings. Aggression and acquisitiveness would be harnessed into higher emotions such as the curiosity of knowledge and exploration, the competitiveness of sports, games, artistic creation. Nationalistic and racial feeling would be despised and checked, much as the desire for cannibalism and human sacrifice is in most societies. This person would correspond very much to Plato's Philosopher-King, or Teilhard de Chardin's Omega Man, or to the religious concept of the Good Person, blessed in the Sight of God. It may be said that such a Man would be dull without his vices and baser pleasures; these, however, are mainly trivial at best, or destructive at worst, and, on the larger scale, are likely to terminate our civilization pointlessly, whether through outright wickedness or mere carelessness. The follies of sectarianism and national cum racial hatreds are entirely base animal emotions dressed in higher clothing, and their extinction would cause us no detectable loss.

Secondly, Humankind would be developing in accordance with the higher side of its nature, which already exists - the result would not be an artificial freak.

Thirdly, the old baser "pleasures and vices" would be replaced by newer, more positive values. Lust would be replaced by love, aggression by peaceful debate and competition, bravado by a search for knowledge and adventure, and irrational hates would become redundant, as they are today at the deepest level. In losing all the -Isms which have poisoned this century, we would have lost nothing of note, and gained an eternity.

St.Paul put things well when he wrote "When I was a child, I clung to childish things: now that I am a Man, I have put them aside". Similarly, we should not miss the seven deadly sins, and our preposterous national, religious, or sexual antagonisms and hatreds if somehow the Greater Human could be evolved.

These two ideas, that of Human improvement and his relationship to space and the Cosmos, are ancient, universal, and very deeply rooted. There are grounds for believing that we are on the verge of realizing these ideas in practice most dramatically when we embark on the infinite ocean of space and adapt, biologically and psychologically, to the new demands and opportunities which will be placed upon us.

One can summarize these two chapters both by an image from nature, and from mythology.

In the Insect Kingdom, butterflies and moths are perhaps most admired for their beauty, and people have always been fascinated by the symbolism of the caterpillar pupating and emerging from the chrysalis as a butterfly. There is an obvious, optimistic, and appealing parallel between the evolution of Life on Earth and its maturation into a space-faring civilization, and the story of the butterfly. The caterpillar emerges from its egg, and devours everything in sight - plant, leaf, even its own eggshell, until, finally, it can gorge no more; it then assumes a pupal condition inside which every tissue and organ is broken down in a crisis of demolition, and is then refurbished and rebuilt over a long winter.

Then Spring comes, and a beautiful, winged, butterfly hatches out which lives and feeds in quite a different manner from its ugly and greedy caterpillar, and spreads to other plants and fields to spread the seeds of life.

In parallel fashion the Egg of Earth has hatched innumerable species, and, most recently, the voracious and insatiable Homo Sapiens, which has devoured and consumed many of Earth's long-husbanded resources. We are now in a time of crisis, even like the pupa; but we stand on the verge of a brand new mode of existence, with vast new opportunities for economic and evolutionary development. Eventually, like the butterflies, we shall fly off to new pastures - the stars themselves.

Finally, to close this exploration of mythology and philosophy, there is the example of the oldest Creation myth of all. Classically, this involves the ripening of life in the Womb of the Earth Mother by the rays of the paternal Sun-God. Mother Earth ripens the seed of Life, and nourishes it to growth and maturity. The increasing evidence that the sperm-like comets deposited the seeds of life on Earth enhances and updates this ancient myth. What could be more natural, and more consistent with this archetypal feminine view of the Earth, than to see, not an Earth polluted by Man's depradations, nor a race on the verge of extinction, but rather a Mother Earth in crisis - even, perhaps in labour, after a 4 billion year pregnancy, with delivery at hand?