

PHÆNOMENA II

The Cave and the Sun

A sourcebook of ideas relating to the perennial philosophy

Compiled by Donald Cooper

...the main Business of natural Philosophy is to argue from Phaenomena without feigning Hypotheses, and to deduce Causes from Effects, till we come to the very first Cause, which is certainly not mechanical...

The Opticks

Isaac Newton

*...That Light whose smile kindles the Universe,
That Beauty in which all things work and move,
That Benediction... that sustaining Love
Which through the web of being blindly wove
By man and beast and air and sea,
Burns bright or dim, as each are mirrors of
The fire for which all thirst; now beams on me,
Consuming the last clouds of cold mortality...*

Adonais

Percy Bysshe Shelley

*...I am the limbs, I am the rack
The prisoner, the torturer!...*

The Flowers of Evil

Charles Baudelaire

TABLE OF CONTENTS

PREFACE..... 6
INTRODUCTION 7
THE ANTHOLOGY..... 12
 ANCIENT EGYPT:..... 12
 THE HERMETIC TRADITION:..... 13
 TAOISM:..... 14
 HERACLITUS: 15
 INDIAN PHILOSOPHY: 16
 BUDDHISM:..... 17
 CONFUCIANISM:..... 20
 GREEK AND ROMAN RELIGION: 22
 PLATONISM: 22
 STOIC PHILOSOPHY:..... 26
 ARATUS: 27
 VIRGIL:..... 28
 JESUS OF NAZARETH:..... 28
 EPICTETUS: 31
 CHRISTIANITY AND THE IMPACT OF THE COUNCIL OF NICAIA:..... 32
 THE CODEX SINAITICUS:..... 33
 THE PYTHAGOREANS, THE ESSENES, CHRISTIANITY AND INDIAN PHILOSOPHY: 35
 SUFISM:..... 37
 MAIMONIDES: 38
 THE CONVIVENCIA: 39
 MEISTER ECKHART: 39
 LEONARDO DA VINCI:..... 40
 MICHAEL SERVETUS:..... 42
 GIORDANO BRUNO: 42
 BARUCH SPINOZA:..... 45
 JOHN DONNE: 47
 BLAISE PASCAL: 47
 ISAAC NEWTON: 49
 THE GREAT COMPOSERS:..... 51
 ALEXANDER POPE: 52
 ADAM SMITH:..... 52
 WILLIAM BLAKE: 53
 WOLFGANG VON GOETHE: 54
 WILLIAM WORDSWORTH: 55
 SAMUEL TAYLOR COLERIDGE:..... 55
 PERCY BYSSHE SHELLEY:..... 56
 LORD BYRON: 58
 ALFRED LORD TENNYSON:..... 59
 RALPH WALDO EMERSON:..... 60
 HENRY DAVID THOREAU: 61
 THOMAS CARLYLE: 61
 LOUIS PASTEUR:..... 63
 RICHARD JEFFERIES: 63
 ARTHUR SCHOPENHAUER: 64
 FRIEDRICH NIETZSCHE:..... 65
 LEO TOLSTOY: 69
 ALBERT EINSTEIN: 70
 ARTHUR EDDINGTON:..... 70
 BERTRAND RUSSELL:..... 71

HERMANN HESSE:	74
ARTHUR KOESTLER:	75
W.B. YEATS:	76
CARL JUNG:	77
ALDOUS HUXLEY:	79
WERNER HEISENBERG:	79
ERWIN SCHRÖDINGER:	80
J. ROBERT OPPENHEIMER:	81
SYSTEMS THEORY:	82
KURT GÖDEL:	82
BRIAN JOSEPHSON:	84
BEDE GRIFFITHS:	85
ABRAHAM MASLOW:	86
YOUNG'S EXPERIMENT:	88
FRITJOF CAPRA:	89
PAUL DAVIES:	90
QUANTUM THEORY AND THE IMPLICATIONS OF BELL'S THEOREM:	92
EUGENE MARAIS:	94
ROBERT M. PIRSIG:	96
RON PENNER:	99
IRIS MURDOCH:	101
JOYCE CAROL OATES:	102
ROBERT LANZA AND BOB BERMAN - BIOCENTRISM:	105
FRED HOYLE AND CHANDRA WICKRAMASINGHE:	108
COMMENTARY	110
ON THE FLOWERS OF EVIL:	110
ON BRIDGING THE "IS – OUGHT" GAP:	111
ON THE DEATH OF "GOD":	113
ON COMING TO GRIPS WITH INFINITY:	115
ON ANOMIE:	117
ON OUR MORAL DECADENCE:	118
ON AN ARGUMENT FOR LIMITED DUALISM:	121
ON THE LIMITATIONS OF MATERIALISTIC SCIENCE:	123
ON THE FAUSTIAN COMPACT AND "PROGRESS":	129
ON THE BLIND WATCHMAKER:	130
ON MOORE'S LAW AND THE ORIGIN OF LIFE:	136
ON "MIRACLES":	138
ON SCIENTIFIC "ATHEISM":	141
ON IMPENETRABLE MINDS:	143
ON FAITH:	144
ON BEAUTY:	145
ON THE THREE DIMENSIONS OF REALITY:	151
ON THE WISDOM OF INDIGENOUS CULTURE:	155
ON THE MYTH OF HERCULES:	156
ON AN IMPLICIT ETHIC FOR OUR TIME:	158
ON A RADICAL CONSCIOUSNESS:	160
ON THE UNIFICATION OF THE WORLD:	163
ON THE OTHER HAND:	167
ON MODERNISM AND POSTMODERNISM:	167
ON GURUS:	168
ON MONISM AND DUALISM:	169
ON REASON AND PASSION:	172
ON THE MEANINGS OF EXISTENCE:	173
ON THE ACTION AND THE THING:	174
ON THE GENIUS WITHIN:	174

ON THE CAVE, THE SUN AND THE RETURN:.....	176
ON LIVING WELL WITHIN A FRAGMENTED CULTURE:.....	177
ON THE TRANSCIENCE OF PHILOSOPHICAL DICHOTOMIES:	179
ON THE NECESSITY OF ACTION:.....	180
ON THE INTERRELATIONSHIP OF THE MAJOR FORMS OF THE PERENNIAL PHILOSOPHY:.....	181
ON CHIVALRY:.....	182
ON THE NATURE OF CONSCIOUSNESS:.....	183
ON THE NEED FOR A PHILOSOPHICAL RENAISSANCE:.....	187
ON THE END OF “RELIGION”:	188
ON THE INSUFFICIENCY OF MATERIALISM:.....	193
ON THE LAST MAN:.....	199
EPILOGUE:.....	202
REFERENCES:	205

PREFACE

It's acknowledged by philosophers that there is a single great idea common to all of the major religions. It was therefore characterised as “the perennial philosophy” by the well-known German philosopher and mathematician of the 17th century, Gottfried Leibniz. There is little that is wholly original in this gathering of sources that explore this idea, and yet it is a new offering of what I believe is a profound ancient insight, updated for the needs of our time.

All ideologies, including religions, tend to attract an element of inanity, if not insanity, and this follows very much in direct relation to their level of dependence on dogma. It is hoped that in most cases the excerpts used in this anthology represent the “gold,” the core essence, from which the “waste” has been separated, although a vast treasury has necessarily been left behind. Here the reader must necessarily follow up with his or her own enquiry.

On the other hand, there is a limitation to the value of quotation alone. The Roman Stoic philosopher and statesman Seneca, urges that we strive to go much further:

...That is why I look on people like this as a spiritless lot - the people who are always acting as interpreters and never as creators, always lurking under someone else's shadow. They never venture to do for themselves the things they have spent such a long time learning. They exercise their memories on things that are not their own. It is one thing, however, to remember, another to know... Let's have some difference between you and the books! How much longer are you going to be a pupil? From now on do some teaching as well...

...A man who follows someone else not only does not find anything, he is not even looking.

“But surely you are going to walk in your predecessor's footsteps?”

Yes indeed, I shall use the old road, but if I find a shorter and easier one, I shall open it up. [Those] who pioneered the old routes are leaders, not our masters. Truth lies open to everyone. There has yet to be a monopoly of Truth. And there is plenty left for future generations too...

It is in this context that I offer this outcome of a long journey in search of a philosophy of Life. The underlying thesis is that Reality is necessarily vast, unbounded, *and ultimately unknowable* by a finite mind, but on the other hand, a thinking person should continually strive to improve the limited understanding which *may* be arrived at. In doing so, he or she must necessarily employ the contributions of those who have gone before, but always critically examine them and endeavour to go further. As Socrates stated at his trial:

“The unexamined life is not worth living.”

INTRODUCTION

The converging paths of religion, science, and Eastern and Western philosophy have implications for the way we live, both individually and communally. The relationships between these fields of human experience are currently undergoing radical change, certainly as profound and fundamental as that brought about by the Copernican scientific revolution that occurred at the time of the Renaissance. Several factors are driving the changes, including -

- The unprecedented upsurge in communication between thinkers in the East and the West
- The crises in our cultural, international, religious and environmental relationships
- Radical developments in our understanding of the nature of the physical universe.

Our senses have developed in order to provide us the information we need for survival; they do not come with any guarantee of allowing us to perceive ultimate Reality. In contemporary science, the single-most revolutionary philosophical view that has emerged is that there is what the philosopher and mathematician Alfred North Whitehead termed a 'connexity' between all things. It appears that nothing acts in isolation from its environment. Science is increasingly seeing the Universe in terms of an organic Whole. In general, our "commonsense" view of reality is demonstrably inadequate. In the well-known words of Niels Bohr:

...Anyone who is not shocked by quantum theory has not understood it...

Another physicist questions the validity of our common sense:

...The German physicist Otto Frisch... describes the classical picture [of reality] as follows:

It takes the line that there is definitely an outside world consisting of particles which have location, size, hardness and so on. It is a little more doubtful whether they have colour and smell; still, they are bona fide particles which exist there whether or not we observe them.

We might call this classical philosophy "naive realism."

In quantum physics this simplistic classical relationship between the whole and its parts is totally inadequate... The quantum factor forces us to perceive particles only in relation to the whole. In this respect it is wrong to regard the elementary particles of matter as things that collectively assemble to form bigger things. Instead, the world is more accurately described as a network of relations.

To the naive realist the Universe is a collection of objects. To the quantum physicist it is an inseparable web of vibrating energy patterns in which no component has reality independently of the entirety; and included in the entirety is the observer.

The American physicist H.P.Stapp has expressed the quantum concept of [the] particle in these words:

"An elementary particle is not an independently existing unanalysable entity. It is, in essence, a set of relationships that reach outward to other things."

One is reminded of the words of William Blake: "To see a world in a grain of sand..." We must envisage all matter and energy everywhere encompassed in a unified existence...

(Superforce) (57)

As this scientific evolution occurs, concepts of the great religions of the East such as Buddhism, Taoism and Hinduism have begun to interpenetrate with those of Christianity, and Christianity itself is discovering that it shared these concepts explicitly during at least the first three centuries of its existence, and in a more limited and "vague" way since. The religious developments are causing re-evaluations of basic doctrines that seem to be in harmony with the present state of scientific knowledge. Within this context, it would appear that our "common-sense" concept of human beings as discrete entities, disconnected from and independent of the rest of Nature is appropriate only at a very superficial level.

This concept was shared by disparate persons such as the great scientist Newton and the writer Goethe. Both regarded all religions as being relics of an archetypal, or in Goethe's terms an *Ur*, religion, which had sprung from prehistoric times. The views of the leading theoretical physicists, the great philosophers and the proponents of systems theory are in substantial accord with those inherent within the core of this tradition.

Some concepts of the paradigm which will be considered are the Absolute, Holism, Mysticism, Monism, Panentheism (embracing both Pantheism and Panpsychism), Dharma (or Rta or Areté), and quantum theory, within the context of the perennial philosophy. Associated with these are secondary terms such as Logos, Nous and Universal Mind. At this point, it is appropriate to try to define some of these terms:

The *Absolute* in the philosophical vernacular has the following characteristics:

It is All embracing. The Absolute is the ultimate whole

It is not a simple totality of parts, but every part is of necessity interwoven with every other

Only the Absolute is fully real. All of its constituent parts have a reality that is a "reflection" of the ultimate Reality

It is timeless or eternal. All time is included within it

It is often conceived of as a conscious Whole or Mind.

Encyclopedia Britannica

One more characteristic which is arguably critical is that the Absolute is necessarily beyond good and evil.

The One of the Pythagoreans and Platonists, *Nirguna Brahman* of Indian philosophy, and *The Source* of Taoism and Confucianism are each defined broadly in accordance with this idea of the Absolute. (The terms "God" and "the Absolute" will often be used interchangeably in this work, although strictly speaking, this is only a half-truth. The common concept of a God which has attributes and personality, and acts in time would not be in accord with that of the philosophical concept of the Absolute).

Mysticism is an awareness of the fundamental unity of all things. The problem with this definition, however, is that the concept has been so central and recurrent in Western philosophy from its genesis with Pythagoras that, as the Encyclopedia Britannica has wryly expressed it:

...in this case it might be difficult to find a systematic philosopher who escaped the charge of mysticism...

The term 'mysticism' is somewhat inappropriate, as it evokes the notion of a mysterious concept, whereas in fact it is grounded very firmly in logic. The 'mystery' arose from the fact that it was the core philosophy of groups such as the Pythagoreans, and had necessarily to be kept secret because of the religious persecutions of the time. Unfortunately, it has also become endowed with the secondary and quite distinct meaning, now associated with the occult. *This is not the sense in which I utilize it in this work.*

Philosophical mysticism is experienced both intellectually, in the idea of the essential identity of the "One" (the Absolute), and the "Many" (human beings, animals, plants and all material things), and intuitively, as the endeavour of the individual to experience communion with the Absolute. It has been central to all of the great religions. In the Western context it has been a primary theme within the thought of many notable intellects, including Socrates, Plato, Plotinus, Eckhart, St. Teresa, St. John of the Cross, Spinoza, Kant, Hegel, and Gödel. Where the term mysticism is used from this point on, it is in the sense of this philosophical mysticism.

The word *Pantheism* comes from the Greek "Pan," (all) and "Theos," (God). It was first used by John Toland, who gave Pantheism its basic tenets: "*All things in the world are One. What's All in all things is God.*" A subtle variation of this is *Panentheism*, meaning literally "All in God"; that is, all that can be known is held to be a manifestation of God, but God is also transcendent, extending beyond the reality that can be experienced. The Roman writer Virgil, who in the latter part of his life was to become a Stoic,

expressed the pantheistic concept poetically:

...Some have said that bees possess a share of the divine Mind, and draw the breath of Heaven, that the Deity moves through all lands and open spaces of the sea, and deep of Heaven; that hence flocks, herds, men, every kind of wild beast, each one at birth, derive the delicate spirit of life; and so, in course, all things are restored to this fountain, and thither return again by dissolution; and there is no room for death, but each flies up into the place of a star, and climbs the height of Heaven...

(*Georgics* iv 220)

Stoicism, Mahayana Buddhism, Hinduism, early Christianity and Taoism each have a considerable pantheistic or panentheistic component. Johannes Scotus Erigena, Meister Eckhart, Nicolaus Cusanus, St. Francis of Assisi and Pierre Teilhard de Chardin were pantheistic within a largely Christian framework; Giordano Bruno, Baruch Spinoza, Isaac Newton, Wolfgang von Goethe, Albert Einstein and Alfred North Whitehead, among others, expressed their pantheism within a broader context.

Panpsychism is the concept that mind or consciousness is an essence that encompasses the whole Universe.

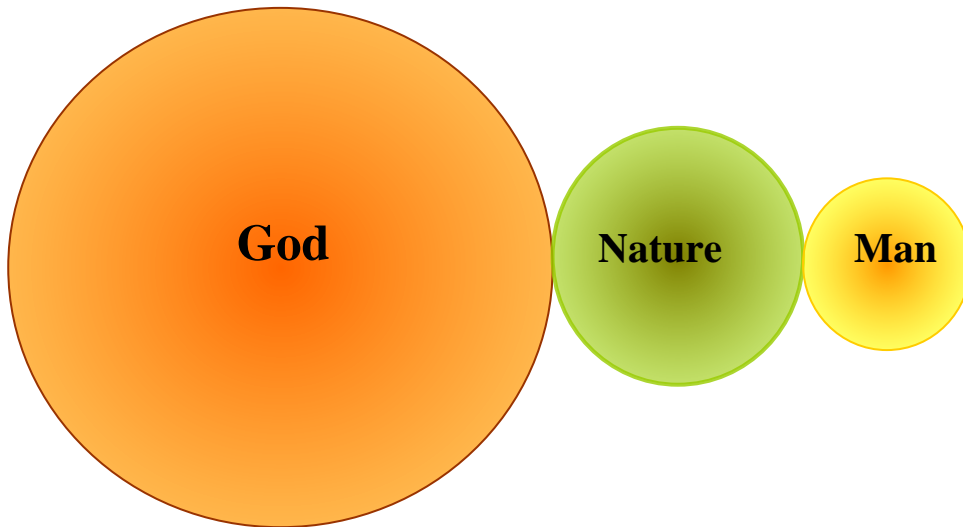
Monism, from the Greek word “monos” (single), is a philosophical view that holds that there is fundamentally only one kind of ultimate substance or “Ground of Being”; hence Monism is closely associated with philosophical Mysticism and Pantheism.

The term *Holism* involves a consideration of Nature and reality in terms of integrated wholes, which are necessarily greater than the sum of their parts. From the same basic root word, we have concepts such as “holy” and “healthy”. The concept of the Absolute is the ultimate affirmation of holism.

The related words *Rta* (ancient Sanskrit) and *areté* (classical Greek) are terms held to relate to the lower nature of the divine principle. (*Dharma*, a related word, was interchangeable in some contexts with *Rta* in Sanskrit writings). The classical Greeks and Indians held it to be the fundamental essence that must be discovered within each individual being to give purpose to life. *Rta* means, literally, *universal order*, and can be manifested on either a cosmic or human scale.

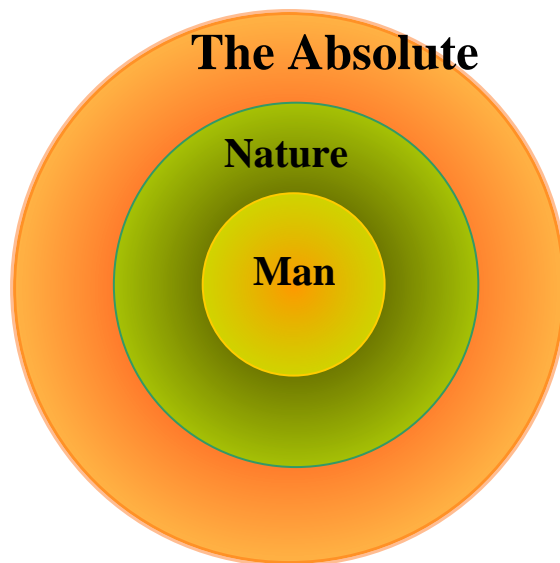
While Monism, Holism, Mysticism and Pantheism are not identical, they are closely interrelated. The Pantheist rejects the concept of the transcendent and anthropomorphic God, and much like the mystic, identifies him- or herself and the entire Universe as a manifestation of the Absolute, the Ground of all being.

The orthodox theistic picture of reality is that of a transcendent God totally divorced from Man and Nature. This model, which has been conventional wisdom in the West for the last fifteen hundred years, might be represented as:



This is certainly not in accordance with early Christian teaching; yet it is the world-view of many contemporary Christians.

The corresponding representation of the perennial philosophy would be:



Within the context of the perennial philosophy, there can be no fundamental differentiation between human and animal, and indeed human and plant, where one possesses a soul and the other is merely an automaton or commodity. The distinction is only one of degree, and humanity is more connected to the Absolute in some aspects, less so in others. The perennial philosophy sets Man's relationship with Nature in a new light.

There is a view amongst some people that Mankind must apparently pass through what the German philosopher of history Karl Jaspers termed an "Axial Period," a period of profound philosophical and ethical reassessment of our place in the Cosmos. In this era of the so-called "Global Village," an era that is

unprecedented in terms of both creative and destructive potential, a radical rethink of all collective and individual values and aspirations is necessary for not only the welfare, but indeed also the *very survival* of the human race. One of the principal theses of this book is that the Ur religion is the framework within which this process must take place. The purpose of this work is to put forward this case, and to show that it is much more than just plausible. As Baruch Spinoza expresses it in his typically laconic way:

...The chief good is that [one] should arrive, together with other individuals if possible, at the... knowledge of the union existing between the mind and the whole of Nature. This, then, is the end for which I strive: to attain to such [knowledge] myself, and to endeavour that many should attain it with me...

(On The Improvement of the Understanding) (17)

THE ANTHOLOGY

This anthology consists of condensed fragments of writings from or about the perennial philosophy, and the list is by no means exhaustive. It has to be emphasized that no more than the briefest of introductions to each of these concepts is possible within the limitations of a single book. In this respect, the objective can only be to encourage the reader to explore them more fully for her- or himself.

ANCIENT EGYPT:

The religions of ancient Egypt and Babylon were monistic. Although nominally polytheistic, in both cultures all of the gods and in fact, all things, were identified as manifestations of an Ultimate Being:

...The heavens... were to the Mesopotamians the very majesty of the godhead, the highest ruler, Anu. To the Egyptians the heavens signified the mystery of the divine Mother through whom man was reborn. In Egypt and Mesopotamia, the divine was comprehended as immanent; the gods were in Nature... In the significant moments of his life, early man was confronted not by an inanimate impersonal Nature – not by an ‘It’ – but by a ‘Thou.’ We have seen that such a relationship involved not only man’s intellect but the whole of his being – his feeling and his will, no less than his thought. Hence early Man would have rejected the detachment of a purely intellectual attitude towards Nature, had he been able conceive it, as inadequate to his experience...

(Before Philosophy) (116)

There is a strong argument that the religion of the Pharaoh Akhenaton (ca. 1300 B.C.E.) was in broad agreement with this concept of Nature:

...Akhenaton’s Sun-god, Aton, was conceived of as much more than just the material Sun; the light and heat of the Sun was deified as the source of all life... Light or heat plays an integral role in the religion, just as it did later with the Stoic philosophy...

...His hymns are the earliest known expressions of deep emotion in the recognition of divine goodness and benevolence. Mingled with it is an almost ecstatic rapture in the thought of the all-enveloping light in which he saw revealed both the beauty and goodness of the natural order. It reminds us of him who bade us “consider the lilies.” The picture of the lily-grown marshes, where, as one hymn tells us, the flowers are “drunken” in the intoxicating radiance of Aton, where the birds unfold their wings and lift them “in adoration of the living Aton,” where cattle dance with delight in the sunshine, and the fish in the river beyond leap up to greet the light... whose beams are even “in the midst of the great green sea” - all this discloses a discernment of the presence of God in Nature, and an appreciation of the revelation of God in the visible world such as we find centuries later in the Hebrew psalms, and particularly in... poets [such as] Wordsworth...

(Encyclopedia Britannica) (10)

Two of the surviving hymns of the time exhibit some of the writer’s feeling of the brotherhood of Man and a reverence for Nature:

THE WHOLE CREATION

*How manifold are thy works!
They are hidden from before us,
O sole God, whose powers no other possesseth.
Thou didst create the Earth according to thy heart
While thou wast alone:
Men, all cattle, large and small,
All that are upon the Earth,
That go about upon their feet;
All that are on high,
That fly with their wings.*

*The foreign countries, Syria and Kush,
The land of Egypt,
Thou settest every man into his place,
Thou suppliest their necessities.
Every one has his possessions,
And his days are reckoned.
The tongues are diverse in speech,
Their forms likewise and their skins are distinguished.
For thou makest different the strangers.*

DAY AND THE ANIMALS AND PLANTS

*All cattle rest upon their pasturage,
The trees and the plants flourish,
The birds flutter in their marshes,
Their wings uplifted in adoration to thee.
All the sheep dance upon their feet,
All winged things fly,
They live where thou hast shone upon them.*

(Encyclopedia Britannica) (10)

Though this imagery is romantic, it should be borne in mind that the ancient Egyptians were equally familiar with the lion and crocodile as with the lamb, and that Egypt was the “superpower” of the ancient world. The veneration of the natural order in the World and the fellowship of Man are all the more meaningful within that context.

THE HERMETIC TRADITION:

Another ancient Egyptian development, the Hermetic Tradition had a profound but often underrated influence on Western thought. The Hermetic concept of the Absolute is very much in accord with others within the Indian, Greek and Chinese Philosophical traditions. The founder, who the ancient Greeks named Hermes, probably lived in Egypt around 800 B.C.E:

...To conceive of Atum is difficult. To define him is impossible. The imperfect and impermanent cannot easily apprehend the eternally perfected. Atum is whole and constant. In himself he is motionless, yet he is self-moving. He is immaculate, incorruptible and ever-lasting. He is the Supreme Absolute Reality. He is filled with ideas which are imperceptible to the senses, and with all-embracing Knowledge. Atum is Primal Mind...

...Atum is the Whole which contains everything. He is One, not two. He is All, not many. The All is not many separate things, but the Oneness that subsumes the parts. The All and the One are identical...

...Atum is called “Father” because he begets all things, and, from his example, the wise hold begetting children the most sacred pursuit of human life...

(The Hermetica) (87)

It is arguable that much of the scientific and philosophical foundation of ancient Greece and Rome and hence of the Renaissance was associated with the study of this or closely related Traditions. Frances Yates in “Giordano Bruno and the Hermetic Tradition” writes:

...[the] religion of the world which runs as an undercurrent in much of Greek thought, particularly in Platonism and Stoicism, [became] in Hermeticism actually a religion, a cult without temples or liturgy, followed in the mind alone, a religious philosophy or philosophical religion containing a gnosis...

TAOISM:

Lao Tzu is reputed to have founded Taoist philosophy around the 5th century B.C.E. Taoists believe that there is an ultimate Reality that underlies and unifies the multiplicity of things in the Universe:

Do not ask whether the Principle is in this or in that; it is in all beings. It is on this account that we apply to it the epithets of supreme, universal, total... It has ordained that all things should be limited, but is Itself unlimited, infinite. As to what pertains to manifestation, the Principle causes the succession of its phases, but is not this succession. It is the author of causes and effects, but is not the causes and effects. It is the author of condensations and dissipations (birth and death, changes of state), but is not itself condensations and dissipations. All proceeds from It and is under its influence. It is in all things, but is not identical with beings, for It is neither differentiated nor limited...

Thus, the “Principle” includes all things, but is itself beyond time. This is in harmony with the philosophical concept of the Absolute:

...There are three terms - “complete”, “all-embracing,” “the whole.” These names are different, but the reality sought in them is the same: referring to the One thing.

(Chuang Tzu)

From this Reality, “*The Source*,” originates the *Tao*. The *Tao* corresponds broadly to the *Nous* of Platonism, the Vedic *Rta* and the Buddhist Dharmakāya, and Chinese Christians identify It with the Christian concept of *the Logos*. Each of these is an emanation of the Absolute, and represents the primal aspect of the Absolute that acts in time. The literal meaning of the name *Tao* is “The Way”. In this sense, it is the way or cosmic process of the Universe in which all things participate, the central order of Nature:

The Tao which can be expressed in words is not the eternal Tao; the name which can be uttered is not the eternal name. Without a name, it is the Beginning of Heaven and Earth; with a name, it is the Mother of all things. Only one who is ever free of personal desire can apprehend its spiritual essence; he who is ever a slave to personal desire can see no more than its outer fringe. These two things, the spiritual and the material, though we call them by different names, in their origin they are one and the same. This sameness is a mystery - the Mystery of Mysteries. It is the gate of all wonders...

(Lao Tzu)

Taoism sees Reality as a continuous flux of change. All things in Nature, including human society, have cyclic patterns of growth and decay:

*Attain the highest openness;
Maintain the deepest harmony.
Become a part of All Things;
In this way I perceive the cycles.*

*Indeed, things are numerous;
But each cycle merges with the Source.
Merging with the Source is called harmonising;
This is known as the cycle of destiny.*

*The cycle of destiny is called the Absolute;
Knowing the Absolute is called insight
To not know the Absolute
Is to recklessly become a part of misfortune.*

*To know the Absolute is to be tolerant.
What is tolerant becomes impartial;
What is impartial becomes powerful;*

*What is powerful becomes natural;
What is natural becomes Tao.*

*What has Tao becomes everlasting
And free from harm throughout life.*

(Lao Tzu)

The latter two lines imply that when identification with the Absolute is achieved, the personal ego is transcended, and realisation of the higher Self leads to a transcendence of the shallower aspects of everyday life. The Taoists were not “other worldly” however; they recognised the validity of everyday reality, while seeing the greater Reality beyond. Thus one of the principal tenets of the philosophy was the belief in the need to “go with the grain” or act in accordance with *Li*, the principle of Nature:

...Nature is not only spontaneity but Nature in the state of constant flux and incessant transformation. This is the universal process that binds all things into one, equalising all things and opinions. The pure man makes this oneness his eternal abode, in which he becomes a “companion” of Nature and does not attempt to interfere with it by imposing the way of Man on it. His goal is absolute spiritual emancipation and peace, to be achieved through knowing the capacity and limitations of one's own nature, nourishing it, and adapting it to the universal process of transformation. He abandons selfishness of all descriptions, be it fame, wealth, bias, or subjectivity. Having attained enlightenment through the light of Nature, he moves in the realm of “great knowledge” and “profound virtue.” Thus he is free. As the Chuang Tzu itself says of him, “Alone he associates with Heaven and Earth and spirit, without abandoning and despising things of the world. He does not quarrel over right or wrong, and mingles with conventional society... Above, he roams with the Creator, and below he makes friends with those who transcend life and death and beginning and end. In regard to the essential, he is broad and comprehensive, profound and unrestrained. In regard to the fundamental, he may be said to have harmonised all things and penetrated the highest level”...

(A Sourcebook in Chinese Philosophy) (78)

HERACLITUS:

The philosopher Heraclitus lived at Ephesus in Asia Minor about 500 B.C.E., roughly contemporaneously with Lao Tzu, and during the epoch labeled by the philosopher Karl Jaspers as the “Axial Period,” a time when all of the great religions had their genesis (this presumes a common origin for the Judaeo/Christian/Islamic tradition). The Stoics regarded Heraclitus as being one of their precursors, and his ideas have a considerable amount in common with Taoism. Heraclitus’ *Logos* can be characterised in brief as *Universal Mind*:

...The idea of Logos acquires its first importance in the theories of Heraclitus... who, trying to account for the aesthetic order of the visible Universe, broke away to some extent from the purely physical conceptions of his predecessors and discerned at work in the cosmic process a Logos analogous to the reasoning power in man...

...This Logos is not one above the world and prior to it, but in the world and inseparable from it. Man's soul is a part of it... Like a law of Nature, objective in the world, it gives order and regularity to the movement of things and makes the system rational...

(Encyclopedia Britannica) (10)

Only fragmentary records of Heraclitus' writings remain; in these, there are concepts that are in accord with the perennial philosophy. He conceived the *Logos* as process and dialectic, a continuous conflict of opposites; all things are constantly undergoing change, and he saw this as the fundamental principle of the Universe:

- “The one and only Wisdom is both willing and unwilling to be called God.”

Absolutely; it all depends on one’s definition of “God,” as mentioned in the introduction.

- “*God is Day and Night, Winter and Summer, War and Peace, Satiety and Hunger.*”

This is the conflict of opposites... and again:

- “*It is what opposes that helps.*”

Or Life is the constant process of overcoming of obstacles, and as we overcome, we can learn:

- “*All things are produced through strife.*”
- “*Things taken together are whole and not whole, something which is being brought together and brought apart, which is in harmony and in discord. Out of all things comes a unity, and out of a unity all things.*”
- “*Wisdom consists of one thing - to know what steers all through All.*”
- “*As a child to the man, man to the Logos.*”
- “*Be not deceived! It is the fault of your limited outlook and not the fault of the essence of things if you believe that you see firm land anywhere in the ocean of Becoming and Passing. You need names for things, just as if they had a rigid permanence, but the very river in which you bathe a second time is no longer the same one which you entered before*”

Thus as we will see later with the Platonists, Heraclitus' reality was a unity-in-diversity, a creative tension between the “One” and the “Many”. He saw struggle as an inevitable part of the overall scheme of the conflict of opposites within the realm of the Many. The One was the “matrix” within which this whole saga took place. He saw Reality not so much as a collection of “things,” but more as a system of self-organising “forces” which are continuously interacting. In the words of one of Heraclitus’ greatest admirers:

...We are the happy living beings, not as individuals, but as the one living being, with whose creative joy we are united...

(Nietzsche – *The Birth of Tragedy*) (96)

INDIAN PHILOSOPHY:

The fundamental principle common within the grouping of philosophies generally known as Hinduism is the idea that the multitude of things and events around us are merely different manifestations of the one ultimate Reality. This Reality, called *Nirguna Brahman*, is the unifying principle that makes the mainstream of Hinduism essentially monistic, despite the worship of what is apparently a large number of gods and goddesses. Hindus regard all of the gods merely as different *aspects* of the supreme, attributeless Godhead (a concept akin to that of the Trinity of orthodox Christianity, but of course on a much larger scale).

Brahman is held to be the inner essence of all things; hence much of Indian philosophy could be described as being panentheistic. The manifestation of Brahman at the personal level is called *Atman*, and the idea that Atman and Brahman, the individual and the ultimate Reality, are one, is the basis of the Upanishads, the principal philosophical Scriptures of India:

The Self is one. Unmoving, it moves faster than the mind. The senses lag, but Self runs ahead. Unmoving, it outruns pursuit. Out of Self comes the breath that is the life of all things.

Unmoving, it moves; it is far away, yet near; within all, outside all.

The Self is everywhere, without a body, without a shape, whole, pure, wise, all-knowing, far shining, self-depending, all transcending; in the eternal procession assigning to everything its proper duty...

(*Isha-Upanishad*) (49)

My son! There is nothing in this world that is not God. He is action, purity; everlasting Spirit. Find him in the cavern; gnaw the knot of ignorance.

Shining, yet hidden, Spirit lives in the cavern. Everything that sways, breathes, opens, closes, lives

in Spirit; beyond learning, beyond everything, better than anything; living, unliving.

It is the undying blazing Spirit, that seed of all seeds, wherein lay hidden the world and all its creatures. It is life, speech, mind, reality, immortality.

In a beautiful golden scabbard hides the stainless, indivisible, luminous Spirit.

Neither Sun, Moon, star, neither fire nor lightning, lights Him. When He shines, everything begins to shine. Everything in the world reflects His light.

Spirit is everywhere, upon the right, upon the left, above, below, behind, in front. What is the world but Spirit?

Two birds, bound to one another in friendship, have made their homes on the same tree. One stares about him, one pecks at the sweet fruit.

The personal self, weary of pecking here and there, sinks into dejection; but when he understands through meditation that the other - the impersonal Self - is indeed Spirit, dejection disappears.

He who has found Spirit, is Spirit.

(Mundaka-Upanishad) (49)

The Upanishads tended to emphasise the fundamental unity of the World, but later Indian philosophy was to moderate this with an ethic for the conduct of life within the realm of the Many. Thus, in addition to its well-known use of contemplation, the need for selfless action or work as a pathway to Reality is emphasised:

*In the beginning
The Lord of beings
Created all men
To each his duty.
"Do this," He said
"And you shall prosper.
Duty well done
Fulfills desire."*

*

*The ignorant work
For the fruit of their action:
The wise must work also
Without desire
Pointing man's feet
To the path of his duty.*

*

*Let the wise beware
Lest they bewilder
The minds of the ignorant
Hungry for action:
Let them show by example
How work is holy
When the heart of the worker
Is fixed on the Highest...*

(The Bhagavad Gita) (49)

BUDDHISM:

According to the Buddhist tradition, Siddhartha Gautama achieved enlightenment after years of self-denial in the wilderness. In deep contemplation, he came to experience the transcendence of the everyday reality

of the “analytical” mind, to reach a state where reality becomes a unified Whole, an intuitive awareness of oneness with the Absolute. In Buddhism, this state has been termed “*Suchness*.” In a later development, Buddhism merged with Taoism in the branch of the religion known as Zen (or Ch'an in the country of its genesis, China).

Buddhism has sects and levels of understanding that are at least as many and varied as those of Christianity, but a fundamental manifesto of Buddhism has been agreed between most branches of the Buddhist movement. The following is a paraphrasing of this, as expressed in Christmas Humphreys' book *Buddhism*:

Buddhism is not escapist, and does not deny the existence of God or soul, though it places its own meaning on these terms. It is a system of thought, a religion and a way of life which is practical and All-embracing. For over two thousand years in its varied forms it has satisfied the spiritual needs of nearly one-third of Mankind. It has no dogmas, and demands rigorous examination by the individual of all aspects of the teaching. It satisfies the reason and the heart alike, insists on self-reliance coupled with compassion, embraces science, religion, philosophy, ethics and art, and points to the individual as ultimately the creator of his own destiny. The utmost openness and tolerance should be practiced by the Buddhist towards other religions and philosophies, for no one has the right to interfere in his neighbour's journey to the Goal.

Reality is taught to be One and indivisible, though its ever-changing forms are innumerable and transient. There is, in the ultimate, no death, though every form must pass away. Thus a fundamental concept of the Buddhist philosophy is that the separate individual self is an illusion; to cling to the concept only leads to frustration and confusion. From an understanding of the Unity arises compassion through a sense of identity with all life. Compassion is described as the Law of laws - eternal harmony, and he who breaks this harmony of life will only delay his own Enlightenment.

It follows that human suffering comes from our difficulty in facing the basic fact of existence, that everything in our life is constantly changing:

...All things arise and pass away...

...Life is a bridge; therefore build no house on it...

Life is a process of flow, and he who clings to any form, however splendid, will suffer by resisting the flow. The concept that flow and change are basic features of reality, lies at the core of Buddhism. Suffering arises, in the Buddhist view, when we resist the flow of life and try to cling to external things.

Reality being One, the interests of the part should be those of the Whole. In his ignorance, the individual thinks he can successfully strive for his own interests, and this wrongly-directed energy of selfishness produces suffering. He learns from his suffering to reduce and finally eliminate its cause. Thus the Buddha taught the Four Noble Truths:

The omnipresence of suffering

Its cause, wrongly-directed desire

Its cure, the removal of the cause

The Noble Eightfold Path of self-development which leads to the end of suffering.

The Eightfold Path lies in

Right Views or preliminary understanding;

Right Aims or Motives;

Right Speech, plain and truthful;

Right Acts, including abstinence from taking life, either human or animal;

Right Livelihood, harming no one;

Right Effort, always pressing on;

Right Concentration; and finally

Right “Samadhi” or Consciousness, leading to full Enlightenment.

As Buddhism is a way of living, not merely a theory of life, the treading of this Path is essential for self-liberation.

Self-liberation or Enlightenment is for any individual the primary task of life. But just as a pedestrian lying injured on the road would not delay medical help by demanding full details of the make and type of car which struck him, so Ultimate Truth is recognised as being unknowable, although an increasing understanding may be attained by the treading of the Way. In the meantime, it is necessary to begin by facing life, as it is, learning always from direct and personal experience.

As mentioned, the first fact of existence is the law of change or impermanence. All that exists, from a molehill to a mountain, from a thought to an empire, passes through the same cycle of existence - birth, growth, decay, and death. Life alone is continuous, forever seeking expression in new forms. This law of change applies equally to the "soul." There is no principle in an individual that is immortal and unchanging. Only the Namelessness, the Ultimate Reality, is beyond change. All forms are manifestations of this Ultimate Reality.

The Universe is the expression of Law, or Dharma. All effects have causes, and a person's soul or character is the sum total of his previous thoughts and acts. Karma, meaning action-reaction, governs all existence, and each person is the sole creator of his circumstances and his reaction to them, his future condition, and his final destiny. By right thought and action he can gradually purify his inner nature, and so by self-realisation attain eventual liberation.

From potential to actual Enlightenment there lies the Middle Way, the Eightfold Path from desire to peace, a path of self-development between the opposites, and avoiding extremes of all kinds.

Buddhism places great importance on the need for inward concentration and meditation, which leads in time to development of the inner spiritual faculties. The inner life is as important as the outer, and periods of serenity for inner activity are essential for a balanced life.

The Buddha said: "Work out your own salvation with diligence." Each person is held to suffer the consequences of his own acts, and learn thereby, while helping his fellow men to the same deliverance. Neither prayer to the Buddha nor God will stop an effect from following its cause. Thus a Buddhist monk is a teacher and exemplar, and in no sense an intermediary between Reality and the individual. Buddhism acknowledges no authority for Truth except the intuition of the individual, and that is authority for himself alone.

Reality is infinite and beyond words, and a God with attributes is not the final Reality. The Buddha, a human being, became Enlightened, and the purpose of life is held to be the attainment of Enlightenment. This state of Consciousness is called Nirvana, the extinction of the limitations of selfhood. In Nirvana the individual self loses its identity "as the dewdrop slips into the shining sea," by merging with the Absolute, the true Self. All individual forms of life contain the potentiality of Enlightenment, and the process therefore consists in becoming what you are:

"Look within; thou art Buddha."

Most of this is splendid. Buddhism, when it emphasises the need for the individual search for transcendence and enlightenment, is at its finest.

The following extract from a poem by the third Patriarch of Zen splendidly expresses the essence of Buddhist mystical thought:

...In the higher realms of true Suchness

There is neither self nor other:

When direct identification is sought,

We can only say "not two".

In being "not two", all is the same,

All that is is comprehended in it;

The wise in the ten quarters,

They all enter into this Absolute Reason.

This Absolute Reason is beyond time and space,

*For it, one instant is ten thousand years;
Whether we see it or not,
It is manifest everywhere in all the ten quarters...*

*...One in All
All in One -
If only this were realised,
No more worry about your not being perfect.*

*When Mind and each believing mind are not divided,
And undivided are each believing mind and Mind,
This is where words fail;
For it is not of the past, present, and future.*

(*Mysticism*; F.C.Happold) (49)

This intuitive view is in accord with the world-view emerging from quantum physics.

CONFUCIANISM:

Many of the concepts of Confucianism are in harmony with Taoism, but greater emphasis is placed on their application to everyday life, and establishing guidelines for our dealings with each other:

*...It was Confucius who turned [humanism] into the strongest driving force in Chinese philosophy. He did not care to talk about spiritual things or even about life after death. Instead, believing that Man “can make the Tao great,” and not that “the Tao can make man great,” he concentrated on Man. His primary concern was a good society based on good government and harmonious human relations. To this end he advocated a... government that rules by virtue and moral example rather than punishment or force. His criterion for goodness was righteousness as opposed to profit. For the family, he particularly stressed filial piety and for society in general, proper conduct or **Li**...*

*...More specifically, he believed in the perfectibility of all men, and in this connection he radically modified a traditional concept, that of the **Chün-tzu**, or “superior man,” ... [To Confucius, nobility was not] a matter of blood but of character – a concept that amounted to social revolution...*

*...Not only did Confucius give Chinese philosophy its humanistic foundation, but he also formulated some of its fundamental concepts, five of which will be briefly commented on here: the rectification of names, the Mean, the Way, Heaven, and jen (humanity). In insisting on the rectification of names, Confucius was advocating not only the establishment of a social order in which names and ranks are properly regulated, but also the correspondence of words and action, or in its more philosophical aspect, the correspondence of name and actuality... By the Mean, Confucius did not have in mind merely moderation, but that which is central and balanced... In his interpretation of Heaven, he departed from traditional belief even more radically. Up to the time of Confucius, the Supreme Power was called Ti (the Lord) or Shang-ti (the Lord on High) and was understood in an anthropomorphic sense. Confucius never spoke of Ti. Instead he spoke of **T'ien** (Heaven). To be sure, his Heaven is purposive and is the master of all things. He repeatedly referred to the **T'ien-ming**, the Mandate, will or order of Heaven. However, with him Heaven is no longer the greatest of all spiritual beings who rules in a personal manner but a Supreme Being who only reigns, leaving his moral law to operate by itself. This is the Way according to which civilization should develop and men should behave. It is the Way of Heaven (**T'ien-tao**), later called the Principle of Heaven or Nature (**T'ien-li**).*

*Most important of all, he evolved the new concept of **jen** which was to become central in Chinese philosophy... No other subject, not even filial piety, engaged so much the attention of the Master and his disciples... to Confucius the man of jen is the perfect man. He is the true chün-tzu. He is a man of the golden rule, for, “wishing to establish his own character, he also establishes the character of*

others, and wishing to be prominent himself, he also helps others to become prominent.” In these balanced and harmonized aspects of the self and society, jen is expressed in terms of chung and shu, or conscientiousness and altruism, which is the “one thread” running through Confucius’ teachings, and which is in essence the golden mean as well as the golden rule. It was the extension of this idea of jen that became the Neo-Confucian doctrine of man’s forming one body with Heaven, or the unity of man and Nature...

(A Sourcebook in Chinese Philosophy (78)

Confucianism has arguably developed more into a system of ethics than religion. Some of the principal characteristics of the ethic include:

- *A spiritual concern for the forms and functions of the social group. It stresses the duty of each individual towards the group, whether the family, the local community, or the nation. This is effectively embedded in the Chinese psyche through their language: everyone is *dajya*, literally “big family,” and the nation is *gwojya*, literally “country-family”*
- *A strong respect for education and learning. After more than two millennia, this remains a salient feature of East Asian culture*
- *A preference for government by virtue, rather than by law. Eastern societies still have an exceptionally low level of litigation relative to those of the West*
- *A reverence for antiquity. This contributes to a strong sense of stability and continuity of civilisation*
- *An acceptance of the diversity of spiritual and philosophical authority. Unlike Europe, China for millennia was able to tolerate the coexistence of many religions including Confucianism, Buddhism, Taoism, Christianity and Islam*
- *The promotion of the concepts of jen (humanity, righteousness, propriety, wisdom, and faithfulness in dealings with others) and li (ceremony and ritual, which they saw as the “lubricant” of social interaction).*

(The Confucian Renaissance)

Even within this context, the Confucian ethical system is nevertheless based on profound spiritual values:

...Only those who are their absolute true selves in the world can fulfill their own nature; only those who fulfill their own nature can fulfill the nature of others; only those who fulfill the nature of others can fulfill the nature of things; those who fulfill the nature of things are worthy to help Mother Nature in growing and sustaining life; and those who are worthy to help Mother Nature in growing and sustaining life are the equals of heaven and earth.

...Truth is not only the fulfillment of our own being; it is that by which things outside of us have an existence. The fulfillment of the nature of things outside of us is intellect. These, moral sense and intellect, are the powers or faculties of our being. They combine the inner or subjective and the outer or objective use of the power of the mind. Therefore, with truth, everything done is right.

Thus absolute truth is indestructible. Being indestructible, it is eternal. Being eternal, it is self-existent. Being self-existent, it is infinite. Being infinite, it is vast and deep. Being vast and deep, it is transcendental and intelligent. It is because it is vast and deep that it contains all existence. It is because it is transcendental and intelligent that it embraces all existence. It is because it is infinite and eternal that it fulfills or perfects all existence. In vastness and depth, it is like the Earth. In transcendental intelligence, it is like Heaven. Infinite and eternal, it is the Infinite itself...

...The principle in the course and operation of Nature may be summed up in one word: because it obeys only its own immutable law, the way in which it produces the variety of things is unfathomable.

Nature is vast, deep, high, intelligent, infinite and eternal. The heaven appearing before us is only this bright, shining mass; but in its immeasurable extent, the Sun, the Moon, stars and constellations are suspended in it, and all things are embraced under it. The Earth, appearing before us, is but a handful of soil; but in its breadth and depth, it sustains mighty mountains without feeling their weight; rivers and seas dash against it without causing it to leak. The mountain appearing before us

is only a mass of rock; but in all the vastness of its size, grass and vegetation grow upon it, birds and beasts dwell on it, and treasures of precious metals are found in it. The water appearing before us is but a ladleful of liquid; but in all its unfathomable depths, the largest crustaceans, dragons, fishes, and turtles are produced in them, and all useful products abound in them.

In the Book of Songs it is said:

*“The ordinance of [Tao],
How inscrutable it is and goes on forever” ...*

(Man and Man. The Social Philosophers) (113)

GREEK AND ROMAN RELIGION:

The Greeks and Romans were nominally polytheistic, but their concepts were far more subtle than is normally acknowledged by the followers of the Judæo-Christian tradition. The gods were *archetypes*, used by everyday people to try to comprehend aspects of the one unknowable Godhead:

...The fables of poetry were originally employed in representing the Divine Nature, according to the notion then conceived of it. This sublime subject occasioned the first poets to be called Divines, and Poetry the Language of the gods. They divided the Divine Attributes into many persons; because the infirmity of a human mind cannot sufficiently conceive, or explain, so much power and action in simplicity so great and indivisible as that of God. And, perhaps, they were also jealous of the advantage they reaped from such excellent and exalted learning, and of which they thought the greater part of mankind was not worthy.

They could not describe the operation of this Almighty Cause, without speaking at the same time of its effects: so that to Divinity, they added Physiology and treated of both without quitting the umbrages of their allegorical expressions.

But Man being the chief and the most noble of all that God produced, and nothing being so proper, or more useful to poets than this subject; they added it to the former, and treated of the doctrine of morality after the same manner as they did that of divinity and philosophy; and from morality thus treated, is formed that kind of poem which we call Epic.

The poets did the same in morality, that the divines had done in divinity. But that infinite variety of the actions and operations of the Divine Nature, (to which our understanding bears so small a proportion) did, as it were, force them upon dividing the single idea of the Only God into several persons, under the different names of Jupiter, Juno, Neptune, and the rest...

(Treatise of the Epick Poem: René Le Bossu)

PLATONISM:

In accord with the prevailing philosophy of his time, Plato was a mystic who held that all reality ultimately emanated from “the One.” He worked towards an understanding of the relationship of the individual self towards the universal Self.

In *Timæus*, he expressed a myth of Creation through the words of a fictional philosopher. According to the following account, the Universe was modeled on “*the One*,” and possessed soul and intelligence in its own right. Thus from the One proceeds *Nous*, or Universal Mind, and from *Nous* comes forth individual things (“the Many”), including ourselves:

...Let us therefore state the reason why the framer of this Universe of change framed it at all. He was Good, and what is good has no particle of envy in it; being therefore without envy he wished all things to be as like himself as possible. This is as valid a principle for the origin of the world of change as we shall discover from the wisdom of men, and we should accept it. God therefore, wishing that all things should be good, and as far as possible nothing be imperfect, and finding the visible Universe in a state not of rest but of inharmonious and disorderly motion, reduced it to order from disorder, as he judged that order was in every way better. It is impossible for the best to produce

anything but the highest. When he considered, therefore, that in all the realm of visible Nature, taking each thing as a whole, nothing without intelligence is to be found that is superior to anything with it, and that intelligence is impossible without a soul, in fashioning the Universe he implanted reason in soul and soul in body, and so ensured that his work should be by nature highest and best. And so the most likely account must say that this World came to be in very truth, through God's providence, a living Being with soul and intelligence.

On this basis we must proceed to the next question: What was the living Being in the likeness of which the Creator constructed it? We cannot suppose that it was any creature that is part of a larger whole, for nothing can be good that is modeled on something incomplete. So let us assume that it resembles as nearly as possible that of which all other beings individually and generically are parts, and which comprises in itself all intelligible beings, just as this world contains ourselves and all visible creatures. For God's purpose was to use as his model the highest and most completely perfect of intelligible things, and so he created a single visible living Being, containing within itself all living beings of the same natural order. Are we then right to speak of one Universe, or would it be more correct to speak of a plurality or infinity? ONE is right, if it was manufactured according to its pattern; for that which comprises all intelligible beings cannot have a double. There would have to be another Being comprising them both, of which both were parts, and it would be correct to call our world a copy not of them but of the Being which comprised them. In order therefore that our Universe should resemble the perfect living Creature in being unique, the maker did not make two universes or an infinite number, but our Universe was and is and will continue to be his only creation...

(*Timaeus*) (42)

In what is possibly his most famous work, *The Republic*, Plato outlined his thought-provoking allegory of the Cave, in which he introduces the thesis of two levels of reality. A lower, 'phenomenal' or visible realm, and a higher or 'intelligible' realm which is the ultimate Reality:

...I want you to go on to picture the enlightenment or ignorance of our human condition somewhat as follows. Imagine an underground chamber, like a cave with an entrance open to the daylight and running a long way underground. In this chamber are men who have been prisoners there since they were children, their legs and necks being so fastened that they can only look straight ahead of them and cannot turn their heads. Behind them and above them a fire is burning, and between the fire and the prisoners runs a road, in front of which a curtain-wall has been built, like a screen at puppet shows between the operators and their audience, above which they show their puppets.

"I see."

Imagine, further, that there are men carrying all sorts of gear along behind the curtain-wall, including figures of men and animals of wood and stone and other materials, and that some of these men, as is natural, are talking and some not.

"An odd picture and an odd sort of prisoner."

They are drawn from life, I replied. For, tell me, do you think our prisoners could see anything of themselves or their fellows except the shadows thrown by the fire on the wall of the cave opposite them?

"How could they see anything else if they were prevented from moving their heads all their lives?"

And would they see anything more of the objects carried along the road?

"Of course not."

Then if they were able to talk to each other, would they not assume that the shadows they saw were real things?

"Inevitably."

And if the wall of their prison opposite them reflected sound, don't you think that they would suppose, whenever one of the passers-by on the road spoke, that the voice belonged to the shadow passing before them?

"They would be bound to think so."

And so they would believe that the shadows of the objects we mentioned were in all respects real.

"Yes, inevitably."

Then... suppose one of them were let loose, and suddenly compelled to stand up and turn his head and look and walk towards the fire; all these actions would be painful and he would be too dazzled to see properly the objects of which he used to see the shadows. So if he was told that what he used to see was mere illusion and that he was now nearer reality and seeing more correctly, because he was turned towards objects that were more real, and if on top of that he were compelled to say what each of the passing objects was when it was pointed out to him, don't you think he would be at a loss, and think that what he used to see was more real than the objects now being pointed out to him?

"Much more real."

And if he were to look directly at the light of the fire, it would hurt his eyes and he would turn back and take refuge in the things which he could see, which he would think really far clearer than the things being shown him.

"Yes."

And if, I went on, he were forcibly dragged up the steep and rocky ascent and not let go till he had been dragged out into the sunlight, the process would be a painful one, to which he would much object, and when he emerged into the light his eyes would be so overwhelmed by the brightness of it that he wouldn't be able to see a single one of the things he was now told were real.

"Certainly not at first," he agreed.

Because he would need to grow accustomed to the light before he could see things in the world outside the cave. First he would find it easiest to look at shadows, next at the reflections of men and other objects in water, and later on at the objects themselves. After that he would find it easier to observe the heavenly bodies and the sky by night than by day, and to look at the light of the Moon and stars, rather than at the Sun and its light.

"Of course."

The thing he would be able to do last would be to look directly at the Sun, and observe its nature without using reflections in water or any other medium, but just as it is.

"That must come last."

Later on he would come to the conclusion that it is the Sun that produces the changing seasons and years and controls everything in the visible world, and is in a sense responsible for everything in that he and his fellow prisoners used to see.

"That is the conclusion which he would obviously reach."

And when he thought of his first home and what passed for wisdom there, and of his fellow-prisoners, don't you think he would congratulate himself on his good fortune and be sorry for them?

"Very much so."

There was probably a certain amount of honour and glory to be won among the prisoners, and prizes for keen-sightedness for anyone who could remember the order of sequence among the passing shadows and so be best able to predict their future appearances. Will our released prisoner hanker after these prizes or envy this power or honour? Won't he be more likely to feel, as Homer says, that

he would far rather be “a serf in the house of some landless man”, or indeed anything else in the world, than live and think as they do?

“Yes” he replied, “he would prefer anything to a life like theirs.”

Then what do you think would happen, I asked, if he went back to sit in his old seat in the cave? Wouldn't his eyes be blinded by the darkness, because he had come in suddenly out of the daylight?

“Certainly.”

And if he had to discriminate between the shadows, in competition with the other prisoners, while he was still blinded and before his eyes got used to the darkness - a process that may take some time - wouldn't he be likely to make a fool of himself? And wouldn't they say that his visit to the upper world had ruined his sight, and that the ascent was not even worth attempting. And if anyone tried to release them and lead them up, they would kill him if they could lay hands on him.

“They certainly would.”

Now, my dear Glaucon, I went on, this simile must be connected, throughout, with what preceded it. The visible realm corresponds to the prison, and the light of the fire in the prison to the power of the Sun. And you won't go wrong if you connect an ascent into the upper world and the sight of the objects there with the upward progress of the mind into the intelligible realm - that's my guess, which is what you are anxious to hear. The truth of the matter is, after all, known only to God. But in my opinion, for what it is worth, the final thing to be perceived in the intelligible realm, and perceived only with difficulty, is the absolute Form of Good; once seen, it is inferred to be responsible for everything right and good, producing in the visible realm light and the source of light, and being, in the intelligible realm itself, the controlling source of reality and intelligence. And anyone who is going to act rationally either in public or private must perceive it...

(*The Republic*) (51)

Plato held that in the phenomenal world, we are apparently separate from the Absolute, and in the higher world we are able to begin to comprehend the greater picture. “The One” is Plato's term for the Absolute, “The Good,” an aspect of the Absolute, and this concept is further discussed within the Commentary. The higher realm is discovered through what he termed dialectic, which can be broadly identified with philosophy, but is in fact more. In the Platonic concept of dialectic, which originates in the philosophy of Pythagoras, the element of opposition appears in a tension between the aspects of that which we know as reality: between feminine and masculine, being and becoming, the static and the dynamic, good and evil, zero and infinity, the One and the Many, between holism and reductionism:

“...I am myself a great lover of these processes of [reductionism] and [holism]; they help me to speak and think. And if I find any man who is able to see ‘a One and a Many’ in Nature, him I follow, and ‘walk in his footsteps as if he were a god.’ And those who have this art, I have hitherto been in the habit of calling dialecticians...”

(Plato, from *Phaedrus*)

Thus Plato's ideal dialectician sees reality as a dynamic unity-in-diversity, and all things as being ultimately aspects of a Whole that constitutes the ultimate reality. In accord with this, one of the foremost philosophers within the later Platonic Tradition was Plotinus; as a member and eventually Head of Plato's Academy in Athens in the 3rd century C.E., he saw himself as working to maintain “the Great Tradition”:

...The material Universe for Plotinus is a living organic whole. Its organic wholeness is the best possible reflection on the material level of the living unity-in-diversity of the world of forms in intellect. It is held together in every part by a universal sympathy and harmony... In this harmony, external evil and suffering take their place as necessary elements of the great pattern, the great dance of the Universe. Evil and suffering can affect our lower selves but cannot touch our true, higher selves and so cannot interfere with the real well-being of the philosopher who chooses to live on the higher level...

(*Encyclopedia Britannica*) (10)

STOIC PHILOSOPHY:

The Stoic philosophy grew largely from the Platonic and Pythagorean Traditions. The founder, Zeno, studied at Plato's Academy. For several centuries, the Stoic philosophy was the leading religious influence within the Greco-Roman civilisation. It has been argued that St Paul was a Stoic before his conversion to Christianity.

The Stoics held that the fundamental source of being is a subtle essence, manifested throughout the Universe, which can be characterised as Mind or Spirit. This Mind-Spirit was held to be immanent in the Universe as God, and in Man as the soul and life-giving principle. It was both the Creator and the material of the Universe; it was revealed as everything we see and experience. Thus the Stoic philosophy was essentially pantheistic.

They divided the study of Truth into three parts: Logic, Physics (essentially science, i.e. dealing with the physical world) and Ethics or moral philosophy, and they placed an emphasis on the latter. In relation to physics, or natural philosophy, one of the most learned Stoic philosophers, Poseidoneus of Rhodes, building on the work of the Pythagorean Aristarchus of Samos and Eratosthenes of Alexandria, calculated the diameter of the Earth and the distances to the Moon and the Sun to within around 30% accuracy, which was an astounding achievement for his time. Eighteen hundred years later Copernicus was to plagiarise Aristarchus' heliocentric cosmology as the basis for his own.

As with Confucianism, Stoicism was very much an ethic for everyday living, and totally grounded within the perennial philosophy. One of the central themes deriving from the Stoic philosophy was the placing of the highest importance on inner resources, *areté* or *virtus*, virtues of character, and the ability to overcome the passions. The terms such as 'Stoic fortitude,' 'Stoic endurance' and 'Stoic patience' are still important in our contemporary language. As Zeno writes:

"...God is not separate from the world; he is the soul of the world, and each of us contains part of the Divine Fire. All things are parts of one single system, which is called Nature; the individual life is good when it is in harmony with Nature. In one sense, every life is in harmony with Nature, since it is as Nature's laws have caused it to be; but in another sense a human life is only in harmony with Nature when the individual will is directed to ends which are among those of Nature. Virtue consists in a will which is in agreement with Nature. The wicked, though perforce they obey God's law, do so involuntarily; in the simile of Cleanthes, they are like a dog tied to a cart, and compelled to go wherever it goes. In the life of an individual man, virtue is the sole good; such things as health, happiness, possessions, are of no account. Since virtue resides in the will, everything really good or bad in a man's life depends only upon himself. He may be poor, but what of it? He can still be virtuous. He may be sentenced to death, but he can die nobly, like Socrates. Other men have power only over externals; virtue, which alone is truly good, rests entirely with the individual. Therefore every man has perfect freedom, provided he emancipates himself from mundane desires..."

(Zeno Stoicism Philosophy) (105)

And similarly, in the words of Seneca:

...The wise man, nevertheless, unequalled though he is in his devotion to his friends, though regarding them as no less important and frequently more important than his own self, will still consider what is valuable in life to be something wholly confined to his inner self.

As Stilbo said: "All my possessions are [within] me." Meaning by this the qualities of a just, a good and an enlightened character, and indeed the very fact of not regarding as valuable anything that is capable of being taken away...

(Letters from a Stoic) (50)

It was thus a core belief that nothing in the external world of experience was possessed by the individual self; if a man were to abandon his principles for material gain, even in order to save his own or family members' lives, something of true worth was lost and nothing important gained in return. It was taught that the chief objective of Man, and his highest level of existence, should be that of 'happiness,' but this was not the shallow happiness desired by the sensualist. Happiness was to be attained by 'living according to

Nature'. This was the life guided by reason and virtue: the Greek word '*areté*' and the Latin word '*virtus*' embraced the characteristics of nobility, moral insight, courage, self-control and upright dealing towards others. To the Stoics, virtue was indeed its own reward, and conversely, vice its own punishment. They held that '*the shortest route to wealth was the contempt of wealth,*' and that the happy and virtuous life was fully attainable in this life. By learning to accept fate with a steadfast and unclouded mind, by developing virtue, and by playing an active role in service to the community, one could begin to reflect, on an individual level, the grandeur and serenity of the order of the Cosmos.

Since all things were held to be manifestations of the one Creative Principle, the doctrine of universal brotherhood was a principal feature of the Stoic ethic. The good Stoic was required to demonstrate kindness to his fellow creatures, to make allowance for their ignorance, and help them in their need:

...All things are interwoven with one another; a sacred bond unites them; there is scarcely one thing that is isolated from another. Everything is coordinated; everything works together in giving form to the one Universe. The world-order is a unity made up of multiplicity: God is One, pervading all things; all being is One, all law is One (namely, the common reason which all thinking creatures possess) and all truth is One - if, as we believe, there can be but one path to perfection for beings that are alike in kind and reason...

...No matter whether the Universe is a confusion of atoms or a natural growth, let my first conviction be that I am a part of a Whole that is under Nature's governance; and my second that a bond of kinship exists between myself and all other similar parts. If I bear these two thoughts in mind, then in the first place, being a part, I shall not feel aggrieved by any dispensation assigned to me from the Whole; since nothing which is beneficial for any whole can ever be harmful to a part, and in this case there is nothing contained in this Whole which is not beneficial to itself. (The same, indeed, could be said of every natural organism; but the nature of the Universe has the further distinction that there is no cause outside itself which could ever compel it to produce anything harmful to itself.) In the remembrance, then, that I am a part of such a Whole, I shall cheerfully accept whatever may be my lot. In the second place, inasmuch as there is this bond of kinship between myself and my fellow parts, I shall do nothing that may injure their common welfare, but keep those kindred parts always purposefully in view, directing every impulse towards their good and away from anything that runs counter to it...

...Either the world is a mere hotch-potch of random cohesions and dispersions, or else it is a unity of order and providence. If the former, why wish to survive in such a purposeless and chaotic confusion; why care about anything, save the manner of the ultimate return to dust; why trouble my head at all; since do what I will, dispersion must overtake me sooner or later? But if the contrary be true, then I do reverence, I stand firmly, and I put my trust in the directing Power...

(From *Meditations* Marcus Aurelius) (1)

The Stoic philosophy was never intended for the faint-hearted. The development of nobility (*areté* or *virtus*) necessarily implied taking the hard, challenging road, and spirituality formed the very core of a Stoic's life. See "*On the Myth of Hercules*" in the Commentary.

ARATUS:

Aratus was a noteworthy Greek poet of the 3rd century BCE, and came from the tradition of the perennial philosophy:

...From Zeus let us begin; him do we mortals never leave unnamed; full of Zeus are all the streets and all the market-places of men; full is the sea and the havens thereof; always we all have need of Zeus. For we are also his offspring; and he in his kindness unto men giveth favourable signs and wakeneth the people to work, reminding them of livelihood. He tells what time the soil is best for the labour of the ox and for the mattock, and what time the seasons are favourable both for the planting of trees and for casting all manner of seeds. For himself it was who set the signs in heaven, and marked out the constellations, and for the year devised what stars chiefly should give to men right signs of the

seasons, to the end that all things might grow unfailingly. Wherefore him do men ever worship first and last. Hail, O Father, mighty marvel, mighty blessing unto men. Hail to thee and to the Elder Race! Hail, ye Muses, right kindly, every one! But for me, too, in answer to my prayer direct all my lay, even as is meet, to tell the stars.

(*The Phaenomena* Theoi E-Texts Library)

Aratus' *Phaenomena* is quoted positively within the New Testament, in Acts 17:28. As Barnes puts it in his commentary on the Bible:

... "For we are also his offspring" - This precise expression is found in Aratus (Phaenomena, v. 5), and in Cleanthes in a hymn to Jupiter. Substantially the same sentiment is found in several other Greek poets. Aratus was a Greek poet of Cilicia the native place of Paul, and flourished about 277 years before Christ. As Paul was a native of the same country it is highly probable he was acquainted with his writings. Aratus passed much of his time at the court of Antigonus Gonatas, king of Macedonia. His principal work was the "Phaenomena," which is here quoted, and was so highly esteemed in Greece that many learned men wrote commentaries on it. The sentiment here quoted was directly at variance with the views of the Epicureans; and it is proof of Paul's address and skill, as well as his acquaintance with his auditors and with the Greek poets, that he was able to adduce a sentiment so directly in point, and that had the concurrent testimony of so many of the Greeks themselves. It is one instance among thousands where an acquaintance with profane learning may be of use to a minister of the gospel...

Barnes' Notes on the Bible <http://bible.cc/acts/17-28.htm>

As will be seen later, *Phaenomena* was also cited favourably by Isaac Newton in the General Scholium to his *Principia Mathematica*.

VIRGIL:

The Roman poet Virgil was deeply influenced by Stoic philosophy. His rhetorical description of human reality is reminiscent of Plato's allegory of the Cave:

*"...Know first that Heaven, Earth, the watery plains,
The Moon's bright orb, and Titan's starry sphere -
These doth a Spirit inly feed; a Mind,
Its limbs pervading, stirs the whole mass through,
And with the vast frame mingles. Hence arise
Mankind, and Beastkind, winged life, and what
The Sea bears monstrous 'neath his marble floor.
Of fiery vigour, heavenly source, those germs,
Save as impaired by flesh corruptible,
Dulled with frames earthy, and limbs prone to death.
Hence they desire, and fear, and grieve, and joy,
Nor light of Heaven can they discern, shut fast
In the blind darkness of their prison-house..."*

(*Aeneid* vi 721)

JESUS OF NAZARETH:

Around two millennia ago, the Jewish rabbi Yehoshua Ben Yosef (otherwise the Christian Jesus) undertook a ministry which was in absolute harmony with the perennial philosophy, particularly that of the Pythagorean/ Platonic/ Stoic tradition. Three hundred years later, factional conflict among the movement's hierarchy, when the Emperor Constantine was moving to make Christianity his State religion, radically changed its direction. When the party of the Alexandrian presbyter Athanasius emerged to assume the "orthodox" mantle and consequently carried out purges, there was a move to exclude the Gospel of St. John from the officially recognised gospels of the New Testament, because it was most in harmony with

the perennial philosophy. The attempt was not successful although many other major Scriptures were effectively lost.

But even in the other Gospels there are problems for the credibility of the Trinitarian doctrine. What does one have to do to achieve eternal life as far as the founder of Christianity is concerned? Declare him to be the third person of the Holy Trinity? No. Only two things were necessary:

“...And, behold, a certain lawyer stood up, and tempted him, saying, Master, what shall I do to inherit eternal life? He said unto him, What is written in the law? How readest thou? And he answering said, Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy strength, and with all thy mind; and thy neighbour as thyself. And he said unto him, Thou hast answered right: this do, and thou shalt live... ”

Luke 10: 25-28

In John's Gospel the concept that everyone can become a ‘son of God,’ and Jesus' strong identification with God (something of course common to all mystics) are emphasised:

He came unto his own and his own received him not.

But as many as received him, to them gave he power to become sons of God, even to them that believe on his name.

John 1: 11-12.

Similarly, in the following passage, he is accused of blasphemy, in claiming that he is the son of God. *He replies that we all offspring of the Absolute and hence are "gods."* This directly and unambiguously confirms the mystical nature of his teaching. If he had wanted to claim a unique position as a person of a divine Trinity, this was surely the place to spell it out:

“My sheep hear my voice, and I know them, and they follow me: And I give unto them eternal life; and they shall never perish, neither shall any man pluck them out of my hand. My Father, which gave them me, is greater than all; and no man is able to pluck them out of my Father's hand. I and my Father are one.”

Then the Jews took up stones again to stone him.

Jesus answered them, “Many good works have I shewed you from my Father; for which of these do ye stone me?” The Jews answered him, saying, “For a good work we stone thee not; but for blasphemy; and because that thou, being a man, makest thyself God.”

Jesus answered them, “Is it not written in your law, I said, Ye are gods?”

“If he called them gods, unto whom the word of God came, and the Scripture cannot be broken; Say ye of him, whom the Father hath sanctified, and sent into the world, Thou blasphemest; because I said, I am the son of God?”

“If I do not the works of my Father, believe me not. But if I do, though ye believe not me, believe the works: that ye may know and believe, that the Father is in me and I in Him.”

John 10: 27-38

Jesus was referring here to the traditional Old Testament teaching in **Psalms 82:6**:

“I have said, Ye are gods; and all of you are children of the most High.”

This concept was widespread in the philosophical and religious culture of that time; compare this statement with the philosophy of Heraclitus:

...Heraclitus's philosophy is a religious philosophy... gods are everywhere: he was once sitting in the kitchen and invited visitors in, saying, “Here too are gods.”...

(Encyclopaedia of Mysticism) (29)

And here Isaac Newton too is in agreement:

...The word god usually signifies Lord; but every lord is not a god... Dr Pocock derives the Latin word Deus from the Arabic du... which signifies Lord. And in this case princes are called gods, Psalms

82.6; and John 10.35. And Moses is called a god to his brother Aaron, and a god to Pharaoh, Exodus, 4.16; and 7.1. And in the same sense the souls of dead princes were formerly, by the heathens, called gods...

The early Christian doctrine held that it is through total identification with the Absolute that the knowledge of having eternal life comes. If we are a part of the Absolute, then we were never created and will never cease to exist. As Jesus says:

“...That they may be one; as thou, Father, art in me, and I in thee, that they also may be one in us: that the world may believe that thou hast sent me.”

“And the glory which thou gavest me I have given them; that they may be one, even as we are one:”

“I in them, and thou in me, that they may be made perfect in one; and that the world may know that thou hast sent me, and hast loved them, as thou hast loved me.”

“Father, I will that they also, whom thou hast given me, be with me where I am; that they may behold my glory, which thou hast given me: for thou lovedst me before the foundation of the world.”

“O righteous Father, the world hath not known thee: but I have known thee, and these have known that thou hast sent me.”

“And I have declared unto them thy name, and will declare it: that the love wherewith thou hast loved me may be in them, and I in them.”

John 17: 21-26

Other books, too, have concepts that only make sense within the context of the perennial philosophy. In the following passage, he speaks of overcoming the sense of individual self to identify with the universal Self, or Absolute.

“Behold, I stand at the door, and knock: if any man hear my voice and open the door, I will come in to him and will sup with him, and he with me.”

“To him that overcometh will I grant to sit with me in my throne, even as I also overcame, and am set down with my Father in his throne.”

Revelation 3: 20-21

Some of the works which the Athanasians ordered to be destroyed were hidden, and have been rediscovered comparatively recently. The Oxyrhynchus Logia of Jesus were papyrus manuscripts, found in the 1920s in tombs in Upper Egypt and which date back to the middle of the 2nd century C.E. These early Christian writings, and others found at Nag Hammadi in Egypt in 1947 confirm that there was a strong component of the perennial philosophy within Christianity, at least until the time of the Council of Nicaea in 325 C.E. Discovery of this material has radically changed our concept of the development of Christianity:

“...Whenever there are two, they are not without God, and where there is one alone, I say I am with him. Raise the stone and thou shalt find me; cleave the wood and there I am. Let not him who seeks cease until he finds, and when he finds he shall be astonished. Astonished he shall reach the Kingdom, and having reached the Kingdom, he shall rest.”

This is the viewpoint not of an individual, but of one who identifies with the Absolute, or in the terms of his metaphor, the Father:

Jesus said: “I am not your master. Because you have drunk, you have become drunk from the bubbling stream I have measured out... He who will drink from my mouth will become as I am: I myself shall become he, and the things that are hidden will be revealed to him.”

And again,

“Who then are they that draw us and when shall come the Kingdom that is in Heaven?”

“The fowls of the air and of the beasts, whatever is beneath the earth or upon the earth, and the fishes of the sea, these they are that draw you. And the Kingdom of Heaven is within you and whosoever knoweth himself shall find it. And, having found it, ye shall know yourselves that ye are

sons and heirs of the Father, the Almighty, and shall know yourselves that ye are in God and God in you. And ye are the City of God.”

(From the Gospel of Thomas)

In the so-called orthodox Scriptures, Paul delivers a similar message:

...For as many as are led by the Spirit of God, they are the sons of God.

For ye have not received the spirit of bondage again to fear; but ye have received the Spirit of adoption, whereby we cry, Abba, Father.

The Spirit itself bears witness with our spirit, that we are the children of God:

And if children, then heirs; heirs of God, and joint heirs with Christ; if so be that we suffer with him, that we may be also glorified together...

(Romans 8: 14 -17)

Coming from the Stoic tradition, Paul would have been familiar with the concept of all creatures being God's offspring. He had discourse with the Epicurean and Stoic philosophers when in Greece, and in addressing them, explicitly acknowledged a major point of agreement on doctrine. Here the Panentheistic concept “All in God” is again explicit. Much of the gospel's message is incomprehensible except when in this context:

...they should seek the Lord, if haply they might feel after him, and find him, though he be not far from every one of us:

For in him we live and move, and have our being; as certain of your own poets have said, for we are also his offspring...

(Acts 17.27, 28)

Early Christianity lies well within the mainstream of the perennial philosophy. It is interesting to compare the following quotation with the Eastern doctrine that the individual self is at the highest level illusory; that one must learn to transcend the self to realise the Self:

And there went great multitudes with him and he turned, and said unto them:

“If any man come unto me, and hate not his father, and mother, and wife, and children, and brethren, and sisters, yea, and his own life also, he cannot be my disciple.”

(Luke 14: 25-26)

Like the Stoics, Yehoshua Ben Yosef warned his followers that the way to enlightenment was long and the discipline hard. Only the most spiritual could follow his example.

EPICETUS:

Epictetus was a Greek slave living in Rome in the 1st century C.E. As a Stoic, he drew from that philosophy the strength to endure his fate, and eventually to overcome it. On gaining his freedom, he became a teacher of philosophy. His nobility in the face of adversity was truly Stoic, and there is a startling similarity to early Christian doctrine:

...“My brother ought not to have treated me thus.”

True: but he must see to that. However he may treat me, I must deal rightly with him. This is what lies with me, what none can hinder...

...Give thyself more diligently to reflection: know thyself: take counsel with the Godhead: without God put thine hand unto nothing!...

There is the declaration of Man's divinity, totally in line with the concept of the early Christians:

...If a man could be thoroughly penetrated, as he ought, with this thought, that we are all in an especial manner sprung from God, and that God is the Father of men as well as of gods, full surely he would never conceive aught ignoble or base of himself. Whereas if Caesar were to adopt you, your haughty

looks would be intolerable; will you not be elated at knowing that you are the son of God? Now however it is not so with us: but seeing that in our birth these two things are commingled - the body which we share with the animals, and the Reason and Thought which we share with the gods, many decline towards this unhappy kinship with the dead, few rise to the blessed kinship with the Divine. Since then everyone must deal with each thing according to the view which he forms about it, those few who hold that they are born for fidelity, modesty, and unerring sureness in dealing with the things of sense, never conceive ought base or ignoble of themselves: but the multitude the contrary...
(The Golden Sayings of Epictetus) (72)

CHRISTIANITY AND THE IMPACT OF THE COUNCIL OF NICAËA:

Christianity was to lose the greater part of its founder's message in the centuries following his death. There was a serious lack of understanding within the young Church's hierarchy. In fact, there was a strong incentive for the priests to misinterpret Christ's message, because he expected them to be servants rather than masters of their congregations. There is a strong argument that orthodox Christianity would better be termed 'Athanasianism' than Christianity.

Consider the following commentary on the Council of Nicaea in 325 C.E., in which the emperor Constantine forced a decision in favour of the doctrines of Athanasius. He apparently believed this to be in the best interests of Christian unity, and hence of the unity of his Empire. A State religion needed the discipline of a universal creed and an organised structure, which Christianity did not possess at that time. The Encyclopedia Britannica is rather coy about drawing conclusions in this area, but the implication is clear:

The Council of Nicaea... is an event of the highest importance in the history of Christianity...

...The conflict kindled by the Alexandrian presbyter Arius with regard to the relation of Christ to God assumed a more formidable character...The deliberations on the Arian question passed through several distinct stages before the final condemnation of Arius and his doctrines was reached. A clearly defined standpoint with regard to this problem...was held only by the comparatively small group of Arians and a not much larger group who adhered... to the [opposing, Athanasian] view. The bulk of members occupied a position between these two extremes... That the majority of the council should have adopted this neutral tendency is easily intelligible when we consider the state of theology at that period. True, at Nicaea this majority eventually acquiesced in the ruling of the [Athanasians]; yet this result was due, not to internal conviction, but partly to indifference, partly to pressure of the imperial [i.e. Constantine's] will - a fact which is mainly demonstrated by the subsequent history of the Arian conflicts...The [Nicene] creed was later assailed by those very bodies which had composed the laissez-faire centre at Nicaea; and we are compelled to the conclusion that, in this point, the voting was no criterion of the inward convictions of the council... That [Constantine] appreciated the import of [his actions], or that he realised that this revision was virtually the proclamation of a new doctrine is scarcely probable. The creed thus evolved by an artificial unity was no ratification of peace: in fact, it paved the way for a struggle that convulsed the whole empire. For it was the proclamation of the Nicene Creed that first opened the eyes of many bishops to the significance of the problem there created; and its explanation led the Church to force herself, by an arduous path of theological work, into compliance with those principles, enunciated at Nicaea, to which, in the year 325, she had pledged herself without genuine assent...

(Encyclopedia Britannica; 14th edition) (10)

The "arduous path of theological work" principally involved the doctrine of divine incarnation. The Athanasians justified this doctrine by reasoning that the sin of Adam and Eve had to be redressed before Man could be saved. Aldous Huxley is one who obviously believes this concept an absurdity:

...Can the many fantastic and mutually incompatible theories of expiation and atonement which have been grafted on to the Christian doctrine of divine incarnation, be regarded as indispensable elements in a "sane theology"? I find it difficult to imagine how anyone who has looked into a history of these notions, as expounded, for example, by the author of the Epistle to the Hebrews, by

Athanasius and Augustine, by Anselm and Luther, by Calvin and Grotius, can plausibly answer this question in the affirmative. In the present context, it will be enough to call attention to one of the bitterest of all the bitter ironies of history. For the Christ of the Gospels, lawyers seemed further from the Kingdom of Heaven, more hopelessly impervious to Reality, than almost any other class of human beings except the rich. But Christian theology, especially that of the Western churches, was the product of minds imbued with Jewish and Roman legalism...

(The Perennial Philosophy) (23)

In his book *Jesus: the Evidence*, Ian Wilson corroborates this conclusion expressed in the Encyclopedia Britannica, and goes further:

...Whatever his motives, Constantine ruled in favour of the [Athanasians], Eusebius' formula was heavily edited to accommodate the [Athanasian] view, and, while affirming that the standpoint of the Antiochenes was entirely reasonable, Constantine urged all Council delegates to sign the revised formula as a statement of faith on which all Christians should in future agree. For all those who signed, there was the inducement of an invitation to stay on at Nicaea as Constantine's guests for his twentieth anniversary celebrations. For those who refused there was immediate banishment...Perhaps not unexpectedly, all but two of the most die-hard Arian loyalists signed. But from the none too truthful face-saving letter Eusebius of Caesarea sent back to his home diocese, it is clear how uneasy he felt about the extent to which he had compromised the fundamental principles of what he had been taught about Jesus. Other signatories, who were equally swayed into acquiescence by their awe of the forceful Constantine, felt exactly the same. Only on returning home did Eusebius of Nicomedia, Maris of Chalcedon and Theognis of Nicaea summon the courage to express to Constantine in writing how much they regretted having put their signatures to the Nicene Formula: "We committed an impious act, O Prince," wrote Eusebius of Nicomedia, "by subscribing to a blasphemy from fear of you."

(Jesus: The Evidence) (39)

As is well known, Roman emperors declared themselves divine, and Constantine was no exception. To also declare Jesus' divinity would have been of no great consequence to him. Wilson argues strongly against the orthodox concept. This extract is only a small part of his case:

...From all that we know of Jesus, is it possible that he regarded himself as God? The gospels' answer is clear. In the Mark gospel, the most consistent in conveying Jesus' humanity, a man is represented as running up to Jesus and addressing him with the words "Good master." Jesus' response is a firm rebuke: "Why do you call me good? No one is good but God alone."

(Mark 10: 18)

(Jesus: The Evidence) (39)

A further instance in support of the case for reinterpretation of the orthodox doctrine of divine incarnation is Jesus' impassioned plea on the cross: "My God, my God, why hast thou forsaken me?"... This is inexplicable within a Trinitarian context.

Athanasian (or "Orthodox") Christianity appears to be in terminal decline. Arguably, there is an urgent need for the Church to revisit the decision made at Nicaea, and acknowledge the Christ in the same way that the Buddhists understand the Buddha: a human being who attained to a higher state of consciousness. In essence, the concepts of the Buddha and the Christ each have oneness at their core and there is thus a strong case that these are but different terms for the one thing.

THE CODEX SINAITICUS:

The Codex Sinaiticus, one of the oldest bibles still extant, confirms how the Christian religious scriptures (and doctrines) were still in a state of flux in the 4th century C.E:

Codex Sinaiticus is one of the most important witnesses to the Greek text of the Septuagint (the Old Testament in the version that was adopted by early Greek-speaking Christians) and the Christian New Testament. No other early manuscript of the Christian Bible has been so extensively corrected.

A glance at the transcription will show just how common these corrections are. They are especially frequent in the Septuagint portion. They range in date from those made by the original scribes in the fourth century to ones made in the twelfth century. They range from the alteration of a single letter to the insertion of whole sentences.

One important goal of the Codex Sinaiticus Project is to provide a better understanding of the text of the Codex and of the subsequent corrections to it. This will not only help us to understand this manuscript better, but will also give us insights into the way the texts of the Bible were copied, read and used.

By the middle of the fourth century there was wide but not complete agreement on which books should be considered authoritative for Christian communities. Codex Sinaiticus, one of the two earliest collections of such books, is essential for an understanding of the content and the arrangement of the Bible, as well as the uses made of it.

The Greek Septuagint in the Codex includes books not found in the Hebrew Bible and regarded in the Protestant tradition as apocryphal, such as 2 Esdras, Tobit, Judith, 1 & 4 Maccabees, Wisdom and Sirach. Appended to the New Testament are the Epistle of Barnabas and 'The Shepherd' of Hermas.

The idiosyncratic sequence of books is also remarkable: within the New Testament the Letter to the Hebrews is placed after Paul's Second Letter to the Thessalonians, and the Acts of the Apostles between the Pastoral and Catholic Epistles. The content and arrangement of the books in Codex Sinaiticus shed light on the history of the construction of the Christian Bible...

There are some extremely significant differences between the *Codex Sinaiticus* and later versions of the Bible. Just a couple of cases are:

...Matthew 24 tries to answer those who ask when the Day of Judgment will be: "of that day and hour knoweth no one, not even the angels of heaven, neither the Son, but the Father only." In Sinaiticus (and other ancient manuscripts too), the phrase "neither the Son" is omitted in later editions. (Some scholars have suggested a theologically motivated reason for suppressing these words "neither the Son" as it was no doubt unacceptable to some later Christians that Jesus might not be on the same level with the Father)...

...The scribes of both Codex Sinaiticus and Vaticanus were no doubt struggling with producing the most accurate Bible possible. However because of all the tampering, it is difficult to know today which words were authentic and which were not.

Some references would indicate that this tampering of Holy Scriptures was significant. For example, in the second century C.E., Origen (185-254 C.E.) complained how the Scriptures were being tampered with during his day: "Men add to them or leave out, as seems good to them". Around 170 C.E., Dionysius of Corinth commented that it was no wonder his own writings were tampered with, seeing that others presumed to debase the Word of God in a similar manner. Irenaeus (a contemporary) likewise complained of a corrupted text.

<http://www.entheology.org/library/winters/NEWTEST2.TXT>

THE INTERPENETRATION OF STOICISM AND CHRISTIANITY:

Stoicism has much in common with early Christianity. This fact is discussed by Maxwell Staniforth in his introduction to the *Meditations* of Marcus Aurelius:

...the theology of the Christian Church owes a large debt to Stoicism. In the original gospel of Christ the moral and spiritual elements predominated, and the intellectual element was wholly subservient to them. But when the message spread beyond the confines of Palestine, and its implications were assimilated by thoughtful men in other lands, the need for more exact conceptions of the truth made itself felt. It became evident that the new faith must raise a multiplicity of questions in the fields of cosmogony, metaphysics, psychology, and ethics; and for all these the Church had to discover some

coherent system of answers. Fortunately, much of the material for the task lay ready to hand. The ground had already been explored by the schools of pagan philosophy, and their findings constituted the accepted body of contemporary scientific knowledge. Many of the men who flocked into the Christian community during the second century had been educated in these doctrines from their youth; the majority of them in the principles of Stoicism, since that system more than any other attracted the naturally religious type of mind. To them, therefore, the churchmen turned for aid in building the structure of their theology. This is not to imply an uncritical or wholesale appropriation of the pagan ideas. Rather, when a philosophical theory seemed to suggest the lines along which Christian thought might seek its own solution of a problem, it was taken as a working hypothesis and tested for its possibilities; after which, in a suitably modified form, it might find its place in the new religion. In the words of Dr. Prestige, "the idea was cut to fit the Christian faith, not the faith trimmed to square with the imported conception..."

...in the doctrine of the Trinity, the ecclesiastical conception of Father, Word and Spirit finds its germ in the different Stoic names for the Divine Unity. Thus Seneca, writing of the supreme Power which shapes the universe, states, "This Power we sometimes call the All-ruling God, sometimes the incorporeal Wisdom, sometimes the holy Spirit, sometimes Destiny." The Church had only to reject the last of these terms to arrive at its own acceptable definition of the Divine Nature; while the further assertion that "these three are One", which the modern mind finds paradoxical, was no more than commonplace to those familiar with Stoic notions.

Other instances of Christian ideas which had previously been taught by the Stoics are the conviction that men are "God's offspring" and partake of his nature, and the consequent belief that we should regard all men as our brothers and neglect no opportunity of benefiting a fellow-creature...

*(introduction to **Meditations**; Penguin classics) (1)*

THE PYTHAGOREANS, THE ESSENES, CHRISTIANITY AND INDIAN PHILOSOPHY:

The Essenes formed a religious brotherhood based in the then strongly Greek-influenced culture of Egypt and Palestine, and as previously stated, the Pythagoreans were a religious, scientific and philosophical order that had a profound influence on Socrates, Plato and Greek philosophy in general. There were apparently links between Pythagoreanism and the Jewish Essene sect:

...Neo-Pythagoreanism is a link in the chain between the old and the new in pagan philosophy. It connects the teaching of Plato with the doctrines of Neo-Platonism and brings it into line with the later Stoicism and with the ascetic system of the Essenes. A comparison between the Essenes and the Neo-Pythagoreans shows a parallel so striking as to warrant the theory that the Essenes were profoundly influenced by Neo-Pythagoreanism...

(Encyclopedia Britannica; 14th edition) (10)

The Jewish-Roman historian Josephus, writing between A.D.75 and A.D.85, also confirmed in his writing that the Essenes were Pythagorean in lifestyle:

"...The sect of the Essenes... live the same kind of life which among the Greeks has been ordered by Pythagoras..."

(The Essenes: Their History and Doctrines) (128)

There is reason to believe that the Pythagoreans (and hence, probably, the Essenes) were influenced by ideas from Mesopotamia, Egypt and India. As the historian William McNeill puts it:

...Pythagoras may have known something about the contemporary religious and philosophical thought of India. This would, of course, explain why some of the doctrines of the Upanishads strikingly resemble what little is known about Pythagoreanism. It is a fact that in Pythagoras' youth the city of Samos had close commercial relations with Egypt, and there is some reason to think that a colony

of Indian merchants lived permanently in Memphis, Egypt from about 500 B.C. Overland contact, via the Persian court, which ruled both Greek and Indian provinces, was also entirely possible. c.f. Nilikantra Sastri, "Ancient Indian contacts with Western Lands," Diogenes, No.28 (1959)...

(The Rise of the West) (55)

In his book *The Awakening of the West*, Stephen Batchelor concurs with this, and goes further:

...Greek colonies are known to have existed in India at least since the time of Buddha in the sixth century B.C.E. In a discourse from the Middle Length Sayings, the Buddha tries to convince the young brahman Assalayana that the Indian social castes are not divinely ordained but variable, as with the Greeks where permanent membership of one of two castes - master or slave - is far from guaranteed. While this reference to Greeks shows that they were sufficiently known at the time to serve as an example in educated discussion, both their location in the Northwest, far from where the Buddha lived and taught, and this sole mention in the early Buddhist canon make it unlikely that any contact ever took place between the Buddha and these displaced Europeans.

*Who were these early Greek settlers? The historian Arrian tells of how Dionysus, the subversive god of frenzy, conquered India and founded cities, created laws and introduced the Indians to the delights of wine. Although Dionysus is mythical, the presence of his Greek devotees in India is not. It was their descendants that Alexander the Great encountered in the city of Nysa in the Hindu Kush during his Indian campaign (326 B.C.E). That they were Ionian Greeks from Asia Minor (today the Aegean coast of Turkey) is suggested by the Pali word for them: **Yona**.*

At the time of the Buddha the Ionian Greeks had reached a peak of intellectual development, yet were politically weak, struggling for survival against Persia. The Ionian Pythagoras was an exact contemporary of Buddha and professed a world-view with striking similarities to some of his Indian counterparts. Not only did he believe in rebirth and non-violence, he saw his teachings as implying a rigorous spiritual discipline based on renunciation, supported by a like-minded community and aimed at the liberation from birth and death...

(The Awakening of the West) (84)

There is considered to be a high degree of probability that John the Baptist was a member of the Hemerobaptists (or *Tobeles-Shaharith*), a branch of the Essenes. Some have claimed (and it would appear with some justification, in view of the fact that John was recognised as a colleague) that Jesus Christ and St. John the Apostle also were Essenes. In line with this, Ian Wilson in *Jesus: the Evidence* draws attention to similarities in imagery between the Essene Dead Sea Scrolls and the Gospel of John:

...the intriguing feature of the Scrolls is that their authors, undeniably full-blooded Jews, were using in Jesus' time precisely the same imagery previously thought "Hellenistic" in John. As is well known, the John gospel prologue speaks of a conflict between light and darkness. The whole gospel is replete with phrases such as "the spirit of truth", and "eternal life". A welter of such phrases and imagery occur in the Dead Sea Scrolls' Manual of Discipline. The John gospel's prologue,

*He was with God in the beginning,
Through him all things came to be,
Not one thing had its being but through him.*

(John 1: 2-3)

*is strikingly close to the Manual of Discipline's
All things came to pass by his knowledge,
He established all things by his design
And without him nothing is done.*

(Manual 11: 11)

This is but one example of a striking similarity of cadence and choice of words obvious to anyone reading Gospel and Manual side by side.

(Jesus: The Evidence) (39)

Buddhist missionaries are known to have been active in the Egyptian city of Alexandria around the time of

Jesus. Thus the commonly held concept that the environment in which the Christian religion had its genesis was isolated and independent of that of other contemporary cultures is not correct. In addition to contact through the Persian Empire, even greater scope for contact existed through the successors of Alexander, the Hellenic Seleucid Empire and later its associated Greco-Bactrian kingdom, which between them occupied Palestine, Persia and western India continuously for around three centuries until about 50 B.C.E. Thus, a convenient mechanism for the dissemination of religious philosophies existed between East and West, interrupted by the rise of Islamic power for the best part of a millennium:

...Both Indian and Chinese art styles of [the period 200 B.C.E. to 200 C.E.] were profoundly affected by Greek sculpture. In religion and in science, a parallel, though less striking, process may be detected. Mahayana Buddhism, for example, shows influence of Hellenistic religious conceptions, while Indian and Chinese astronomy appropriated numerous Hellenistic elements...

(The Rise of the West) (55)

Whereas Theravada Buddhism is non-theistic, the Mahayana tradition tends to have, like that of the Greeks, a greater panentheistic element. That the Greeks were similarly influenced by Indian philosophy is confirmed by the fact that Plotinus, in the 3rd century C.E., joined the military expedition of the Emperor Gordian III, in the hope of re-establishing contact and studying Persian and Indian philosophy at first hand. Again, quoting McNeill:

...A key figure in bringing Greek and Indian high intellectual traditions into contact with each other may have been Ammonius Saccas (d.242), himself perhaps of Indian origin, and who probably taught both Plotinus (d.270), the great renovator of [Platonism], and Origen (d.254?), the first systematic theologian of the Christian church. At any rate, many of Plotinus' most important doctrines seem to echo the Upanishads...

(The Rise of the West) (55)

There would appear to have been many connections between the Greek (including the Jewish) and Indian philosophic traditions, through Pythagoras to Parmenides, Socrates, Plato, and the Essenes, and through Ammonius Saccas to Plotinus and Origen.

The crucial point of all this, however, is that if Jesus was an Essene, then he was certainly a mystic, and his teachings were in accord with Pythagoreanism and other forms of the perennial philosophy. One of the Essene affirmations was that “the Heavenly Father and I are one...”

SUFISM:

Sufism exists mainly within the Islamic world, as the mystical school within orthodox Islam, but some people in the West who are not Muslims also count themselves as Sufis. It is a bridge between the Western (Platonic), and the Eastern (Indian) traditions. The Sufi identification with the One is illustrated in a parable of Jalal al-Din Rumi:

One knocked at the Beloved's Door; and a Voice asked from within, "Who is there?" and he answered, "It is I." Then the Voice said, "This house will not hold Me and Thee." And the Door was not opened.

Then went the Lover into the Desert, and fasted and prayed in Solitude. And after a Year, he returned and knocked again at the Door. And again the Voice asked, "Who is there?" and he said, "It is Thyself!"... and the Door was opened to him.

And:

...None grasps Him save He Himself. None knows Him but He Himself... He knows Himself by Himself... Other-than-He cannot grasp Him. His impenetrable veil is His own Oneness. Other-than-He does not cloak Him. His veil is His very existence. He is veiled by His Oneness in a manner that cannot be explained. Other-than-He does not see Him; whether prophet, envoy, or perfected saint, or angel near unto Him. His prophet is He Himself. His envoy is He. His message is He. His word is He. He has sent word of His Ipseity by Himself, from Himself to Himself, without intermediary or causality other than Himself... Other-than-He has no existence and so cannot bring itself to naught...

Muhyi-d-Dīn ibn 'Arabī in his "Epistle on Unity" the *Risālat al-Aḥādīyah*

The Sufi philosophy can rightly be described as pantheistic:

I am the dust in the sunlight, I am the ball of the Sun, To the dust I say: Remain. And to the Sun: Roll on.

I am the mist of morning. I am the breath of evening; I am the rustling of the grove, the singing wave of the sea.

I am the mast, the rudder, the steersman and the ship. I am the coral reef on which it founders.

I am the tree of life and the parrot in its branches, Silence, thought, tongue and voice.

I am the breath of the flute, the spirit of man; I am the spark in the stone, the gleam of gold in the metal,

The candle and the moth fluttering round it, the rose, and the nightingale drunk with its fragrance.

I am the chain of being, the circle of the spheres, the scale of creation, the rise and the fall.

I am what is and is not. I am - O you who know, Jaluladdin, O say it - I am the Soul in all.

(Encyclopaedia of Mysticism) (29)

Omar Khayyam, known to the West principally for his poetry as interpreted through Edward Fitzgerald, was also Sufi, Pantheist, brilliant mathematician, astronomer, and philosopher. His imagery can sometimes be reminiscent of Plato's allegory of the Cave:

This vault, underneath which we live bemused

Is, so to speak, God's magic shadow-show:

With Sun for lamp, the world as a wide screen

For countless lie-rehearsing silhouettes.

(The Rubaiyyat of Omar Khayyam) (5)

Omar dryly affirmed the essence of his monistic world-view:

Though pearls in praise of God I never strung,

Though dust of sin lies clotted on my brow,

Yet will I not despair of mercy.

When did Omar argue that the One was Two?

MAIMONIDES:

Maimonides (Moses ben Maimon, 1135-1204), born in Spain, and later Court Physician to Saladin, is a pivotal figure in both Jewish and European culture. Maimonides was the most eminent codifier of Jewish religious law, but also systematically interpreted the Jewish tradition with reference to the philosophy of ancient Greece. Although living in the Islamic world, philosophers such as Maimonides reintroduced Greek culture and philosophy to Europe, and this "cross fertilization" of the two great cultures was eventually to give birth to the Renaissance.

In his principal philosophical work "*The Guide for the Perplexed*," he pitched his thesis at two levels, one to maintain the faith of the masses, and one for the philosophical elite. The first two of his concepts of the Absolute are arguably not in accord with the third:

1. The Absolute as universal Mind. In the Absolute, the knowing subject, the object known and the act of intellectual knowledge were held to be a unity. Within this context, the Absolute is not a Creator, but is identical with the Creation.
2. The Absolute is incapable of being known by finite minds. The only knowledge we can have is of a reflected quality, through Nature.
3. The Deity has an eternal will that acts beyond the constraints of natural laws. Within this context, the miracles of the Scriptures would be possible.

One surmises that this third concept was employed by Maimonides to meet the religious believer's need for an ultimate active, intervening Agency. It is not implausible that within the reality we know, a very powerful intelligent agency may exist, or evolve, which may be able to act in a way that we would regard as apparently contrary to the laws of Nature. This "Deity" would necessarily, however, be a secondary and vastly lesser agency *within* the Absolute. This will be discussed more fully within the Commentary.

THE CONVIVENCIA:

The Renaissance was sparked in Spain as a result of interaction between Muslim, Jewish and Christian culture. It is an example of a symbiosis which benefits all who participate:

...It all begins in what some remember as a kind of paradise. The Iberian Peninsula, cut off from Europe by nearly impassable mountains, and spared the long darkness of northern barbarian domination, had been the locus of rich intermingling of Moorish, classical, Christian and Jewish cultures. Three geographically distinct regions pollinated one another economically, intellectually, and aesthetically: the seafarers on the west, the land tenders and silk makers in the south, and the castle dwellers and townspeople of the centre and north.

A common culture resulted from the balance of these various regions, and it even included an anomalous mixing of religious influences. Spanish historians refer to this period as convivencia, a word loosely translated as "coexistence," but one implying a far more creative interaction than that of, say, the United States and the Soviet Union during their time of coexistence.

Jews were taught Arabic by Muslim scholars, and they mastered the Koran as well as Hebrew Scriptures. Mathematics, astronomy, and medicine were complimented by the study of philosophy, based on the entire corpus of Aristotle and much of Plato. Extant scholarly works by Jews, dating to the convivencia period, establish that many Jews mastered those subjects. The most familiar figure is the Cordoba native Moses ben Maimon, whose writings prove the point: Perhaps the most revered of all Jewish sages, Maimonides wrote in Arabic, not Hebrew.

The scholar Norman Roth is one of my important sources of information on the life of the Jews in Iberia. He writes: "The names cited by Maimonides in his work read like a Who's Who of classical and Muslim philosophy and science: Plato and Aristotle, of course, but also Alexander of Aphrodisias, Themistius, John Philoponus, Euclid, Ptolemy, Pythagoras, and almost all the Muslim philosophers." Maimonides would not have been Maimonides had he not lived in Iberia, no matter what his genius... Because his creativity and his intelligence were nurtured by the richest diversity of influences in the world – among the richest in history – Maimonides became "the greatest genius ever produced by the Jewish people"...

(CONSTANTINE'S SWORD) (124)

MEISTER ECKHART:

Johann Eckhart was a member of the Dominican order, and achieved high office, becoming Vicar General of Bohemia, and later of Saxony. He received his Doctorate from the University of Paris in 1302. Late in life, he was accused of heresy and found guilty posthumously. Eckhart was mystic, philosopher and theologian. He was influenced by Albertus Magnus, Thomas Aquinas, Plotinus, Augustine and Dionysius the Areopagite. He held that there was essentially no duality between Man and God, or indeed between matter and God; that all things were ultimately One, and that this was the message of Jesus Christ:

...When is a man in mere understanding? I answer, "When a man sees one thing separated from another." And when is a man above mere understanding? That I can tell you: "When a man sees All in all, then a man stands above mere understanding..."

...The knower and the known are one. Simple people imagine that they should see God as if He stood there and me here. This is not so. God and I, we are one in knowledge...

...For though she sink all sinking in the oneness of divinity, she never touches bottom. For it is of the very essence of the soul that she is powerless to plumb the depths of her Creator. And here one cannot speak of the soul any more, for she has lost her nature yonder in the oneness of the divine essence. There she is no more called soul, but is called immeasurable being...

...When I came out of the Godhead into multiplicity, then all things proclaimed, "There is a God" (the personal Creator). Now this cannot make me blessed, for hereby I realise myself as creature. But in the breaking through I am more than all creatures; I am neither God nor creature; I am that which I was and shall remain, now and forever more. There I receive a thrust which carries me above all angels. By this thrust I become so rich that God is not sufficient for me, insofar as He is only God in his divine works. For in thus breaking through, I perceive what God and I are in common. There I am what I was. There I neither increase nor decrease. For I am the immovable which moves all things. Here man has won again what he is eternally and ever shall be. Here God is received into the Soul...

(quoted in *The Perennial Philosophy*) (23)

LEONARDO DA VINCI:

Generally regarded as the archetypal Renaissance man, Leonardo was able to think and work with great distinction in the fields of engineering (man-powered flight, canals and military engines), science (hydraulics, botany and anatomy), and art (architecture, painting and sculpture). As with the Pythagoreans, he was convinced of the importance of mathematics in the study of Nature:

...For Leonardo the essence of any true knowledge was mathematics. It was the basis of all understanding, of any explanation of the visible phenomena and the underlying mechanisms of beings and things...

In terms of Leonardo's philosophy, Jean Mathe argues that as with the more advanced thinkers of his time, he was a Platonist and hence firmly in accord with the perennial philosophy:

...The diffuse nature of Leonardo's efforts remind one of Aristotle, yet his unitary conception of the world shows that he is a disciple of Plato.

He attempted the synthesis of the ancient theory of the elements (water - earth - fire) and the Platonic superposition of the macrocosm of the Universe and the microcosm of man.

For him Nature was a living giant: just like man, it has breathing (the winds), circulation (the tides of the oceans) and motion (earthquakes and natural disasters).

This was the origin of his two great passions: the need to know the anatomy of man and the forces governing the laws of the Universe.

(from *Leonardo's Inventions*; Jean Mathe) (47)

...Francis I, King of France and patron of Leonardo da Vinci, once proclaimed in a conversation with the King of Navarre and the Cardinals of Ferrara and Lorraine that nobody in the world knew more than Leonardo. As much reverence as Francis I had for Leonardo's sculpture, painting, and architecture, he expressly specified philosophy as the subject in which he thought Leonardo especially excelled. And yet our modern era is not in the habit of reckoning Leonardo da Vinci a philosopher...

*The medieval theologians that are regularly designated as Schoolmen, or Scholastics, are referred to as such because of their propensity for drawing conclusions from textbooks rather than investigating what the sensory world had to offer. The direct investigation of the natural world was one of the hallmarks of the later Renaissance. In 1614, Francis Bacon's *New Atlantis* detailed an ideal society devoted to empirical research. In 1620, with the publication of *Novum Organum*, Bacon was also doing pioneer work on inductive logic, touting the merits of 'experience' in the quest for truth. For this, Bacon is credited with being the father of empiricism.*

A century before Bacon, though, Leonardo da Vinci's contempt for the book learning of the ivory tower is unmistakable, and in the Atlantic Codex manuscript he makes a clarion call on behalf of empiricism:

"I am fully conscious that, not being a literary man, certain presumptuous persons will think that they may reasonably blame me; alleging that I am not a man of letters. Foolish folks! Do they not know that I might retort as Marius did to the Roman Patricians...by saying: That they, who deck themselves out in the labour of others will not allow me my own. They will say that I, having no literary skill, cannot properly express that which I desire to treat of...; but they do not know that my subjects are to be dealt with by experience rather than words...; and [experience] has been the mistress of those who wrote well. And so, as a mistress, I will cite her in all cases.

Though I may not, like them, be able to quote other authors, I shall rely on that which is much greater and more worthy: – on experience, the mistress of their Masters... They will scorn me as an inventor; but ... those men who are inventors and interpreters between Nature and Man, as compared with boasters and declaimers of the works of others, must be regarded and not otherwise esteemed than as the object in front of a mirror, when compared with its image seen in the mirror... Many will think they may blame me by alleging that my proofs are opposed to the authority of certain men held in the highest reverence by their inexperienced judgements; ... [M]y works are the issue of pure and simple experience, who is the one true mistress."

As disposed to empiricism as Leonardo was, he was fully alive to the importance of mathematics well over a century before Galileo and Descartes. The propriety of fusing mathematics and empiricism was completely clear to him.

Reminiscent of the sign at the entrance of Plato's Academy admonishing anybody ignorant of mathematics to refrain from entering, we find in the fourth Windsor anatomy manuscript of Leonardo's this impassioned directive: "Let no man who is not a Mathematician read the elements of my work." In the Library of the Institut de France's G notebook manuscript, Leonardo insists upon the uncertainty plaguing any 'science' that is insusceptible to mathematical treatment or altogether unrelated to mathematics.

*The University of Naples' Nicola Abbagnano explains that "The privilege accorded to mathematics was most certainly a legacy from Platonism. Leonardo took from Plato's **Timaeus** and Ficino's commentary on it the doctrine that the elements of natural bodies are geometric forms; thus the efficacy of mathematics as an instrument of investigation was justified for him by the fact that nature itself is written in mathematical characters and that only those who know the language of mathematics can decipher it." To be sure, Leonardo can be found speaking in a Platonic strain about the mundanity of sensory perception vis-à-vis the loftiness of pure thought.*

Leonardo's respect for 'experience' and 'observation,' though, retained its hold on him as an anchor grounding him in the everyday world rather than having him lost in the transcendental world of mathematics. This comes out clearly in his statements that "if you say that the sciences which begin and end in the mind contain truth, this cannot be conceded, and must be denied for many reasons. First and foremost because in such mental discourses experience does not come in, without which nothing reveals itself with certainty"...

...When viewed overall, Leonardo da Vinci was ahead of his time by celebrating 'experience' as his 'one true mistress.' Most remarkable of all, is Leonardo's conviction that this knowledge derived from experience, in order to be truly worthy of the name, must lend itself to mathematical treatment. He greatly appreciated the promise such mathematically mastered empirical data augured for

mechanical science. And his acute interest in and understanding of mechanical science even inclined him to perceive animals, and nature at large, as also operating according to mechanical laws. "To us his personality seems to outspan the confines of his age, to project itself by the inherent force of its vitality down into modern times and so to take its due place among the intuitive influences of modern thought."

In conclusion, the writings of Da Vinci anticipate some of the greatest philosophic insights of the great ages to come and should certainly be reckoned among the accomplishments that are Leonardo's legacy...

(Chad Trainer **Philosophy Now**)

MICHAEL SERVETUS:

Servetus was both natural philosopher and theologian. In the former role he discovered the pulmonary circulation of the blood. Because of his writings in the latter, John Calvin had him burned alive in 1553.

Servetus was born in Spain, and had friends amongst the Christian, Jewish and Islamic communities. He studied the Christian Scriptures and concluded that the concept of the Holy Trinity was not mentioned in them. Servetus wanted most of all to reconcile the Islamic, Christian and Jewish traditions, and re-establish the Convivencia. He vainly tried to influence Calvin who was trying to reform the Church in his own way.

Servetus was a pantheist:

"...It is my fundamental principle that all things are a part or portion of God and that the nature of things is the substantial spirit of God..."

To which Calvin is said to have replied:

"...Wretch, if one stamps on the floor does one stamp on God?..."

Well, yes, actually. But more critically, Servetus' theological system was vulnerable to the argument that if the Absolute contained all things, it necessarily contained all evil. This problem is important, but eminently soluble: the Absolute is beyond Good and Evil. The terms are meaningless in the context of the One thing, just as the relationship between an organism and one of its cells cannot be evil. Nietzsche takes up this theme later.

GIORDANO BRUNO:

Bruno was also a true genius, a universal man. He studied the ideas of the Stoics, the Pythagoreans, the Platonists, Nicolaus Cusanus, the Arabian philosophers Ibn Rushd (Averroes) and Ibn Sina (Avicenna), and from this standpoint rejected many of the orthodox dogmas of the Christian church.

On learning of the ideas of Copernicus, he intuitively grasped the idea of infinity, and applied it to the Universe; he extended the Copernican concept (which still naively maintained a finite Universe with a sphere of fixed stars surrounding the Sun) and rejected the idea that the Cosmos had a centre. Aristarchus of Samos (through Copernicus) had begun the demolition of the notion that the Earth was the centre of the Universe, and Bruno now did the same for the Sun. He insisted that every celestial body was mobile, and proposed the maxims that our earthly laws of Nature are applicable to the whole Universe, and that the chemistry of Nature is the same everywhere.

'...Bruno traveled to England and befriended its leading political and scientific figures; and when he returned, he popularised Copernican theory on the continent. Bruno took Digges's version of [an] infinite, Copernican universe and purged it of remaining Ptolemaic elements, such as the perfect spheres that carried the planets' orbits. He made this infinite universe, with its infinite inhabited worlds, the basis of his philosophy, integrating Nicholas of Cusa's thinking, even going beyond it. Bruno explicitly challenged the idea of creation ex nihilo, arguing that the universe must be unlimited in both space and time, without beginning or end.'

(The Big Bang Never Happened) (126)

He believed that these hypotheses would eventually be confirmed, and he challenged the natural philosophers of the future to:

...Open wide the door for us, so that we may look out into the immeasurable starry Universe; show us that other worlds like ours occupy the ethereal realms; make clear to us how the motion of all worlds is engendered by forces; teach us to march forward to greater knowledge of Nature...

...Sky, Universe, all-embracing ether, and immeasurable space alive with movement - these are of one nature. In space there are countless constellations, suns and planets; we see only the suns because they give light; the planets remain invisible, for they are small and dark. There are also numberless earths circling their suns, no worse and no less inhabited than this globe of ours. For no reasonable mind can assume that heavenly bodies which may be far more magnificent than ours would not bear upon them creatures similar or even superior to those upon our human Earth...

(And There Was Light) (6)

He conceived the Universe to be the physical manifestation of a universal intelligence; individual minds were held to be particular manifestations of the Universal Mind, just as particular objects were manifestations of universal matter. In the words of Rudolf Thiel:

...For Bruno matter and God were not contradictory; he saw nothing but Oneness in the All. The Supreme Being was revealed not in the Holy Scriptures, but in everything created. Nature was the only absolute Bruno would accept...

(6)

Bruno chose to walk among these giants of the cosmological pantheon as a philosopher, first endorsing Copernicus' sun-centered model and praising him as the herald of a new age, then going far beyond him to proclaim boldly, as a philosopher (based on no more than the scant teachings of a few ancient philosophers and his own intuition and inner-visions) these, to him, absolute truths:

The universe is infinite with matter as we know it extending throughout;

The universe has no borders or limits;

The sun is just another star;

The stars are other suns, infinite in number and in extent with an infinity of worlds, like our own, circling them.

In the universe there is neither up, nor down, right, nor left but all is relative for there is no center;

All is turning and in motion, for endless 'vicissitude-and-motion' is the principle of life;

Earth turns around its own axis even as it turns around the sun, as the sun turns, too, around its own axis

*Bruno first presents these ideas in three early cosmological dialogues: *La cena de la cenere* (The Ash Wednesday Supper), *De la causa, principio et uno* (Cause, Principle and Unity), and *De l'infinito universo et mundi* (Of the Infinite Universe and Worlds) – all, as noted, written in his native Italian during his stay in England and published in England from the latter half of 1584 through 1585. As such, all were well-positioned to affect the author of the Shakespeare plays.*

*In several of these works, Bruno calls his own character Philoteo or Teofilo, and the cast of characters always includes one or more Followers and a Pendant. Bruno also wrote poems that he placed throughout his works, and his last and greatest work, *De Immenso*, is rhymed Latin verse. The following unrhymed verse (Dorothea Waley Singer's translation) appears in *De l'infinito*. It is decidedly free-form and 'modern' for the 16th Century.*

Naught standeth still, but all things swirl and whirl

As far as in heaven and beneath is seen.

All things move, now up, now down,

Whether on a long or a short course,

*Whether heavy or light;
Perchance thou too goest the same path
And to a like goal.
For all things move till overtaken,
As the wave swirlleth through the water
So that the same part
Moveth now from above downward,
And now from below upward,
And the same hurly-burly imparteth to all,
the same successive fate.*

Essentially this is the picture. Back then, all were trying to decide, for the fate of the world and the destiny of future Man, the following:

- *What is at the Center of the universe of spheres?*
- *What goes around what?*
- *And whether the outer sphere is of this world, or whether it goes all the way up and stops at Heaven.*

And Bruno comes along and says:

There is no center, there are no spheres, and... there is no Heaven!

Imagine yourself on the path of the familiar. Copernicus is like tripping. You fall down. With Bruno you look up and see you've fallen at the edge of a great precipice and you're staring down into... a vast chasm. Space. Endless, infinite space. Eternity...

In reality however the challenge went much deeper. For although much was made of Earth as the center, the reality was that Earth was a stand-in for man whose vested interest made himself the center; and man – as the Bible makes clear – was created not only to replenish the Earth but to “subdue” it, for he has “dominion” over “every thing that creepeth” on it and over “every living thing that moveth...” (Genesis 1: 26-28)

Looking back today at the fray Bruno threw himself into, we might say that it wasn't about Earth, or scripture, at all. Earth and scripture were, in a way, only metaphors for “who was in charge” in the ultimate king-of-the-hill game played by patriarchal authorities intent on maintaining Man's centrality – not Earth's. Copernicus, for all the uproar, never challenged this man-centered patriarchal world-view justified in Genesis; he merely offset it. Bruno, in fact, demolished it – or tried to. Bruno's world-view meant that men could no longer do what they wanted to the planet and its creatures.

We are, he said, mere specks in the grand design – and no more important than rocks or ants! This message – of Bruno, of Victor Hugo, of Whitman, Thoreau, Melville, and countless others – has threaded its way down the centuries, woven into the mind's fabric of a few dissidents, a few disgruntled prophets, philosophers and writers; it has been savored by an esoteric few for brief moments, then set aside as one might close a book or stop a daydream when the harsh getting-and-spending light of day calls for real-world action – based on what? An illusory credit card, the biblical carte [blanche] issued when time began that humans have twisted into some kind of manifest destiny that is, in fact, running out – because it never really existed.

But Bruno's unpopular message – and the reality – is that we are only a small part of a much larger whole, and every part, no matter how small, is equal in life's design...

(A Primer to Giordano Bruno

Julia Jones)

(130)

Bruno's ideas were to influence thinkers such as Descartes, Spinoza and Leibniz. It was in England that his

cosmological concepts were most influential, and this had a significant effect in facilitating the later development of the Newtonian theory of universal dynamics. In both France and Germany, he has been recognised as the ‘prophet’ of modern philosophy and science.

Eventually being seized by the Roman Catholic Church and charged with heresy, he made a desperate attempt to demonstrate that his views were in accord with the original Christian concept of God and Creation. His arguments were rejected, and before being sentenced to be burned at the stake, he told his judges:

*“I await your sentence with less fear than you pass it.
The time will come when all will see what I see.”*

(6)

BARUCH SPINOZA:

Because of the similarity of his religious ideas to those of Bruno, Spinoza was an outsider not only in his own Jewish community, but also in the wider community. Spinoza held as self-evident the existence of an Absolute that encompasses all reality, and he identified Nature or the material Universe, and consciousness, as being the only two of its infinite “qualities” which we can experience. Spinoza’s God is the Whole, and to deny the existence of the Whole is contrary to reason. He held the Universe to be an organism (in the broadest sense), that is conscious throughout:

... For our purposes, it is instructive to note that Spinoza, reflecting the tradition that set him apart, resolved the question of the relationship of matter to spirit differently than Descartes and others did. “Nothing exists save the one substance – the self-contained, self-sustaining, and self-explanatory system which constitutes the world.” This is Roger Scruton’s summary of Spinoza’s metaphysics... All things that exist, exist necessarily, in thoroughgoing interdependence.” This is a philosophy of “both-and,” not “either-or,” and it has tremendous implications for religion and politics. If God lives in all that is, then a human being may have no great need of the mediating institutions of church or synagogue to be in contact with the divine. Similarly, a political society’s main goal should be respect for every member as equal to every other, since all are instances of God’s presence. The sovereign is to be valued no more than any citizen...

Like Bruno, he referred to the human mind, and in fact all minds, as part of the infinite intellect of God. Thus, Spinoza arrived at a philosophy that could be characterised as a blend of Panpsychism (All is Mind) and Pantheism (All in God). This was to be misunderstood, both in his time and later:

...In accordance with the common practice of denouncing anybody as an atheist whose conception of God was different from theirs, Spinoza was generally described as an atheist by his contemporaries and others. Hegel protested the injustice of this. Spinoza, he said, was so far from denying the existence of God that he acknowledged no other ultimate reality - so far from being an atheist he was an acosmist... The term acosmism has since been applied to philosophies like those of the Vedanta, of Buddhism and of Schopenhauer...

(Encyclopedia Britannica) (10)

...For much of the eighteenth and nineteenth centuries, Spinoza would be either neglected or dismissed as an atheist or misunderstood as having been a “God-intoxicated” pantheist whose notion that everything is divine made scientific objectivity impossible. But in the years immediately after his death, an incubation period of modernity, Spinoza’s influence was widely felt. His ideas, Leibnitz said in 1704, were “stealing gradually into the minds of men of high station who rule the rest and on whom affairs depend, and slithering into fashionable books, are inclining everything towards the universal revolution with which Europe is threatened.”

The century of revolution did, of course, break over Europe. If Spinoza is little credited with the beneficial effects of the birth of liberal democracy, not to mention of a theology freed from superstition, it should not surprise us, given this history, that he would nevertheless be blamed for the negative aspects of a revolutionary era...

(*The Sword of Constantine*) (124)

Spinoza's own writing can appear extremely unexciting, as he structured his thesis along the same lines as that used by Euclid. A few examples of this are:

- *[The material Universe] was not created by God but is one of the infinite attributes of God.*
- *God, or substance, consisting of infinite attributes, of which each expresses eternal and infinite essentiality, necessarily exists.*
- *The eternal and infinite Being, which we call God or Nature, acts by the same necessity as that whereby it exists.*
- *Whatsoever is, is in God, and without God nothing can be, or be conceived.*
- *All things which come to pass, come to pass solely through the laws of the infinite nature of God, and follow from the necessity of the divine nature.*

The philosopher T.L.S.Sprigge in his book *Theories of Existence* has reviewed the Spinozist position for the benefit of the general reader:

...For the Spinozist Nature itself, or the Universe as a whole, is God. Spinozism is thus a form of pantheism, this being the doctrine that God and the whole of things are one and the same.

Were this thesis no more than the decision to use the word "God" to denote the totality of all that is, it would be at least vacuous, at worst an excuse to go on speaking of there being a God, when his existence in any ordinary sense is denied. There have always been charges that Spinoza was really an atheist who, from residual piety, liked to be able to use quasi-religious language in talking about the Universe. However there is much more to his position than is recognised by those who make this charge. For he calls Nature or the Universe "God", because he thinks that it answers to certain descriptions usually thought of in the developed Judæo-Christian tradition as specifying some of the most important traits which make God God...

...Wordsworth...was conscious that he was expressing a Spinozistic point of view when he spoke

*Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean and the living air,
And the blue sky, and in the mind of man:
A motion and a spirit, that impels
All thinking things, all objects of all thought,
And rolls through all things*

*This passage from Wordsworth suggests a positive answer to the next question I think one should ask oneself in considering whether it was proper for Spinoza to use the word "God" to denote Nature or the Universe, as he conceived it, namely the question whether God or Nature (*Deus sive Natura*, as Spinoza himself said in the Latin in which his main work was written) is a possible object of religious emotion, even of some kind of worship. For it would be unsuitable to call anything "God" which does not call forth this sort of emotion in those who thus call it. Spinoza himself does not write in very romantic language, but it seems that he felt a kind of cosmic religious emotion towards the self-conscious totality of things in which he believed...*

[If the Totality] is an infinite consciousness of itself as a whole and in every detail, and is such that it could not have failed to exist, and if it is the only being of which this is true, it certainly seems to be close enough to what is usually understood by God to be thus called. Yet this concept of God diverges from, for example, orthodox Christian ones, in that it thinks that [God has a material manifestation] as the whole physical Universe. Yet a physical universe which is conscious of itself through and through is so different from so much mere matter, as we usually think of it, that this conception rather raises our conception of matter than lowers our conception of God...

(*Theories of Existence* T.L.S.Sprigge) (45)

Spinoza should arguably be regarded more as panentheistic than pantheistic; he held that all we can know and experience with our senses is a mere glimpse of the Totality. In Spinoza's philosophy, humanity is an integral part of the infinite Whole. He believed that the individual should seek the Absolute with his divinely given gifts of reason and intuition; intuition for Spinoza was a mystical understanding - characterised by what he called *Amor Dei Intellectualis* - "the intellectual love of God" - into the interdependence of all things, including the human being, within Nature. Again, quoting Sprigge:

...I suspect... that for Spinoza [the intellectual love of God] implied something of a more mystical nature, some rapturous sense of one's oneness with the Cosmos at large, and of its essential oneness in all its varying phenomena...

...For the Spinozist, then, this Universe in which we are elements is essentially one to be loved and enjoyed; what mainly stands in the way of such love and enjoyment is mental confusion and distraction, and there are techniques for reducing these, though we have to accept that they cannot be totally eliminated. There are certainly evils which will come our way, and one must adopt an attitude of quiet endurance to these when they cannot be removed, recognising that they are part of a scheme to be delighted in, in its totality...

(45)

JOHN DONNE:

Poet, Clergyman and Religious writer, Dean of St. Paul's from 1621 to 1631; Donne was also a student of the Hermetic Tradition:

*... No man is an island,
Entire of itself,
Every man is a piece of the continent,
A part of the main.
If a clod be washed away by the sea,
Europe is the less.
As well as if a promontory were.
As well as if a manor of thy friend's
Or of thine own were:
Any man's death diminishes me,
Because I am involved in Mankind,
And therefore never send to know for whom the bell tolls;
It tolls for thee. .*

BLAISE PASCAL:

Pascal (1623-1662) was a natural philosopher, mathematician, theologian and writer; he was a child prodigy, and at twelve years old was appointed to a commission to judge the procedures for reckoning longitude. At the age of sixteen he published an important book on conic sections. Descartes refused to believe that it could have been the work of someone so young. Three years later he developed the first practical calculating machine.

In his early twenties, he came under the influence of the religious community of Port Royal and by his early thirties he rejected his scientific activities in order to devote himself to meditation and religious writing. His output included the unfinished *Pensees* - a work whose brilliance inspired Voltaire:

"...Let man contemplate the whole of Nature in her full and grand majesty, and turn his vision from the low objects which surround him. Let him gaze on that brilliant light, set out like an eternal lamp to illuminate the universe; let the Earth appear to him a point in comparison with the vast circle described by the Sun; and let him wonder at the fact that this vast circle is itself but a very fine point in comparison with that described by the stars in their revolution around the firmament. But if our view be arrested there, let our imagination pass beyond; it will sooner exhaust the power of

conception than Nature that of supplying material for conception. The whole perceptible world is but an atom in the ample bosom of Nature. No idea approaches it. We may enlarge our conceptions beyond all imaginable space; we only produce atoms in comparison with the reality of things. It is an infinite sphere, the centre of which is everywhere, the circumference nowhere. In short it is the greatest sensible mark of the almighty power of God, that imagination loses itself in that thought...

[It is worth noting at this point that the concept of “an infinite sphere, the centre of which is everywhere, the circumference nowhere” is a good analogue of the concept of many contemporary cosmologists, of the universe as a *hypersphere*, without centre or boundary.]

“...But to show him another prodigy equally astonishing, let him examine the most delicate things he knows. Let a mite be given him, with its minute body and parts incomparably more minute, limbs with their joints, veins in the limbs, blood in the veins, humours in the blood, drops in the humours, vapours in the drops. Dividing these last things again, let him exhaust his powers of conception, and let the last object which he can arrive at be now that of our discourse. Perhaps he will think that here is the smallest point in Nature. I will let him see therein a new abyss. I will paint for him not only the visible universe, but all that he can conceive of Nature's immensity in the womb of this abridged atom... Let him lose himself in wonders as amazing in their littleness as the others in their vastness. For who will not be astounded at the fact that our body, which a little while ago was imperceptible in the universe, itself imperceptible in the bosom of the whole, is now a colossus, a world, or rather a whole, in respect to the nothingness which we cannot reach? He who regards himself in this light will be afraid of himself, and observing himself sustained in the body given him by Nature between the two abysses of the Infinite and the Nothing, will tremble at the sight of these marvels; and I think that, as his curiosity changes into admiration, he will be more disposed to contemplate them in silence than to examine them with presumption.”

“For in fact what is man in Nature? A Nothing in comparison with the Infinite, an All in comparison with the Nothing, a mean between nothing and everything. Since he is infinitely removed from comprehending the extremes, the end of things and their beginning are hopelessly hidden from him in an impenetrable secret; he is equally incapable of seeing the Nothing from which he was made, and the Infinite in which he is swallowed up.”

“What will he do then, but perceive the appearance of the middle of things, in an eternal despair of knowing either their beginning or their end. All things proceed from the Nothing, and are borne towards the Infinite...”

(Pensees) (107)

On one occasion, Pascal apparently experienced a mystical 'illumination,' or what Abraham Maslow would call a *peak experience*:

“...After his death there was found stitched into his clothes a rough drawing of a flaming cross and the verbal record of a mystical experience:

*In the year of grace 1654 Monday, 23
November, the day of St. Clement, Pope and
Martyr, and others in the Martyrology;
the eve of St Chrysogonus, Martyr, and others;
from about half-past ten in the evening 'till
about half an hour after midnight*

FIRE

*God of Abraham, God of Isaac, God of Jacob,
Not of the philosophers and learned.
Certitude. Joy. Certitude. Emotion. Sight. Joy.
Forgetfulness of the world and of all outside God.
The world hath not known Thee, but I have known Thee.*

*Joy! Joy! Joy! Tears of joy.
My God, wilt Thou leave me?
Let me not be separated from Thee for ever...*

(from *Encyclopaedia of Mysticism*) (29)

ISAAC NEWTON:

Arguably the highest ranking scientist of all time, Newton studied and built on the ideas of the ancient philosophers, and in this context, he wrote:

Amicus Plato — amicus Aristoteles — magis amica veritas

(Plato is my friend — Aristotle is my friend — but my greatest friend is Truth)

(Wikiquotes)

It is also well known that he paid tribute to his predecessors in saying that if he had seen further than others, it was because he had ‘stood on the Shoulders of Giants.’

He was not a Christian, or at least certainly not what should rightly be termed an Athanasian:

[He] firmly believed... that the true message of Scripture had been deliberately and maliciously hidden from at least the time of the villainous St. Athanasius... There was, for Newton, a conspiracy on the grandest scale to deceive...

(*Newton’s Scientific and Philosophical legacy*) (122)

He was necessarily extremely cautious in the articulation of his philosophical ideas, as denial of the Christian Trinity was still illegal in Britain until 1813. However as he gained in stature through the recognition of his scientific achievements, he was able to become more venturesome in the expression of his thoughts. In the General Scholium to his *Principia Mathematica*, Newton felt confident enough to insert a brief summary of some of his religious philosophy, which can be seen to have much in common with Stoicism, and hence with Pantheism:

“...God... is omnipresent not virtually only, but also substantially; for virtue cannot exist without substance. In Him are all things contained and moved... This was the opinion of the ancients. So -

- *Pythagoras, in Cicero De Natura Deorum*
- *Thales*
- *Anaxagoras*
- *Virgil Georgics iv 220, and Aeneid vi 721* *[refer pages 9 and 27]*
- *Philo Allegories at the beginning of Book I*
- *Aratus in his Phænomena, at the beginning* *[refer page 22]*

So also the sacred writers: as

- *St. Paul, in Acts 17.27, 28* *[refer page 30]*
- *St. John’s Gospel, 14.2* *[refer page 48]*
- *Moses in Deuteronomy, 4.39; and 10.14.*
- *David in Psalms 139.7, 8, 9*
- *Solomon in Kings 8.27*
- *Job 22.12,13,14*
- *Jeremiah 23.23, 24...*

“...It is allowed by all that the Supreme God exists necessarily; and by the same necessity he exists always and everywhere...”

Principia Mathematica (101)

This last sentence sounds quite Spinozistic. Newton’s philosophy differed subtly from that of Alexander Pope, who as we will see in the next section, held with a slightly dualistic concept that the Absolute is manifest as universal Spirit (God) and Nature as Its body. Newton explicitly denies this:

“...the instinct of brutes and insects can be the effect of nothing else than the wisdom and skill of a powerful, ever-living Agent, who being in all places, is more able by His will to move the bodies

within his boundless uniform sensorium, and thereby to form and reform the parts of the Universe, than we are by our will to move the parts of our own bodies. And yet we are not to consider the world as the body of God. He is an uniform Being, void of Organs, Members or Parts, and they are his Creatures subordinate to him, and subservient to his Will; and He is no more the soul of them than the soul of man is the soul of the species of things carried through the organs of sense into the place of its sensation, where it perceives them by means of its immediate presence, without the intervention of any third thing... the organs of sense are not for enabling the soul to perceive the species of things in its sensorium, but only for conveying them thither; and God has no need of such organs, He being everywhere present to the things themselves...

Optics (102)

This view is in accord with Spinoza's proposition that:

"...the mind and the body are one and the same thing, which is conceived now under the attribute of thought, now under the attribute of extension [matter]."

Spinoza's philosophy was well known and respected by thinkers such as Locke, Boyle and Oldenburg, each of whom also collaborated closely with Newton:

"...I believe that no biographer has yet pointed out the possibility of Spinoza's views having influenced Newton, for this great Dutch-Jewish philosopher was the only one among the philosophers of the seventeenth century who may be ranked with Newton. Oldenburg, secretary to the Royal Society, visited Spinoza at his residence at Rhynsburg in 1661 and was in correspondence with him from 1661 until 1665 and afterwards, 1675-76, concerning scientific, philosophical and theological problems. It is known that Boyle was interested in Spinoza's view, and it is most probable that Newton too had some knowledge of Spinoza and his works. The Theological-Political Treatise (1670) greatly influenced English metaphysicians, for example, Locke. It might have influenced Newton's political and theological views as well."

(Otto Blüh letter to **Nature**)

In fact not a biographer, but his old antagonist Leibniz, did explicitly highlight the link between Spinoza and Newton. As a young man, Leibniz was initially supportive of the broad thrust of the perennial philosophy, but later apparently changed his opinion as he came to realise its revolutionary implications for the then social order, in which he held a privileged position. He consequently opposed Spinoza and also accused Newton of Spinozism, which in the intellectual climate of their time was tantamount to branding him an atheist. In fact, Newton was not a Spinozist, but there was certainly a very considerable degree of commonality in the two great thinkers' philosophies.

As mentioned, Spinoza's (and arguably, Newton's) proposition is that mind and body are merely different manifestations or aspects of the same thing, and in the same way, the universal Mind and the physical Universe are merely two *attributes* of the absolute Ground of Being. An analogy of this concept has been given in the relationship between sound waves and music:

*"...when I hear music, I hear a sequence of sounds, distinguished by their pitch, timbre and duration, which are events in the physical world. A physicist can give a thorough description of these sounds as vibrations in the air... and that is what I hear, when I listen to music. But I also hear these sounds in another way, a way that is not captured by their physical description... A critic, describing the music, is describing the very same objects as the physicist who describes the sounds; and yet he is interpreting them in mental terms, seeing the **intention** that animates the musical line and drives the melody to its logical conclusion. The music is not separate from the sounds. Rather it **is** the sounds. And that, incidentally is why music is so important to us: it provides a sudden insight into the soul of the world..."*

(**The Great Philosophers**) (103)

And, correspondingly, an appreciation of Nature provides a degree of insight into the nature of the Absolute.

THE GREAT COMPOSERS:

Further to this notion that music can allow access to a transcendent reality, consider the case of three of the great composers, Bach, Mozart and Beethoven:

Bach's music including *The Mass in B Minor* and *The St Matthew Passion* is considered the supreme expression of the Sacred within the Western musical canon. He avoided working with Opera, and in doing so effectively cut himself off from the possibility of the material wealth achieved by people such as his contemporary Handel. It has been argued that music was sacred to him in its own right:

"...Studies of theology, religious symbolism, allegory and rhetoric tell us much about the historical context and function of Bach's music, but alone they do not adequately reveal how Bach conceived of his music. In other words, the purely theological viewpoint often illuminates the message of Bach's music without giving any explanation of his conception of the medium. It is the very basis of my approach here to contend that there may indeed be contradictions between the historical religious context and specifically, the metaphysical basis of his creative work. Throughout, I negotiate a delicate and speculative tightrope: on the one hand in conjecturing about Bach's own view of the task of composition (and performance) from a sparse array of verbal documents, and on the other in surmising what his music and certain tendencies in his composition may tell us."

"While I offer a general study of some of the conception of music and its relation to religion in Bach's age, I give particular attention to one particular hypothesis that Bach saw the very substance of music as constituting a religious reality, that the more perfectly the task of composition (and, indeed, performance) is realized, the more God is immanent in music. Traditionally, something of this conception has been inferred from the intertwining of the sacred and the secular in Orthodox Lutheran thought, and indeed in Luther's own attitude towards music as a vital aspect of Christian life... Furthermore, the Pythagorean tradition of viewing music as the sounding evidence of God's creation was still evident in the writings of music theorists who embraced natural theology. But an outright avowal of the immanence of God and the sacred in music would have been unthinkable within Orthodox Lutheranism. As in most of the monotheistic religions, God is essentially a figure transcending the imperfect earthly realm, accessible only through specific avenues (e.g. Revelation and the discipline of faith). To affirm – unequivocally – an immanent sacrality in music is to be open to the charge of pantheism, something which undercuts the distinction between God and this world, and something which could be seen to undermine the very transcendent basis of Christian morality..."

(The Cambridge Companion to Bach) (117)

Bach is regarded by many as the greatest of Western composers:

"...In his old age Haydn went to great trouble to obtain a manuscript copy of the Mass in B Minor. At nearly the same time young Mozart, visiting the St. Thomas Church in Leipzig, upon hearing a Bach motet for the first time, exclaimed "Now there is music from which a man can learn something." Whereafter, it is recorded, Bach's grand-successor ushered the young composer into the library where Mozart quickly spread out reams of Bach in earnest study. No wonder Beethoven exclaimed "Not Bach [i.e. Brook], but Meer [Ocean] should be his name!" Mendelssohn revived Bach, and Brahms eagerly awaited each new edition of Schumann's Bach Gesellschaft..."

Although his great successor Mozart was not a Christian, he was a Freemason, and of necessity affirmed belief in the existence of a Supreme Being. Although Mozart's detailed beliefs are not certain, this would indicate that he was either a Deist (believer in an impersonal Deity) or a Pantheist. As with Bach, his sacred musical works such as the *Requiem* and *The Great Mass in C* arguably constitute his greatest achievements.

Beethoven was strongly influenced by the pantheistic ideas of Spinoza through the writings of Goethe. He was apparently also influenced by Eastern philosophy, and notes relating to Hindu scriptures were found in his diaries after his death. Again, he considered the *Missa Solemnis* to be his greatest work and the Ninth Symphony, popularly acclaimed as being one of his greatest masterpieces, incorporated the words of the hymn *The Ode to Joy* of Friedrich Schiller, who was also deeply influenced by Baruch Spinoza.

The main point in all this is that each of these three great musicians associated the transcendence of music with the transcendence of the Sacred.

ALEXANDER POPE:

Pope expressed his own form of pantheism most directly in his poem *An Essay on Man*:

*“...All are but part of one stupendous whole,
Whose body, Nature is, and God the soul;
That chang'd thro' all, and yet in all the same,
Great in the earth, as in th' aethereal frame,
Warms in the sun, refreshes in the breeze,
Glow's in the stars, and blossoms in the trees,
Lives thro' all life, extends thro' all extent,
Spreads undivided, operates unspent,
Breathes in our soul, informs our mortal part,
As full, as perfect, in a hair as heart;
As full, as perfect, in vile Man that mourns,
As the rapt Seraph that adores and burns;
To him no high, no low, no great, no small;
He fills, he bounds, connects and equals all...*

*...God loves from Wholes to Parts: But human soul
Must rise from Individual to the Whole.
Self-love but serves the virtuous mind to wake,
As the small pebble stirs the peaceful lake;
The centre moved, a circle straight succeeds,
Another still, and still another spreads;
Friend, parent, neighbour, first it will embrace;
His country next; and next all human race;
Wide and more wide, the o'erflowings of the mind
Take every creature in, of every kind;
Earth smiles around, with boundless bounty blest,
And Heaven beholds its image in his breast...*

(An Essay On Man) (73)

ADAM SMITH:

Adam Smith is generally regarded as being the father of economics, but in fact he had a far-ranging intellect, equally at home in moral philosophy, aesthetics and jurisprudence. His writings were certainly influential in the development of liberal economics, in that he advocated minimal intervention by Government in the economy of the nation. He criticised the results of Mercantilist restrictions on trade, such as export bans, import duties, subsidies for inefficient industry and penalties for efficient enterprises.

On the other hand, although he was a strong advocate of market forces, he believed that a healthy community is shaped by, in his words, “*enlightened self-interest*.” This enlightenment had to come from virtue, and Smith’s ideas had their genesis and development during his twelve years as Professor in Moral Philosophy at the University of Glasgow.

In respect to philosophy in general, he was strongly influenced by the Stoics, for whom morality was one of the “three pillars” of philosophy. Here he discusses the Stoic principle that virtue is its own reward:

“...The ancient Greek philosophy was divided into three great branches; physics, or natural philosophy; ethics, or moral philosophy; and logic. This general division seems perfectly agreeable to the nature of things.”

“In the ancient philosophy, whatever was taught concerning the nature either of the human mind or of the Deity, made a part of the system of physics. Those beings, in whatever their essence might be supposed to consist, were parts of the great system of the Universe, and parts, too, productive of the most important effects...”

“...Wherein consisted the happiness and perfection of a man, considered not only as an individual, but as a member of a family, of a State, and of the great society of Mankind, was the object which the ancient moral philosophy proposed to investigate. In that philosophy the duties of human life were treated as subservient to the happiness and perfection of human life...”

But this “happiness” of the Stoics had nothing to do with hedonism. Smith argued that our Western moral philosophy was corrupted with the collapse of Greek and Roman civilisation. The areté of affirmative action within this life was supplanted by that of the “virtue” of blind faith, with the hope of a reward in an afterlife:

“...But when moral, as well as natural philosophy, came [in the Christian era] to be taught only as subservient to theology, the duties of human life were treated of as chiefly subservient to the happiness of a life to come. In the ancient philosophy, the perfection of virtue was represented as necessarily productive to the person who possessed it, of the most perfect happiness in this life. In the modern philosophy it was frequently represented as generally, or almost always, inconsistent with any degree of happiness in this life; and heaven was to be earned only by the penance and mortification of the monk; not by the liberal, generous, and spirited conduct of a man. Casuistry and an ascetic morality made up, in most cases, the greater part of the moral philosophy of the schools. By far the most important of all the different branches of philosophy became in this manner by far the most corrupted...”

(The Wealth of Nations) (119)

WILLIAM BLAKE:

A poet and artist of outstanding originality, Blake’s philosophy was also influenced to some extent by the ideas of Emanuel Swedenborg, Jacob Bohme the great German mystic, and Hinduism. In the following account of a private discussion, his Monism is laid bare:

...As I had for many years been familiar with the idea that an eternity a parte post was inconceivable without an eternity a parte ante, I was naturally led to express that thought on this occasion. His eyes brightened on my saying this. He eagerly assented: “To be sure. We are all coexistent with God; members of the divine body, and partakers of the divine nature.” Blake's having adopted this Platonic idea led me on our tete-a-tete walk home at night to put the popular question to him, concerning the imputed Divinity of Jesus Christ. He answered: “He is the only God:” - but then added - “And so am I and so are you.”...

(From Crabb Robinson's Reminiscences) (69)

and again in his poetry:

*...Awake! awake O sleeper of the land of shadows, wake!
expand!
I am in you and you in me, mutual in love divine:
Fibres of love from man to man...*

*...I am not a God far off, I am a brother and a friend:
Within your bosoms I reside, and you reside in me:
Lo! we are One...*

(from Jerusalem)

But Blake also understood the dual nature of the Absolute - the Yin and Yang principles inherent in the Tiger and the Lamb both being contained within the same ultimate Reality:

*Tyger! Tyger! burning bright
In the forests of the night,
What immortal hand or eye*

Could frame thy fearful symmetry?..

*...When the stars threw down their spears
And watered heaven with their tears,
Did he smile his work to see?
Did he who made the Lamb make thee?*

(from *The Tyger*)

WOLFGANG VON GOETHE:

One of the giants of Western culture, Goethe also did original work (that is still being studied today) in several areas of science. In philosophy and religion he was influenced by Spinoza and Bruno. Like Bruno he held that we know God only through Nature, which he saw as an emanation of God:

“...To discuss God apart from Nature is both difficult and perilous; it is as if we separated the soul from the body. We know the soul only through the medium of the body, and God only through Nature. Hence the absurdity, as it appears to me, of accusing those of absurdity who philosophically have united God with the world. For everything which exists, necessarily pertains to the essence of God, because God is the one Being whose existence includes all things. Nor does the Holy Scripture contradict this, although we differently interpret its dogmas each according to his views. All antiquity thought in the same way; an unanimity which to me has great significance. To me the judgment of so many men speaks highly for the rationality of the doctrine of emanation...”

(quoted in *The Life and Works of Goethe*) (80)

...Though no orthodox believer, Goethe was by no means the pure pagan the 19th century critics liked to imagine. Spinoza's pantheism certainly struck a sympathetic chord, for the Deist idea of a God who, having created the world, then left it to revolve, was repugnant to him. But he was and remained a grateful heir of the Christian tradition - bibelfest, rooted in the Bible - as his language constantly proclaims. And it was from this centre that he extended sympathetic understanding to all other religions, seeking their common ground without destroying their individual excellences, seeing them as different manifestations of an Ur, or archetypal, religion and thus giving expression, in this field as elsewhere, to the essentially morphological temper of his mind. “Panentheism” has been proposed as a more exact term for his belief in a divinity at once immanent and transcendent, and he rebuked those who tried to confine him to one mode of thought by saying that as a poet he was polytheist, as scientist pantheist, and that when, as a moral being, he had need of a personal God, “that too had been taken care of.” This was one of the meanings he attached to the biblical text: “In my Father's House are many mansions”....

(*Encyclopedia Britannica*; 15th edition)

Nietzsche was a great admirer of Goethe and considered him as an exemplar for his "ubermensch":

*Goethe...a grand attempt to overcome the eighteenth century through a return to Nature, through a going-up to the naturalness of the Renaissance, a kind of self-overcoming on the part of that century...He did not sever himself from life, he placed himself within it...and took as much as possible upon himself, above himself, within himself. What he aspired to was **totality**; he strove against the separation of reason, sensibility, emotion, will...; he disciplined himself to a whole, he **created** himself... Goethe conceived of a strong, highly cultured human being who, keeping himself in check and having reverence for himself, dares to allow himself the whole compass and wealth of naturalness, who is strong enough for this freedom; a man of tolerance, not out of weakness but out of strength, because he knows how to employ to his advantage what would destroy an average nature; a man to whom nothing is forbidden, except it be **weakness**, whether that weakness be called vice or virtue... A spirit thus **emancipated** stands in the middle of the universe with a joyful and trusting fatalism, in the **faith** that only what is separate and individual may be rejected, that in the totality everything is redeemed and affirmed — he no longer denies... But such a faith is the highest of all possible faiths: I have baptised it with the name **Dionysus**...*

This concept will be dealt with more generally in “*On Bridging the Is-Ought Gap*” within the Commentary.

WILLIAM WORDSWORTH:

Wordsworth, Coleridge and Shelley were all influenced by the ideas of Spinoza; in Wordsworth’s work, there is evidence of his deep mysticism:

...From what he tells us... both in “The Prelude” and in “Tintern Abbey”, it is clear that as a boy he had often enjoyed a “mystical” experience when he was alone with Nature, an experience in which he was “laid asleep in body” and became a “living soul”, moments when he became a conscious part of another, greater and more eternal world - in other words, moments when he had “visions.” “Many times”, he once told an old friend, “while going to school have I grasped at a wall or tree to recall myself from this abyss of idealism to the reality...”

(Coleridge and The Wordsworths) (2)

In arguably his greatest work, *The Prelude*, he writes of:

*...one interior life
In which all beings live with God, themselves
Are God, existing in the mighty whole...

...Wisdom and spirit of the universe!
Thou Soul that art the eternity of thought,
That givest to forms and images a breath
And everlasting motion, not in vain
By day or star-light thus from my first dawn
Of childhood didst thou intertwine for me
The passions that build up our human soul;
Not with the mean and vulgar works of Man,
But with the high objects, with enduring things -
With life and Nature - purifying thus
The elements of feeling and of thought...*

And his superb imagery from *Tintern Abbey* is well worth reiterating:

*...And I have felt
A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean and the living air,
And the blue sky, and in the mind of man:
A motion and a spirit, that impels
All thinking things, all objects of all thought,
And rolls through all things...*

SAMUEL TAYLOR COLERIDGE:

From *Frost at Midnight*:

*The Frost performs its secret ministry,
Unhelped by any wind. The owl's cry
Came loud - and hark, again! loud as before.
The inmates of my cottage, all at rest,
Have left me to that solitude, which suits
Abstruser musings: save that at my side
My cradled infant slumbers peacefully.*

*'Tis calm indeed! so calm, that it disturbs
 And vexes meditation with its strange
 And extreme silentness. Sea, hill, and wood,
 This populous village! Sea, and hill, and wood,
 With all the numberless goings-on of life,
 Inaudible as dreams! the thin blue flame
 Lies on my low burnt fire, and quivers not;
 Only that film, which fluttered on the grate,
 Still flutters there, the sole unquiet thing.
 Methinks, its motion in this hush of Nature
 Gives it dim sympathies with me who live,
 Making it a companionable form,
 Whose puny flaps and freaks the idling Spirit
 By its own mood interprets, every where
 Echo or mirror seeking of itself,
 And makes a toy of Thought...*

*...Dear babe, that sleepest cradled by my side,
 Whose gentle breathings, heard in this deep calm,
 Fill up the intersperse'd vacancies
 And momentary pauses of the thought!
 My babe so beautiful! It thrills my heart
 With tender gladness thus to look at thee,
 To think that thou shalt learn far other lore,
 And in far other scenes! For I was reared
 In the great city, pent 'mid cloisters dim,
 And saw nought lovely but the sky and stars.
 But **thou**, my babe! shalt wander like a breeze*

*By lakes and sandy shores, beneath the crags
 Of ancient mountain, and beneath the clouds,
 Which image in their bulk both lakes and shores
 And mountain crags: so shalt thou see and hear
 The lovely shapes and sounds intelligible
 Of that eternal language which thy God
 Utters, who from eternity doth teach
 Himself in all, and all things in himself.
 Great universal Teacher! he shall mould
 Thy spirit, and by giving make it ask.*

*Therefore all seasons shall be sweet to thee,
 Whether the summer clothe the general earth
 With greenness, or the redbreast sit and sing
 Betwixt the tufts of snow on the bare branch
 Of mossy apple-tree, while the nigh thatch
 Smokes in the sun-thaw; whether the eave-drops fall
 Heard only in the trances of the blast,
 Or if the secret ministry of frost
 Shall hang them up in silent icicles,
 Quietly shining to the quiet moon...*

PERCY BYSSHE SHELLEY:

Shelley blended Atheism with Pantheism and Platonic mysticism. He rejected the concept of a transcendent

deity, yet maintained that of a universal Soul immanent in Nature. In his essay *The Necessity of Atheism*, for the writing of which he was expelled from Oxford University and which was a response to his discovery of Spinoza, he writes:

...There is no God...

...This negation must be understood to affect a creative deity. The hypothesis of a pervading Spirit coeternal with the Universe remains unshaken...

In the following extract from *Adonais*, written in memory of his friend and fellow poet Keats, he refers to a kind of immortality which is in harmony with this Platonic philosophy:

*...He is made one with Nature: there is heard
His voice in all her music, from the moan
Of thunder, to the song of night's sweet bird;
He is a presence to be felt and known
In darkness and in light, from herb and stone,
Spreading itself where'er that Power may move
Which has withdrawn his being to its own;
Which wields the word with never-wearied love,
Sustains it from beneath, and kindles it above.*

*He is portion of the loveliness
Which once he made more lovely: he doth bear
His part, while the one Spirit's plastic stress
Sweeps through the dull dense world, compelling there
All new successions to the forms they wear;
Torturing th' unwilling dross that checks its flight
To its own likeness, as each mass may bear;
And bursting in its beauty and its might
From trees and beasts and men into Heaven's light...*

and later:

*...The One remains, the many change and pass;
Heaven's light forever shines, Earth's shadows fly;
Life, like a dome of many-coloured glass,
Stains the white radiance of Eternity,
Until Death tramples it to fragments. - Die,
If thou wouldst be with that which thou dost seek!...*

*...That Light whose smile kindles the Universe,
That Beauty in which all things work and move,
That Benediction which the eclipsing Curse
Of birth can quench not, that sustaining Love
Which through the web of being blindly wove
By man and beast and air and sea,
Burns bright or dim, as each are mirrors of
The fire for which all thirst; now beams on me,
Consuming the last clouds of cold mortality.*

*The breath whose might I have invoked in song
Descends on me; my spirit's barque is driven,
Far from the shore, far from the trembling throng,
Whose sails were never to the tempest given;
The massy Earth and sphere'd skies are riven!
I am borne darkly, fearfully, afar;
Whilst, burning through the inmost veil of Heaven,
The soul of Adonais, like a star,*

Beacons from the abode where the Eternal are.

LORD BYRON:

Although he was a notorious libertine, Byron also expressed within his poetry a feeling of union with the Spirit of Nature:

*...I live not in myself, but I become
Portion of that around me; and to me
High mountains are a feeling, but the hum
Of human cities torture: I can see
Nothing to loathe in Nature, save to be
A link reluctant in a fleshly chain,
Class'd among creatures, when the soul can flee,
And with the sky, the peak, the heaving plain
Of ocean, or the stars, mingle, and not in vain.

And thus I am absorb'd, and this is life:
I look upon the peopled desert past,
As on a place of agony and strife,
Where, for some sin, to sorrow I was cast,
To act and suffer, but remount at last
With a fresh pinion; which I feel to spring
Though young, yet waxing vigorous as the blast
Which it would cope with, on delighted wing,
Spurning the clay-cold bonds which round our being cling.*

*And when at length, the mind shall all be free
From what it hates in this degraded form,
Reft of its carnal life, save what shall be
Existent happier in the fly and worm, -
When elements to elements conform,
And dust is as it should be, shall I not
Feel all I see, less dazzling, but more warm?
The bodiless thought? the Spirit of each spot?
Of which, even now, I share at times the immortal lot?*

*Are not the mountains, waves, and skies, a part
Of me and of my soul, as I of them?
Is not the love of these deep in my heart
With a pure passion? should I not contemn
All objects, if compared with these? and stem
A tide of suffering, rather than forego
Such feelings for the hard and worldly phlegm
Of those whose eyes are only turn'd below
Gazing upon the ground, with thoughts which dare not glow?...*

*...All Heaven and Earth are still - though not in sleep,
But breathless, as we grow when feeling most;
And silent, as we stand in thoughts too deep: -
All Heaven and Earth are still: From the high host
Of stars, to the lull'd lake and mountain-coast,
All is concenter'd in a life intense,
Where not a beam, nor air, nor leaf is lost,
But hath a heart of being, and a sense*

Of that which is of all Creator and defence.

*Then stirs the feeling infinite, so felt
In solitude, where we are **least** alone;
A truth, which through our being then doth melt,
And purifies from self; it is a tone,
The soul and source of music, which makes known
Eternal harmony, and sheds a charm
Like to the fabled Cytherea's zone,
Binding all things with beauty; - 'twould disarm
The spectre Death, had he substantial power to harm.*

*Not vainly did the early Persian make
His altar the high places, and the peak
Of earthly o'ergazing mountains, and thus take
A fit and unwall'd temple, there to seek
The Spirit, in whose honour shrines are weak,
Uprear'd of human hands. Come, and compare
Columns and idol-dwellings, Goth or Greek,
With Nature's realms of worship, earth and air,
Nor fix on fond abodes to circumscribe thy pray'r!...*

(from Childe Harold's Pilgrimage) (24)

ALFRED LORD TENNYSON:

The poet Tennyson was also influenced by Pantheism and Mysticism. He writes in *The Higher Pantheism*:

*THE SUN, the moon, the stars, the seas, the hills and the plains—
Are not these, O Soul, the Vision of Him who reigns?*

*Is not the Vision He? tho' He be not that which He seems?
Dreams are true while they last, and do we not live in dreams?*

*Earth, these solid stars, this weight of body and limb, 5
Are they not sign and symbol of thy division from Him?*

*Dark is the world to thee: thyself art the reason why;
For is He not all but thou, that hast power to feel 'I am I'?*

*Glory about thee, without thee; and thou fulfillest thy doom, 10
Making Him broken gleams, and a stifled splendour and gloom.*

*Speak to Him thou for He hears, and Spirit with Spirit can meet—
Closer is He than breathing, and nearer than hands and feet.*

*God is law, say the wise; O Soul, and let us rejoice,
For if He thunder by law the thunder is yet His voice.*

*Law is God, say some: no God at all, says the fool; 15
For all we have power to see is a straight staff bent in a pool;*

*And the ear of man cannot hear, and the eye of man cannot see;
But if we could see and hear, this Vision—were it not He?*

RALPH WALDO EMERSON:

Emerson, Thoreau, Margaret Fuller and others were members of the society known as the Transcendentalists, a group of exceptional thinkers of the early 19th century who advocated the rejection of Christian doctrine and the search for knowledge of the Deity by reason. In the following poem, he acknowledges his debt to Vedanta:

BRAHMA

*If the red slayer think he slays,
Or if the slain think he is slain,
They know not well the subtle ways
I keep, and pass, and turn again.*

*Far or forgot to me is near;
Shadow and sunlight are the same;
The vanished gods to me appear;
And one to me are shame and fame.*

*They reckon ill who leave me out;
When me they fly, I am the wings;
I am the doubter and the doubt,
And I the hymn the Brahmin sings.*

*The strong gods pine for my abode,
And pine in vain the sacred Seven;
But thou, meek lover of the good!
Find me, and turn thy back on Heaven.*

In addition to Eastern philosophy, the Transcendentalists were strongly influenced by the Western philosophy of the Platonic, Pythagorean and Stoic traditions. This is shown in Emerson's concept of the Absolute, outlined in one of his major essays, *The Over-Soul*:

...The Supreme Critic on the errors of the past and the present, and the only prophet of that which must be, is that great Nature in which we rest as the Earth lies in the soft arms of the atmosphere; that Unity, that Over-Soul, within which every man's particular being is contained and made one with all other; that common heart of which all sincere conversation is the worship, to which all right action is submission; that overpowering reality which confutes our tricks and talents, and constrains everyone to pass for what he is, and to speak from his character and not from his tongue, and which evermore tends to pass into our thought and hand and become wisdom and virtue and power and beauty. We live in succession, in division, in parts, in particles. Meantime within man is the soul of the whole; the wise silence; the universal beauty, to which every part and particle is equally related; the eternal ONE. And this deep power in which we exist and whose beatitude is all accessible to us, is not only self-sufficing and perfect in every hour, but the act of seeing and the thing seen, the seer and the spectacle, the subject and the object, are one. We see the world piece by piece, as the Sun, the Moon, the animal, the tree; but the whole, of which these are the shining parts, is the soul. Only by the vision of that Wisdom can the horoscope of the ages be read, and by falling back on our better thoughts, by yielding to the spirit of prophecy which is innate in every man, we can know what it saith...

...The soul gives itself, alone, original and pure, to the Lonely, Original and Pure, who, on that condition, gladly inhabits, leads and speaks through it. Then is it glad, young and nimble. It is not wise, but it sees through all things. It is not called religious, but it is innocent. It calls the light its own, and feels that the grass grows and the stone falls by a law inferior to, and dependent on, its nature. Behold, it saith, I am born into the great, the universal mind. I, the imperfect, adore my own Perfect. I am somehow receptive of the great soul, and thereby I do overlook the Sun and the stars

and feel them to be fair accidents which change and pass. More and more the surges of everlasting Nature enter into me, and I become public and human in my regards and actions. So come I to live in thoughts and act with energies which are immortal. Thus revering the soul, and learning, as the ancient said, that "its beauty is immense," man will come to see that the world is the perennial miracle which the soul worketh, and be less astonished at particular wonders; he will learn that there is no profane history; that all history is sacred; that the Universe is represented in an atom, in a moment of time. He will weave no longer a spotted life of shreds and patches, but he will live with a divine unity. He will cease from what is base and frivolous in his life and be content with all places and with any service he can render. He will calmly front the morrow in the negligency of that trust which carries God with it and so hath already the whole future in the bottom of the heart.

(The Over-Soul) (63)

HENRY DAVID THOREAU:

Classical and Eastern philosophy also strongly influenced another Transcendentalist, Thoreau. His splendid essay *Walden* was highly influential when published in the 19th century, and remains so today:

...Shams and delusions are esteemed for soundest truths, while reality is fabulous. If men would steadily observe realities only, and not allow themselves to be deluded, life to compare it with such things as we know, would be like a fairy tale and the Arabian Nights Entertainments. If we respected only what is inevitable and has a right to be, music and poetry would resound along the streets. When we are unhurried and wise, we perceive that only great and worthy things have any permanent and absolute existence - that petty fears and petty pleasures are but the shadow of the reality. This is always exhilarating and sublime. By closing the eyes and slumbering, and consenting to be deceived by shows, men establish and confirm their daily life of routine and habit everywhere, which is still built on purely illusory foundations. Children, who play life, discern its true law and relations more clearly than men, who fail to live it worthily, but who think that they are wiser by experience, that is, by failure. I have read in a Hindu book that "there was a king's son, who, being expelled in infancy from his native city, was brought up by a forester, and, growing up to maturity in that state, imagined himself to belong to the barbarous race with which he lived. One of the father's ministers, having discovered him, revealed to him what he was, and the misconception of his character was removed, and he knew himself to be a prince. So soul," continues the Hindu philosopher, "from the circumstances in which it is placed, mistakes its own character, until the truth is revealed to it by some holy teacher, and then it knows itself to be Brahme"...

...Men esteem truth remote, in the outskirts of the system, behind the farthest star, before Adam and after the last man. In eternity there is indeed something true and sublime. But all these times and places and occasions are now and here. God himself culminates in the present moment, and will never be more divine in the lapse of all the ages. And we are enabled to apprehend at all what is sublime and noble only by the perpetual instilling and drenching of the reality that surrounds us...

(from Walden) (32)

THOMAS CARLYLE:

Carlyle was writer, polymath, and friend of John Stuart Mill, Wolfgang von Goethe and Ralph Waldo Emerson. In the following extract, he has borrowed from Plato's allegory of the cave to illustrate his point on the wonder and beauty inherent in reality, which he argues has largely been lost because of the use of one-dimensional materialistic explanations:

...remember that fancy of Plato's, of a man who had grown to maturity in some dark distance, and was brought on a sudden into the upper air to see the Sun rise. What would his wonder be, his rapt astonishment at the sight we daily witness with indifference! With the free open sense of a child, yet with the ripe faculty of a man, his whole heart would be kindled by that sight, he would discern it well to be Godlike, his soul would fall down in worship before it. Now, just such a childlike greatness was in the primitive nations. The first Pagan Thinker among rude men, the first man that began to think, was precisely this child-man of Plato's. Simple, open as a child, yet with the depth and strength

of a man. Nature as yet had no name to him; he had not yet united under a name the infinite variety of sights, sounds, shapes and motions, which we now collectively name Universe, Nature, or the like, - and so with a name dismiss it from us. To the wild deep-hearted man all was yet new, not veiled under names and formulas; it stood naked, flashing-in on him there, beautiful, awful, unspeakable. Nature was to this man, what to the Thinker and Prophet it forever is, **preternatural**. This green flowery rock-built earth, the trees, the mountains, rivers, many-sounding seas; - that great deep sea of azure that swims overhead; the winds sweeping through it; the black cloud fashioning itself together, now pouring out fire, now hail and rain; what is it? Ay, what? At bottom we do not know; we can never know at all. It is not by our superior insight that we escape the difficulty; it is by our superior levity, our inattention, our want of insight. It is by not thinking that we cease to wonder at it. Hardened round us, encasing every notion we form, is a wrappage of traditions, hearsays, mere words. We call that fire of the black thundercloud electricity, and lecture learnedly about it, and grind the like out of it with glass and silk: but what is it? What made it? Whence comes it? Whither goes it? Science has done much for us; but it is a poor science that would hide from us the deep sacred infinitude of Nescience, whither we can never penetrate, on which all science swims as a mere superficial film. This world, after all our science and sciences, is still a miracle; wonderful, inscrutable, **magical** and more, to whosoever will think of it.

That great mystery of TIME, were there no other: the illimitable, silent, never-resting thing called Time, rolling, rushing on, swift, silent, like an all-embracing ocean-tide, on which we and all the Universe swim like exhalations, like apparitions which are, and then are not: This Universe, ah me - what could the wild man know of it; what can we yet know? That it is a Force, and thousandfold Complexity of Forces; a Force which is not we. That is all; it is **not** we, it is altogether different from us. Force, Force, everywhere Force; we ourselves a mysterious Force in the centre of that...

...What in such a time as ours it requires a Prophet or Poet to teach us, namely, the stripping-off of those poor undevout wrappings, nomenclatures and scientific hearsays, - this, the ancient earnest soul, as yet unencumbered with these things, did for itself. The world, which is now divine only to the gifted, was then divine to whosoever would turn his eye upon it. He stood bare before it face to face. All was Godlike or God: - Jean Paul [the pseudonym of the German novelist Johann Paul Friedrich Richter] still finds it so; the giant Jean Paul, who has power to escape out of hearsays: but then there were no hearsays. Canopus shining-down over the desert, with its blue diamond brightness (that wild blue spirit-like brightness, far brighter than we ever witness here), would pierce into the heart of the wild Ishmaelitic man, whom it was guiding through the solitary waste there. To his wild heart, with all feelings in it, with no speech for any feeling, it may seem like a little eye, that Canopus, glancing out on him from the great deep Eternity; revealing the inner Splendour to him. Cannot we understand how these men worshipped Canopus; became what we call Sabeans, worshipping the stars? Such is to me the Secret of all forms of Paganism. Worship is transcendent wonder; wonder for which there is now no limit or measure; that is worship. To these primeval men, all things and everything they saw exist beside them were an emblem of the Godlike, of some God.

And look what perennial fibre of truth was in that. To us also, through every star, through every blade of grass, is not God made visible, if we will open our minds and eyes? We do not worship in that way now: but it is reckoned still a merit, proof of what we call a poetic nature, that we recognise how every object has a divine beauty in it; how every object still verily is "a window through which we may look into Infinitude itself"? He that can discern the loveliness of things, we call him Poet, Painter, Man of Genius, gifted, lovable. These poor Sabeans did even what he does, - in their own fashion. That they did it, in what fashion soever, was a merit: better than what the entirely stupid man did, what the horse and camel did, - namely, nothing!

But now if all things whatsoever that we look upon are emblems to us of the Highest God, I add that more so than any of them is Man such an emblem... The essence of our being, the mystery in us that calls itself "I," - ah, what words have we for such things?... The Highest being reveals himself in Man.

(On Heroes, Hero-Worship and the Heroic in History) (79)

LOUIS PASTEUR:

Pasteur is one who recognized the importance of the Ur religion and its hidden survival within the heart of the European language tradition:

...I see everywhere in the world the inevitable expression of the concept of infinity. It establishes in the depths of our hearts a belief in the supernatural. The idea of God is nothing more than one form of the idea of infinity. So long as the mystery of the infinite weighs on the human mind, so long will temples be raised to the cult of Brahma, Allah, Jehovah or Jesus... The Greeks understood the mysterious power of the hidden side of things. They bequeathed us one of the most beautiful words in our language - the word "enthusiasm" - en theos - a god within. The grandeur of human actions is measured by the inspiration from which they spring. Happy is he who bears a god within - an ideal of beauty and who obeys it, an idea of art, of science. All are lighted by reflection from the infinite.

(quoted by Arthur Koestler in *The Act of Creation*) (14)

RICHARD JEFFERIES:

In the middle of the 19th century, Jefferies achieved a considerable reputation as a writer on Nature and country life. He was a nature mystic - one who experiences a transcendental feeling of unity with Nature. In this extract from one of his works, he talks of his profound need to go beyond the theistic concepts that were in his time very dominant in Western culture:

...Three things only have been discovered of that which concerns the inner consciousness since before written history began. Three things only in twelve thousand written, or sculptured, years, and in the dumb, dim time before then. Three ideas the Cavemen primeval wrested from the unknown, the night of which is around us still in daylight - the existence of the soul, immortality, the deity. These things found, prayer followed as a sequential result. Since then nothing further has been found in all the twelve thousand years, as if men had been satisfied and had found these to suffice. They do not suffice me. I desire to advance further, and to wrest a fourth, and even still more than a fourth, from the darkness of thought. I want more ideas of soul-life. I am certain there are more yet to be found. A great life - an entire civilisation - lies just outside the pale of common thought. Cities and countries, inhabitants, intelligences, culture - an entire civilisation. Except by illustrations drawn from familiar things, there is no way of indicating a new idea. I do not mean actual cities, actual civilisation. Such life is different from any yet imagined. A nexus of ideas exists of which nothing is known - a vast system of ideas - a cosmos of thought. There is an Entity, a Soul-Entity, as yet unrecognised. These, rudely expressed, constitute my Fourth Idea. It is beyond, or beside, the three discovered by the Cavemen; it is in addition to the existence of the soul; in addition to immortality; and beyond the idea of the deity. I think there is something more than existence.

There is an immense ocean over which the mind can sail, upon which the vessel of thought has not yet been launched. I hope to launch it. The mind of so many thousand years has worked round and round inside the circle of these three ideas as a boat on an inland lake. Let us haul over the belt of land, launch on the ocean, and sail outwards...

...The original three ideas of the Cavemen became encumbered with superstition; ritual grew up, and ceremony, and long ranks of souls were painted on papyri waiting to be weighed in the scales, and to be punished or rewarded. These cobwebs grotesque have sullied the original discoveries and cast them into discredit. Erase them altogether, and consider the underlying principles. The principles do not go far enough, but I shall not discard all of them for that. Even supposing the pure principles to be illusions, and annihilation the end, even then it is better - it is something gained to have thought them. Thought is life; to have thought them is to have lived them. Accepting two of them as true in principle, then I say that these are but the threshold. These are but the primer of soul-life; the merest hieroglyphics chipped out, a little shape given to the unknown...

Not tomorrow but today. Not the tomorrow of the tumulus, the hour of sunshine now. This moment give me to live soul-life, not only after death. Now is eternity, now I am in the midst of immortality; now the supernatural crowds around me. Open my mind, give my soul to see, let me live it now on Earth, while I hear the burring of the larger bees, the sweet air in the grass, and watch the yellow wheat wave beneath me. Sun and earth and sea, night and day – these are the least of things. Give me soul-life..

...There is an existence, a something higher than soul - higher, better, and more perfect than deity. Earnestly I pray to find this something better than a god. There is something superior, higher, more good. For this I search, labour, think, and pray. If after all there be nothing, and my soul has to go out like a flame, yet even then I have thought this while it lives. With the whole force of my existence, with the whole force of my thought, mind, and soul, I pray to find this Highest Soul, this greater than deity, this better than god. Give me to live the deepest soul-life now and always with this Soul. For want of words I write soul, but I think that it is something beyond soul...

(quoted in *Mysticism* by F.C.Happold) (49)

ARTHUR SCHOPENHAUER:

Schopenhauer's childhood was rich in philosophical discourse, with some of the foremost German thinkers of his day, including Goethe, visiting his family home. On discovering a translation of the Upanishads at the age of twenty-five, he declared that any philosophy not in accord with their tenets was unacceptable, and that Sanskrit literature would be as influential for our time as Greek literature was for the Renaissance.

He agreed with Kant that the fundamental ground of reality (Kant's noumenal world), is not caught within our apparent reality (the phenomenal world). He sees the *Noumenon* revealed in islands of consciousness, which are expressions of a *Will to Exist*. Reality was thus a vast "archipelago" of these islands, each exerting its own will in competition with others, not able to grasp their fundamental oneness. T.L.S. Sprigge writes of the obvious overlap with Eastern religion in this regard:

...One need know little of Vedanta Hinduism and Buddhism to realise that there is much in common between them and Schopenhauer's thought. Schopenhauer was fully aware of this, and delighted in the fact. European knowledge of, and translations from, the Scriptures of these religions was only just beginning in Schopenhauer's day - a disciple of Schopenhauer's, Deussen, being pre-eminent in this field. It seems clear, however, that Schopenhauer arrived at his own viewpoint from his own personal thought and experience, and building on the quite un-Eastern thought of Kant, before he came to know anything of Eastern religion - a fact which strengthens rather than weakens the case for such an interpretation of the world...

Although he admired the insights of the Indian mystics, Schopenhauer did not endorse Hinduism or Buddhism as religions. Stephen Batchelor writes:

...While Schopenhauer found inspiration in Indian and Buddhist sources, his notebooks show that he had already established the main outlines of his philosophy by the time he had encountered the [Upanishads]. In the second volume of his major work, having conceded to Buddhism "pre-eminence" over all other religions, he remarks:

"In any case it must be a pleasure to me to see my doctrine in such close agreement with a religion that the majority of men on Earth hold as their own...And this agreement must be yet the more pleasing to me, inasmuch as in my philosophising I have certainly not been under its influence..."

...He believed that humankind was "growing out of religion as out of its childhood clothes." Although such institutions were "necessary for the people and of inestimable benefit to them," to require a Shakespeare or a Goethe (or a Schopenhauer) to believe in them would be like asking "a giant to put on the shoes of a dwarf..."

... "Our existence," he says, "resembles the course of a man running down a mountain who would fall over if he tried to stop, and can stay on his feet only by running on." In such a transient, unstable

world “happiness is not so much as to be thought of”...

...In brief, his improved version of Kantian thought asserted that the fundamental stuff of life is a blind and aimless energy that he termed “Will.” The Will, as the noumenal “thing in itself,” was unknowable. All that could be known were the phenomena whose form the Will experienced within experience. Such phenomena were necessarily represented within the dualistic framework of subject and object. Moreover, time and space were in-built structures of human consciousness... Not realising this, people succumbed to the innate but deluded realism that drove them to achieve unattainable goals, such as happiness in this world. [He] believed that the purposeless striving of the Will could, however, be suspended through contemplation of music and art and ultimately be transcended through mystical intuition. “It goes without saying,” he concluded, “that which at present produces the phenomenon of the world must be capable of not doing so and consequently remaining inactive... And this will be in its essence identical with the... Nirvana of the Buddhists...”

(*The Awakening of the West*) (84)

FRIEDRICH NIETZSCHE:

As with the other sources mentioned in this work, there are concepts within Nietzsche's writings that are faulty, others that give pause for reflection, and many that are profound. His early philosophy was strongly influenced by that of Schopenhauer, but he developed to be much more life affirming. His ideas are quite esoteric, and cannot be reconstructed from his writings alone. They are largely in the form of aphorisms and allegory. He deliberately writes in such a way as to be unintelligible to the exoteric reader:

...It is hard to be understood... - I am certainly doing everything I can to be hard to understand myself!

...

Nietzsche was a prime example of Emerson’s maxim that “to be great is to be misunderstood.” Many people, especially within Anglo-Saxon cultures, condemned his philosophy after the Nazis briefly misused it prior to World War II:

...Nietzsche was naturally immune to the contagion of populism. His model aristocrat Zarathustra is such because he is truly and solely himself and aloof from collective enthusiasms. It was the mistake of Hitler and his intellectual aides to include Nietzsche among the early prophets of their social and racial dogmas. They soon found that he did not suit the role - quite the opposite - and within a short time he was quietly cast aside.

The book to read is **What Nietzsche Means** by George Allen Morgan.

(*From Dawn to Decadence*) (108)

Why did he write in this way? He briefly touches on this towards the end of his writing career. He sees himself as an *esoteric*:

...Our supreme insights must - and should! - sound like follies, in certain cases like crimes, when they come impermissibly to the ears of those who are not predisposed and predestined for them. The exoteric and esoteric as philosophers formerly distinguished them...differ one from another not so much that the exoteric stands outside and sees, evaluates, measures, judges from the outside, not from the inside: what is more essential is that this class sees things from below - but the esoteric sees them from above...

(*Beyond Good and Evil*) (82)

The metaphors of seeing from within (i.e. identifying with the object) or above (from the point of view of the Whole) refer to mystical, unified views of reality.

To understand any philosophy, it is arguable that its “roots” are as important as its “branches.” This has never been truer than with Nietzsche. If a single work can be considered the core of Nietzsche’s philosophy, it is *The Birth of Tragedy*, which studied the principles of the ancient Greek tragedians. The thesis of the work is that the greatness of the ancient Greeks lay in their synthesis of the elements of the Dionysian and the Apollonian, of passion and reason.

His ideas are firmly rooted within the perennial philosophy. The basis of his philosophy has elements in common with those of both Schopenhauer (who was in turn in accord with Vedanta and Buddhism) and Emerson. Other influences were Heraclitus, Goethe, Socrates, and Spinoza. In his work he writes, “*When I speak of Plato, Pascal, Spinoza, and Goethe, then I know that their blood rolls in mine,*” and at another point: “*My ancestors: Heraclitus, Empedocles, Spinoza, Goethe.*” He writes of Spinoza:

...I am utterly amazed, utterly enchanted. I have a precursor! I hardly knew Spinoza: that I should have turned to him just now, was inspired by “instinct.” Not only is his overall tendency like mine - making knowledge the most powerful affect - but in five main points of doctrine I recognise myself; this most unusual and loneliest thinker is closest to me precisely in these matters: he denies the freedom of the will, teleology, the moral world order, the unegoistic, and evil. Even though the divergences are admittedly tremendous, they are more due to the differences in time, culture and science. In summa: my lonesomeness, which, as on very high mountains, often made it hard for me to breathe and made my blood rush out, is now at least a twosomeness. Strange...

(The Portable Nietzsche) (66)

Nietzsche took his philosophy further than that of his teachers. If the God of Moses would say, “*I am that I am,*” the Absolute of Nietzsche would put it: “*I Create [in order] that I create*”. Nietzsche contended that our knowledge of unity within the Absolute means that we must recognise that we are our own Creator, are responsible for ourselves, and no transcendent anthropomorphic “God” can be called on for our salvation. Here it is appropriate to paraphrase Shelley to explain the essence of Nietzsche's concept of the Absolute.

There is no God...

...This negation must be understood to affect a transcendent deity.

The hypothesis of a pervading Spirit immanent in the Universe remains unshaken...

As mentioned, Shelley wrote his essay “*The Necessity of Atheism*” after being profoundly influenced by the philosophy of Spinoza. Significantly, Spinoza was on the one hand denounced by some of his critics as being “God intoxicated”, and yet by others as being an atheist! One can see how each group came to its conclusion, but it is quite an amazing reflection on the vastness of Reality, and hence crucial in terms of coming to understand Shelley, Spinoza, Nietzsche and Einstein.

Nietzsche's *Will to Power* is arguably better expressed as the *Will to Create*, to discover, to go further, within the context of overcoming the self to realise *Self*. So he writes in *Thus Spoke Zarathustra*:

...And life itself confided this secret to me: “behold,” it said, “I am that which must always overcome itself. Indeed, you call it a will to procreate or a drive to an end, to something higher, farther, more manifold: but all this is one... Rather would I perish than forswear this; and verily, where there is perishing... there life sacrifices itself - for more power... Whatever I create and however much I love it - soon I must oppose it and my love;... will to existence: that will does not exist... not will to life but... will to power. There is much that life esteems more highly than life itself.”

(Thus spoke Zarathustra) (68)

Nietzsche thus emphasised the “third dimension” of the perennial philosophy: that it is incumbent on each of us to reach toward an ideal “*übermensch,*” which is best translated into English as “*overman,*” or an entity far beyond the average human being. As examples of those attaining towards this entity, Nietzsche would cite persons such as Socrates, Goethe, a Polynesian explorer of the South Pacific, or an Indian Arhat: People who combined great spiritual power and intellectual or physical prowess and endeavour.

As with Plato, Nietzsche's enlightened man seeks to use his knowledge for the betterment of Man. In fact, Nietzsche uses imagery very much akin to that of Plato, particularly in the use of the Sun to represent the Absolute. This is no coincidence:

When Zarathustra was thirty years old he left his home and the lake of his home and went into the mountains. Here he enjoyed his spirit and his solitude, and for ten years did not tire of it. But at last a change came over his heart, and one morning he rose with the dawn, stepped before the Sun, and spoke to it thus:

“...You Great Star, what would your happiness be had you not those for whom you shine?”

“For ten years you have climbed to my cave: you would have tired of your light and of the journey had it not been for me and my eagle and my serpent.

“But we waited for you every morning, took your overflow from you, and blessed you for it.

“Behold, I am weary of my wisdom, like a bee that has gathered too much honey; I need hands outstretched to receive it.

“I would give away and distribute, until the wise among men find joy once again in their folly, and the poor in their riches.

“For that I must descend to the depths, as you do in the evening when you go behind the sea and still bring light to the underworld, you over-rich star.

“Like you, I must go under - go down, as is said by man, to whom I want to descend.

“So bless me then, you quiet eye that can look upon an all-too-great happiness without envy!

“Bless the cup that wants to overflow, that the water may flow from it golden and carry everywhere the reflection of your delight.

“Behold, this cup wants to become empty again, and Zarathustra wants to become man again....”

...When Zarathustra came into the next town, which lies on the edge of a forest, he found many people gathered together in the market place; for it had been promised that there would be a tightrope walker. And Zarathustra spoke thus to the people:

“I teach you the overman. Man is something that shall be overcome. What have you done to overcome him?

“All beings so far have created something beyond themselves; and do you want to be the ebb of the great flood and even go back to the beasts rather than overcome man?...You have made your way from worm to man, and much in you is still worm. Once you were apes, and even now, too, man is more ape than any ape...

Nietzsche's overman is one who has overcome the ego, mastered himself and identified totally with the Absolute. The Will to Power most of all necessitates power over the self. Man the egoistic being is something to be transcended; the change from a stream to the Ocean is the imagery used. The “going under” means the returning of the overman to overcome ignorance. The “great contempt” follows from the absolute transcendence of the petty egoistic desires of the common man. The phrase “all things are in him” refers to the expansion of the ego to embrace all things:

“...Verily, a polluted stream is man. One must be a sea to be able to receive a polluted stream without becoming unclean. Behold, I teach you the overman: he is this sea; in him your great contempt can go under...

“...Man is a rope, tied between beast and overman - a rope over an abyss. A dangerous across, a dangerous on-the-way, a dangerous looking back, a dangerous shuddering and stopping.

“What is great in man is that he is a bridge and not an end: what can be loved in man is that he is an overture and a going under.

“I love those who do not know how to live, except by going under, for they are those who cross over...

“...I love him who works and invents to build a house for the overman and to prepare earth, animal and plant for him: for thus he wants to go under...

“...I love him whose soul is overfull so that he forgets himself, and all things are in him: thus all things spell his going under...

(Thus Spake Zarathustra) (81)

Nietzsche considered this ideal person to be deeply spiritual, a great affirmer of life and living, and possessing the highest degree of areté, or virtue:

“...The world is perfect” - thus says the instinct of the most spiritual, the Yes-saying instinct; “imperfection, whatever is beneath us, distance, the pathos of distance - even the chandala still belongs to this perfection.” The most spiritual men, as the strongest, find their happiness where others would find their destruction: in the labyrinth, in hardness against themselves and others, in experiments; their joy is self-conquest; asceticism becomes in them nature, need and instinct. Difficult tasks are a privilege to them; to play with burdens which crush others, a recreation. Knowledge - a form of asceticism. They are the most venerable kind of man; that does not preclude their being the most cheerful and the kindest. They rule not because they want to but because they are; they are not free to be second...

(The Antichrist) (66)

This description is appropriate to the man or woman who meets the requirements of Plato's “Guardian,” and some of the great achievers of history and many of the unknown men and women who have struggled against adversity since time began. Epictetus the stoic, although a slave, overcame his predicament by force of character. His superiority was eventually recognised and he was freed, to become a teacher of philosophy. He was not bitter toward those who wronged him; he regarded Life as something to overcome, a forge of one's character. This is in harmony with Nietzsche's well-known maxim: *What does not kill me makes me stronger*. It is a fact that Nietzsche studied and greatly respected the Stoic ethos.

On the other hand, he was never content merely to rediscover old teachings. In Zarathustra, Nietzsche uses the metaphors of the Camel, the Lion and the Child to portray his concept of the spiritual development which he regards as necessary for each of us to undertake in Life: The spirit must first become like a camel, willingly carrying a heavy burden through the barren desert of the contemporary mythos.

...There is much that is difficult for the spirit, the strong reverent spirit that would bear much: but the difficult and the most difficult are what its strength demands...

In the next stage, the spirit must take on the nature of the lion, fearlessly discarding old values which do not pass the test of Truth, and acknowledging no masters.

...In the loneliest desert, however, the second metamorphosis occurs: here the spirit becomes a lion who would conquer his own freedom and be master in his own desert. Here he seeks out his last master: He wants to fight him and his last god; for ultimate victory he wants to fight with the great dragon.

Who is the great dragon whom the spirit will no longer call lord and god? “Thou shalt” is the name of the great dragon. But the spirit of the lion says, “I will”...

Lastly, spirit must become like a child, innocent and affirming of the Sacred Game, and in so doing, the great creator of new value systems.

...To create new values - that event the lion cannot do; but the creation of freedom for oneself for new creation - that is within the power of the lion. The creation of freedom for oneself and a sacred “No” even to duty - for that, my brothers, the lion is needed... But say, my brothers, what can the child do that even the lion could not do? Why must the preying lion still become a child? The child is innocence and a forgetting, a new beginning, a game, a self-propelled wheel, a first movement; a sacred “Yes” is needed: the spirit now wills his own will and he who had been lost to the world now conquers his own world...

Nietzsche predicted the coming of a time of nihilism, through which Mankind had ultimately to pass before either destroying itself or emerging to forge a new ethos in which the old dogmatic absolutes would be replaced by new values. Each individual would be responsible for creating his own reality and seeing that *I am, and always will be*. He would come to see that he is an integral part of the Universe, and affirm his fate, whatever that may be. In this context, it must be stated that Nietzsche suffered from extremely poor health while writing his works. The condition was probably due to syphilis, and led to insanity and eventual death at a relatively early age:

...We aeronauts of the spirit! - All those brave birds which fly out into the distance, into the farthest distance - it is certain! Somewhere or other they will be unable to go on and will perch down on a mast or a cliff-face - and they will even be thankful for this miserable accommodation! But who could venture to infer from that, that there was not an immense open space before them, that they have flown as far as one could fly! All our great teachers and predecessors have at last come to a stop... It will be the same with you and me! But what does that matter to you and me! Other birds will fly farther! This insight and faith of ours vies with them in flying up and away; it rises above our heads and above our impotence into the heights and from there surveys the distance and sees before it the flocks of birds, which, far stronger than we, still strive whither we have striven, and where everything is sea, sea, sea! - And whither then would we go? Would we cross the sea? Whither does this mighty longing draw us, this longing that is worth more to us than pleasure? Why just in this direction, thither where all the sums of humanity have hitherto gone down? Will it perhaps be said of us one day that we too, steering westward, hoped to reach an India - but that it was our fate to be wrecked against an infinity? Or, my brothers. Or?

(Daybreak) (111)

Nietzsche was, in his own words, eventually “wrecked against an infinity,” but not before he had discovered fabulous New Worlds of thought.

LEO TOLSTOY:

In his magnum opus, *War and Peace*, Tolstoy describes his vision of the mystic nature of existence, anchored in Pierre’s experience of captivity by the Napoleonic forces. The image that he employs could well be argued as being from Schopenhauer or Nietzsche:

“...Life is everything. Life is God. Everything changes and moves and that movement is God. And while there is life there is joy in consciousness of the divine. To love life is to love God. Harder and more blessed than all else is to love this life in one's sufferings, in innocent sufferings.”

“Kerataev!” came to Pierre’s mind.

And suddenly he saw vividly before him a long-forgotten, kindly old man who had given him geography lessons in Switzerland. “Wait a bit,” said the old man, and showed Pierre a globe. This globe was alive - a vibrating ball without fixed dimensions. Its whole surface consisted of drops closely pressed together, and all these drops moved and changed places, sometimes several of them merging into one, sometimes one dividing into many. Each drop tried to spread out and occupy as much space as possible, but others striving to do the same compressed it, sometimes destroyed it, and sometimes merged with it.

“That is life,” said the old teacher.

“How simple and clear it is,” thought Pierre. “How is it that I did not know it before?”

“God is in the midst, and each drop tries to expand so as to reflect him to the greatest extent. And it grows, merges, disappears from the surface, sinks to the depths, and again emerges. There now, Kerataev has spread out and disappeared. Do you understand, my child?” said the teacher...

(War and Peace) (84)

And a little later:

“...Pierre turned back, not to his companions by the campfire, but to an unharnessed cart where there was nobody. Tucking his legs under him and dropping his head he sat down on the cold ground by the wheel of the cart and remained motionless a long while sunk in thought. Suddenly he burst out into a fit of his broad, good-natured laughter, so loud that men from various sides turned with surprise to see what this strange and evidently solitary laughter could mean. “Ha-ha-ha!” laughed Pierre. And he said aloud to himself: “The soldier did not let me pass. They took me and shut me up. They hold me captive. What, me? Me? My immortal soul? Ha-ha-ha! Ha-ha-ha!...” and he laughed

till tears started to his eyes. A man got up and came to see what this queer big fellow was laughing at all by himself. Pierre stopped laughing, got up, went farther away from the inquisitive man, and looked around him. The huge, endless bivouac that had previously resounded with the crackling of campfires and the voices of many men had grown quiet, the red campfires were growing paler and dying down. High up in the light sky hung the full moon."

"Forests and fields beyond the camp, unseen before, were now visible in the distance. And farther still, beyond those forests and fields, the bright, oscillating, limitless distance lured one to itself. Pierre glanced up at the sky and the twinkling stars in its faraway depths. "And all that is me, all that is within me, and it is all I!" thought Pierre. "And they caught all that and put it into a shed boarded up with planks!" He smiled, and went and lay down to sleep beside his companions..."

(War and Peace) Kindle Edition.

ALBERT EINSTEIN:

Einstein's religious ideas were close to those of Spinoza. He once briefly described his religious views as "...what in ordinary terms one would call pantheistic." He used the term *cosmic religiousness* in order to express the transcendent wonder he felt with regard to Nature:

...Einstein was deeply religious, though in a way sufficiently subtle to recall the dictum that if one is asked, "Do you believe in God?" the answer least likely to be understood is "Yes." Einstein's answer was that he believed in "Spinoza's God, who reveals himself in the harmony of all being." For Spinoza as for Einstein, God is Nature. "What I see in Nature," Einstein wrote, "is a magnificent structure that we can comprehend only very imperfectly, and that must fill a thinking person with a feeling of humility. This is a genuinely religious feeling that has nothing to do with mysticism..."

"My religiosity," he added, "consists in a humble admiration of the infinitely superior Spirit that reveals itself in the little that we, with our weak and transitory understanding, can comprehend of reality."

*In his scientific research, he invoked the deity so frequently that Infeld joked, "Einstein uses his concept of God more often than a Catholic priest." "I want to know how God created this world," Einstein said. "I want to know his thoughts, the rest are details." Einstein felt that science could never replace God - "Knowledge of what **is** does not open the door directly to what **should be**."*

As a boy, Einstein composed little hymns to God and sang them on his way to school. As an adult, when his refusal to accept the ultimate validity of quantum physics had isolated him from the scientific mainstream, he insisted on continuing, as he put it, "to sing my solitary little old song." Its theme, he wrote his friend the physicist Max Born, was that the quantum principle, with its reliance on probability rather than strict causality, "does not really bring us any closer to the secret of the Old One"...

(Science) (84)

ARTHUR EDDINGTON:

Eddington made important contributions to the theoretical physics of the nuclear processes within stars. He was also one of the first scientific theorists to grasp the importance of relativity theory, and led the expedition which observed the solar eclipse of 1919, offering the first supporting evidence for Einstein's theory. Apart from his scientific work, he wrote extensively about its philosophical implications, and was opposed to the pure reductionism of the logical positivists:

...We have acknowledged that the entities of physics can from their very nature form only a partial aspect of the reality. How are we to deal with the other part? It cannot be said that the other part concerns us less than the physical entities. Feelings, purpose, values, make up our consciousness as much as sense impressions. We follow up the sense impressions and find that they lead into an external world discussed by science; we follow up the other elements of our being and find that they

lead not into a world of space and time, but surely somewhere. If you take the view that the whole of consciousness is reflected in the dance of electrons in the brain, so that each emotion is a separate figure of the dance, then all the features of consciousness alike lead into the external world of physics. But I assume you have followed me in rejecting this view, and that you agree that consciousness as a whole is greater than those quasi-metrical aspects of it which are abstracted to compose the physical brain...

...We have seen that the cyclic scheme of physics presupposes a background outside the scope of its investigations. In this background we must find, first, our own personality, and then perhaps, a greater personality. The idea of a universal Mind or Logos would be, I think, a fairly plausible inference from the present state of scientific theory; at least it is in harmony with it. But if so, all that our inquiry justifies us in asserting is a purely colourless pantheism. Science cannot tell whether the world-spirit is good or evil, and its halting argument for the existence of God might equally well be turned into an argument for the existence of a Devil...

*(Quoted in **Quantum Questions**) (26)*

Eddington has more to say in response to this conundrum later.

BERTRAND RUSSELL:

Russell had a great respect for minds which were able to combine mystic intuition and rational analysis. He held Spinoza's ideas in high regard:

"...Metaphysics, or the attempt to conceive the world as a whole by means of thought, has been developed, from the first, by the union and conflict of two very different human impulses, the one urging men towards mysticism, the other urging them towards science. Some men have achieved greatness through one of these impulses alone, others through the other alone: in Hume, for example, the scientific impulse reigns quite unchecked, while in Blake a strong hostility to science co-exists with profound mystic insight. But the greatest men who have been philosophers have felt the need both of science and of mysticism: the attempt to harmonise the two was what made their life, and what always must, for all its arduous uncertainty, make philosophy, to some minds, a greater thing than either science or religion..."

"...In such (individuals) we see the true union of the mystic and the man of science, the highest eminence, as I think, that it is possible to achieve in the world of thought... One of the most convincing aspects of the mystic illumination is the apparent revelation of the oneness of all things, giving rise to pantheism in religion, and to monism in philosophy."

*(Essay - **Mysticism and Logic**)*

...There is only too much reason to fear that Western civilisation, if not the whole world, is likely in the near future to go through a period of immense sorrow and suffering and pain - a period during which, if we are not careful to remember them, the things that we are attempting to preserve may be forgotten in bitterness and poverty and disorder. Courage, hope, and unshakeable conviction will be necessary if we are to emerge from the dark time spiritually undamaged. It is worthwhile, before the actual danger is upon us, to collect our thoughts, to marshal our hopes, and to plant in our hearts a firm belief in our ideals...

...I think Plotinus was right in urging contemplation of eternal things, but he was wrong in thinking of this as enough to constitute a good life. Contemplation, if it is to be wholesome and valuable, must be married to practice; it must inspire action and ennoble the aims of practical statesmanship. While it remains secluded in the cloister it is only a means of escape.

Boethius, who represents the very last blossoming of Roman civilisation, was a figure of more use to our age. After a lifetime spent in public administration and in trying to civilise a Gothic king, he fell into disfavour and was condemned to death. In prison he composed his great book, "The Consolations of Philosophy," in which, with a combination of majestic calm and sweet

reasonableness, he sets forth, as imperturbably as though he were still a powerful minister, the joys of contemplation, the delight in the beauty of the world and the hopes for mankind, which, even in that situation, did not desert him. Throughout the Dark Ages his book was studied and it transmitted to happier times the last purified legacy of the ancient world...

...No man's ego should be enclosed in granite walls; its boundaries should be translucent. The first step in wisdom, as well as in morality, is to open the windows of the ego as wide as possible. Most people find little difficulty in including their children within the compass of their desires. In slightly lesser degree they include their friends, and in time of danger their country. Very many men feel that what hurts their country hurts them. In 1940 I knew Frenchmen living prosperously in America who suffered from the fall of France almost as they would have suffered from the loss of a leg. But it is not enough to enlarge our sympathies to embrace our own country. If the world is ever to have peace it will be necessary to learn to embrace the whole human race in the same kind of sympathy which we now feel toward our compatriots. And if we are to retain calm and sanity in difficult times, it is a great help if the furniture of our minds contains past and future ages.

Few things are more purifying to our conception of values than to contemplate the gradual rise of Man from his obscure and difficult beginnings to his present eminence. Man, when he first emerged, was a rare and hunted species, not so fleet as the deer, not so nimble as the monkey, unable to defend himself against wild beasts, without the protection of warm fur against rain and cold, living precariously upon the food that he could gather, without weapons, without domestic animals, without agriculture.

The one advantage that he possessed—intelligence—gave him security. He learned the use of fire, of bows and arrows, of language, of domestic animals and, at last, of agriculture. He learned to cooperate in communities, to build great palaces and pyramids, to explore the world in all directions and, at last, to cope with disease and poverty. He studied the stars, he invented geometry, and he learned to substitute machines for muscles in necessary labour...

In the former days most children died in infancy, mortality in adult life was very high, and in every country the great majority of the population endured abject poverty. Now [we] have succeeded in preserving the lives of the overwhelming majority of infants, in lowering enormously the adult death rate, and in nearly eliminating abject poverty. Other nations, where disease and abject poverty are still the rule, could achieve the same level of well-being by adopting the same methods. There is, therefore, a new hope for mankind.

The hope cannot be realized unless the causes of present evils are understood. But it is the hope that needs to be emphasized. Modern man is master of his fate. What he suffers he suffers because he is stupid or wicked, not because it is nature's decree. Happiness is his if he adopts the means that lie ready to his hands...

...If bad times lie ahead of us, we should remember while they last the slow march of Man, chequered in the past by devastations and retrogressions, but always resuming the movement towards progress. Spinoza, who was one of the wisest of men and who lived consistently in accordance with his own wisdom, advised men to view passing events "under the aspect of eternity." Those who can learn to do this will find a painful present much more bearable than it would otherwise be. They can see it as a passing moment - a discord to be resolved, a tunnel to be traversed. The small child who has hurt himself weeps as if the world contained nothing but sorrow, because his mind is confined to the present. A man who has learned wisdom from Spinoza can see even a lifetime of suffering as a passing moment in the life of humanity. And the human race itself, from its obscure beginning to its unknown end, is only a minute episode in the life of the Universe.

What may be happening elsewhere we do not know, but it is improbable that the Universe contains

nothing better than ourselves. With increase of wisdom our thoughts acquire a wider scope both in space and in time. The child lives in the minute, the boy in the day, the instinctive man in the year. The man imbued with history lives in the epoch. Spinoza would have us live not in the minute, the day, the year or the epoch but in eternity. Those who learn to do this will find that it takes away the frantic quality of misfortune and prevents the trend to madness that comes with overwhelming disaster. He spent the last day of his life telling cheerful anecdotes to his host. He had written: "The wise man thinks less about death than about anything else," and he carried out this precept when it came to his own death.

I do not mean that the wise man will be destitute of emotion - on the contrary, he will feel friendship, benevolence, and compassion in a higher degree than the man who has not emancipated himself from personal anxieties. His ego will not be a wall between him and the rest of mankind. He will feel, like Buddha, that he cannot be completely happy while anybody is miserable. He will feel pain - a wider and more diffused pain than that of the egoist - but he will not find the pain unendurable. He will not be driven by it to invent comfortable fairy-tales which assure him that the sufferings of others are illusory. He will not lose poise and self control. Like Milton's Satan, he will say:

*"The mind is its own place, and in itself
Can make a Heav'n of Hell, a Hell of Heav'n."*

Above all, he will remember that each generation is trustee to future generations of the mental and moral treasure that man has accumulated through the ages. It is easy to forget the glory of man. When King Lear is going mad he meets Edgar, who pretends to be mad and wears only a blanket. King Lear moralises:

"Unaccommodated, man is no more but such a poor, bare, forked animal as thou art."

This is half of the truth. The other half is uttered by Hamlet:

"What a piece of work is a man! how noble in reason! how infinite in faculty! In form and moving how express and admirable! in action how like an angel! in apprehension how like a god!"...

...Every one of us can enlarge his mind, release his imagination, and spread wide his affection and benevolence. And it is those who do this whom ultimately mankind reveres. The East reveres Buddha, the West reveres Christ. Both taught love as the secret of wisdom. The earthly life of Christ was contemporary with that of the Emperor Tiberius, who spent his life in cruelty and disgusting debauchery. Tiberius had pomp and power; in his day millions trembled at his nod. But now he is forgotten by historians.

Those who live nobly, even if in their day they live obscurely, need not fear that they will have lived in vain. Something radiates from their lives, some light that shows the way to their friends, their neighbours - perhaps to long future ages. I find many men nowadays oppressed with a sense of impotence, with the feeling that in the vastness of modern societies there is nothing of importance that the individual can do. This is a mistake. The individual, if he is filled with love of mankind, with breadth of vision, with courage and endurance, can do a great deal.

As geological time goes, it is but a moment since the human race began and only the twinkling of an eye since the arts of civilisation were first invented. In spite of some alarmists, it is hardly likely that our species will completely exterminate itself. And so long as Man continues to exist, we may be pretty sure that, whatever he may suffer for a time, and whatever brightness may be eclipsed, he will emerge sooner or later, perhaps strengthened and reinvigorated by a period of mental sleep. The Universe is vast and men are but tiny specks on an insignificant planet. But the more we realise our minuteness and our impotence in the face of cosmic forces, the more astonishing becomes what human beings have achieved.

It is to the possible achievements of Man that our loyalty is due, and in that thought the brief troubles of our unquiet epoch become endurable. Much wisdom remains to be learned, and if it is only to be learned through adversity, we must endeavour to endure adversity with what fortitude we can

command. But if we can acquire wisdom soon enough, adversity may not be necessary and the future of Man may be happier than any part of his past...

(If We Are To Survive This Dark Time) (36)

HERMANN HESSE:

Hesse is regarded as being one of the leading writers of 20th century German literature, and received the Nobel Prize for literature in 1946 for his novel *Das Glasperlenspiel* (The Glass Bead Game). One of the poems published with the novel, in which a little of his philosophy is expressed, is:

DAS GLASPERLENSPIEL

*Musik des Weltalls und Musik der Meister
Sind wir bereit in Ehrfurcht anzuhoren,
Zu reiner Feier die verehrten Geister
Begnadeter Zeiten zu beschworen.*

*Wir lassen vom Geheimnis uns erheben
Der magischen Formelschrift, in deren Bann
Das Uferlose, Sturmende, das Leben,
Zu klaren Gleichnissen gerann.*

*Sternbildern gleich ertönen sie kristalen,
In ihrem Dienst ward unserm Leben Sinn,
Und keiner kann aus ihren Kreisen fallen,
Als nach der heiligen Mitte hin.*

THE GLASS BEAD GAME

*We re-enact with reverent attention
The universal chord, the Master's harmony,
Evoking in unsullied communion
Minds and times of highest sanctity.*

*We draw upon the iconography
Whose mystery is able to contain
The boundlessness, the storm of all existence,
Give chaos form, and hold our lives in rein.*

*The pattern sings like crystal constellations,
And when we tell our beads, we serve the whole,
And cannot be dislodged or misdirected,
Held in the orbit of the Cosmic Soul.*

* * * * *

In Siddhartha, Hesse outlined a fictional journey of self-discovery, and towards its end, used it as a vehicle to discuss the 'ambiguousness' of Truth:

... "No, I am telling you what I have discovered. Knowledge can be communicated, but not wisdom. One can find it, be fortified by it, do wonders through it, but one cannot communicate and teach it. I suspected this when I was still a youth and it was this that drove me away from teachers. There is one thought I have had, Govinda, which you will again think is jest or folly: that is, in every truth the opposite is equally true. For example, a truth can only be expressed and enveloped in words if it is one-sided. Everything that is thought and expressed in words is one-sided, only half the truth; it lacks totality, completeness, unity. When the illustrious Buddha taught about the world, he had to divide it into Sansara and Nirvana, into illusion and truth, into suffering and salvation. One cannot do otherwise; there is no other method for those who teach. But the world itself, being in and around

us, is never one-sided. Never is a man or a deed wholly Sansara or wholly Nirvana; never is a man wholly saint or a sinner. This only seems so because we suffer the illusion that time is something real. Time is not real, Govinda. I have realised that repeatedly. And if time is not real, then the dividing line that seems to lie between this world and eternity, between suffering and bliss, between good and evil, is also an illusion”...

Hesse’s concept of this Duality of Truth is in harmony with the Pythagorean concept of dialectic: the complementarity of the One and the Many, of masculine and feminine, of being and becoming, and so on. Such a viewpoint may seem to defy logic, but is one of the principal tools of philosophy: for instance, considering the valid thesis that ‘people should help each other,’ there is an equally valid antithesis that ‘people should endeavour to be self-reliant.’ The holistic viewpoint (the synthesis), is that there must necessarily be a dynamic interplay and tension between these two opposing truths. This is the viewpoint of the true mystic. It has been likened to *seeing things from above*, and hence *from the viewpoint of the Whole*.

Marilyn Ferguson summarises Hesse’s position:

...The escape from the prison of the two minds - the task of transformation - is the great theme pervading Hesse's novels: Steppenwolf; Narcissus and Goldmund; The Glass Bead Game; Demian; and Siddhartha. In 1921 he said that he hoped the spiritual wave from India would offer his culture “a corrective, refreshment from the opposite pole”. Europeans unhappy with their overspecialised intellectual climate were not turning so much towards Buddha or [Lao-Tzu] he said, as towards meditation, “a technique whose highest result is pure harmony, a simultaneous and equal co-operation of logical and intuitive thinking”. The East contemplated the forest; the West counted the trees. Yet the need for completion emerges as a theme in the myths of all cultures. They wanted it all - and many transcended the split. The mind that knows the trees and the forest is a new mind.

(The Aquarian Conspiracy) (31)

ARTHUR KOESTLER:

Koestler was a distinguished writer and thinker, and earned the admiration of some of the foremost thinkers of his time; his works include *The Creative Process*, *The Roots of Coincidence*, *The Sleepwalkers* and *The Ghost in the Machine*. He saw the revolution in our concept of reality which was flowing from modern physics:

...it has become an accepted truism among physicists that the sub-atomic structure of any object, including the chair I sit on, cannot be fitted into a framework of space and time. Words like “substance” or “matter” have become void of meaning, or invested with simultaneous contradictory meanings. Thus a beam of electrons, which are supposedly elementary particles of matter, behave in one type of experiment like little pellets, but in another type of experiment they behave like waves; conversely, rays of light behave sometimes like waves and at other times like bullets. Consequently, the ultimate constituents of matter are both substance and non-substance, lumps and waves. But waves in, on, of what? A wave is movement, undulation; but what is it that moves and undulates, producing my chair? It is nothing the mind can conceive of, not even empty space.... In some sense these waves are real: we can photograph the famous dart-board pattern they produce when they pass through a diffraction grate; yet they are like the grin of a Cheshire cat...

...The waves that seem to constitute matter are interpreted by some physicists as completely immaterial waves of probability marking out disturbed areas where an electron is likely to “occur.” “They are as immaterial as the waves of depression, loyalty, suicide and so on, that sweep over a country.” From here it is only one step to calling them abstract, mental, or brain waves in a Universal Mind - without irony...

...Thus the medieval walled-in Universe with its hierarchy of matter, mind and spirit, has been superseded by an expanding Universe of curved, multi-dimensional empty space, where the stars, planets, and their populations are absorbed into the space-crinkles of the abstract continuum - a bubble blown out of “empty space welded on to empty time”...

W.B. YEATS:

Yeats was influenced by Indian pantheism from his early twenties. He was a friend of Rabindranath Tagore for nearly four decades:

*I passed along the water's edge below the humid trees,
My spirit rocked in evening light, the rushes round my knees,
My spirit rocked in sleep and sighs; and saw the moor-fowl pace
All dripping on a grassy slope, and saw them cease to chase
Each other round in circles, and heard the eldest speak:
Who holds the world between His bill and made us strong or weak
Is an undying moorfowl, and He lives beyond the sky.
The rains are from His dripping wing, the moonbeams from His eye.
I passed a little further on and heard a lotus talk:
Who made the world and ruleth it, He hangeth on a stalk,
For I am in His image made, and all this tinkling tide
Is but a sliding drop of rain between His petals wide.
A little way within the gloom a roebuck raised his eyes
Brimful of starlight, and he said: The Stamper of the Skies,
He is a gentle roebuck; for how else, I pray, could He
Conceive a thing so sad and soft, a gentle thing like me?
I passed a little further on and heard a peacock say:
Who made the grass and made the worms and made my feathers gay,
He is a monstrous peacock, and He waveth all the night
His languid tail above us, lit with myriad spots of light.*

The Indian Upon God

Yeats was a mystic-romantic in his youth, but this was tempered by the brutal realities of events such as the First World War. He wrote of the breakdown of civilization during the war, and reverberating in its aftermath, signaling an end of an era. In this case the end of the two thousand year old Christian era:

*Turning and turning in the widening gyre
The falcon cannot hear the falconer;
Things fall apart; the centre cannot hold;
Mere anarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The ceremony of innocence is drowned;
The best lack all conviction, while the worst
Are full of passionate intensity.
Surely some revelation is at hand;
Surely the Second Coming is at hand.
The Second Coming! Hardly are those words out
When a vast image of "Spiritus Mundi"
Troubles my sight: somewhere in the sands of the desert
A shape with a lion body and the head of a man,
A gaze blank and pitiless as the sun,
Is moving its slow thighs while all about it
Reel shadows of the indignant desert birds.
The darkness drops again; but now I know
That twenty centuries of stony sleep
Were vexed to nightmare by a rocking cradle,
And what rough beast, its hour come round at last,*

Slouches towards Bethlehem to be born?

The Second Coming

CARL JUNG:

Carl Jung was one of the pioneers of psychology. He worked at one stage with Wolfgang Pauli on the philosophical relationship of mind and matter; Fritjof Capra writes of Jung's thought:

...In breaking with Freud he abandoned the [mechanistic] models of psychoanalysis and developed a number of concepts that are quite consistent with those of modern physics and with systems theory. Jung, who was in close contact with several of the leading physicists of his time, was well aware of these similarities. In one of his major works, 'Aion', we find the following prophetic passage:

"Sooner or later, nuclear physics and the psychology of the unconscious will draw closer together as both of them, independently and from opposite directions, push forward into transcendental territory... Psyche cannot be totally different from matter, for how otherwise could it move matter? And matter cannot be alien to psyche, for how else could matter produce psyche? Psyche and matter exist in the same world, and each partakes of the other, otherwise any reciprocal action would be impossible. If research could only advance far enough, therefore, we should arrive at an ultimate agreement between physical and psychological concepts. Our present attempts may be bold, but I believe they are on the right lines."...

(The Turning Point) (9)

Laurens van der Post enjoyed a close friendship with Jung in his later years; in the following quotation from his book *Jung and the Story of Our Time*, he writes of Jung's religious thought:

...In plants and trees, perhaps the most intimate issue of the earth's own nature, Jung felt himself closer to the act and deed of creation than in any other physical manifestation of life. It was as if through them, he would say in a voice resonant with awe, that he looked into the mind of the Creator at work on his Creations. They were never just trees, plants, or flowers to him. He was to call them thoughts of God, expressing not only the mind of the Creator but also the magnetic beauty of the instant of creation.

And the older he became, the nearer his own physical end, the closer and clearer his own green thought and the thought the trees expressed in their own green shade drew together and comforted and endeared one to the other.

I remember one evening at Bollingen when he referred to this. A wind was raising a remote Merlinesque sort of moan from the trees he had planted thickly around his tower. The lake was lapping at the shore hard by as the waters of Avalon might have done the night a dying Arthur forced a reluctant knight to toss the great Excalibur back into the deep out of which the image of the shining and dedicated sword had been born. He could never, Jung said, go along with the concept that man alone was created in the image of God. That wind, those trees, that water we heard, those contemplative plants and flowers outside, the valleys and the great mountaintops with their fall of snow, reflecting sun, moon and stars underneath, all seemed to him as a boy an expression of the permanent essence of God more true and wonderful than any in men and their societies. It was to them that he turned when the world for the moment defeated his questioning self...

(from JUNG and the story of our time) (11)

With regard to his concept of the collective unconscious, Jung found a great deal of support for his ideas within world religions. He warned, however, that the West shouldn't casually appropriate foreign concepts, but must re-evaluate its own immensely rich culture in their light:

...There was another intimation of the continuity he sought in the history of the Christian Gnostics so ruthlessly repressed and persecuted by the early Church. He recognised a kinship in Gnosticism with his own experience but its representation in history, almost entirely with Church Fathers ranged against it, was too partial and uncertain for him to take up the thread with confidence until much

later, when the discovery of the Dead Sea Scrolls and new Coptic papyrus scripts from Egypt [i.e. the Nag Hammadi manuscripts, ordered by Athanasius to be destroyed, but hidden by a monk and rediscovered in 1947] gave additional scope to this line of investigation...

...The Pauline “not I but Christ in me” had always been for him an arrival at a self realisation far beyond any egotistical aspiration of man, an achievement of an everlasting state of truth where at last the man in living bondage to a value greater than himself was freer than he had ever been...

...Jung felt no further need for proof of the hypothesis of the collective unconscious; his brief contact with Indians in America, and above all the Elongyi in Africa, had demonstrated how it held good for the primitive as well as the “civilised”; his contact with Wilhelm proved in a much more complex and involved manner how another great civilisation like China, without any tangible connections with his own, had come to the same conclusion. The Upanishads had already established the same pattern in the sophisticated Hindu India and a brief visit to the subcontinent itself was to demonstrate how the Lord Buddha too... was another realisation of the pattern of a greater self in man... And characteristically, as a result he addressed an urgent warning to his own culture, a warning even more urgent and relevant today than when he was alive. This warning had its earth in the basic conviction that science is the finest instrument of the Western mind, even though not the end it is often assumed to be, and that it had on no account to be abandoned in his approach to all this wealth of empirical matter from the East...

...For him this Oriental material, far from consisting of sentimental exaggerated mystical intuitions, bordering on the pathological and emanating from ascetic recluses and archaic cranks (significantly, on his visit to India he asked devoutly to be preserved from professional “holy” Hindu men), was wisdom based on practical knowledge, hard spiritual empiricism, and a totally original exercise of intelligence of the finest kind. He could not bear to see it undervalued and abused as magical formulas and spiritual amulets for correcting our own European disorientation...

...It is not for us to imitate what is organically foreign, he urged, or worse still to send out missionaries to foreign peoples. It is our task to build up our Western culture, which sickens of a thousand ills. This had to be done on the spot, on our own doorstep. “Into the work must be drawn the European as he is in his Western common places, with his marriage problems, his neuroses, his social and political illusions, and his whole philosophical disorientation...”

(JUNG and the Story of Our Time) (11)

The same basic theme is expressed by one of his professional colleagues, Marie-Louise Franz:

...In his memoirs, Jung clarifies his personal attitude to the Eastern way. He writes that he does not seek, as the... Indian does, to be freed from Nature and the inner opposites. Instead he seeks that wisdom which comes from the fullness of a life lived with devotion... “Nature, the psyche, and life appear to me like the divinity unfolded,” and also “the inferno of [the] passions” has to be lived through - in order to be freed of them. Here Jung confesses his Christian spiritual heritage: conflict (represented by the symbol of the cross) may not be circumvented, nor suffering avoided. He liked to quote Thomas a Kempis to the effect that suffering is the horse which carries us fastest to wholeness.

Jung foresaw that the East would exert a growing psychological influence on our culture, while we would intervene drastically with their world with materialism and political destruction. He saw that Buddhism, too, has been weakened by a partial hardening into an outer formula, as Christianity has with the Westerner...

...It appears that in the East, as well as in the West, certain individuals are being called to rediscover the way to the original experience, instead of being satisfied with a mere imitation of the struggle to preserve the tradition, since only that which is genuinely experienced can hold its own against the psychological devastation which we are currently exporting to the East...

(from C.G.JUNG: His myth in our time) (12)

ALDOUS HUXLEY:

Huxley used his well-known work *Brave New World* to express his concern that our concentration on materialism is effectively damaging that which has real substance - values. The book describes a totalitarian society that disregards individual dignity and worships science and technology and power.

Within his anthology *The Perennial Philosophy*, Huxley outlined the manifestations of mystical thought in the Western and Eastern philosophical and religious traditions, as well as those of aboriginal peoples throughout the world:

PHILOSOPHIA PERENNIS - ... the metaphysic that recognises a divine Reality substantial to the world of things and lives and minds; the psychology that finds in the soul something similar to, or even identical with, divine Reality; the ethic that places man's final end in the knowledge of the immanent and transcendent Ground of all being - the thing is immemorial and universal. Rudiments of the Perennial Philosophy may be found among the traditional lore of primitive peoples in every region of the world, and in its fully developed form it has a place in every one of the higher religions...
(23)

...The doctrine that God is in the world has an important corollary - the sacredness of Nature, and the sinfulness and folly of man's overweening efforts to be her master rather than her intelligently docile collaborator. [Animals] and even things are to be treated with respect and understanding, not brutally oppressed to serve our human ends:

The ruler of the Southern Ocean was Shu, the ruler of the Northern Ocean was Hu, and the ruler of the centre was Chaos. Shu and Hu were continually meeting in the land of Chaos, who treated them very well. They consulted together how they might repay his kindness, and said: "Men all have seven orifices for the purpose of seeing, hearing, eating and breathing, while this ruler has not a single one. Let us try to make them for him." Accordingly they dug one orifice in him every day. At the end of the seven days Chaos died.

(Chuang Tzu)

In this delicately comic parable Chaos is Nature in the state of wu-wei - non assertion or equilibrium. Shu and Hu are the living images of those busy persons who thought they would improve on Nature by turning dry prairies into wheat fields, and produced deserts; who proudly proclaimed the conquest of the Air, and then discovered that they had defeated civilisation; who chopped down vast forests to provide the newsprint demanded by that universal literacy which was to make the world safe for intelligence and democracy, and got wholesale erosion, pulp magazines and the organs of Fascist, Communist, capitalist and nationalist propaganda. In brief Shu and Hu are devotees of the apocalyptic religion of Inevitable Progress, and their creed is that the Kingdom of Heaven is outside you, and in the future. Chuang Tzu, on the other hand has no desire to bully Nature into subserving ill-considered temporal ends, at variance with the final end of men as formulated in the Perennial Philosophy. His wish is to work with Nature, so as to produce material and social conditions in which individuals may realise Tao on every level from the physiological to the spiritual.

Compared with that of the Taoists and Far Eastern Buddhists, the Christian attitude towards Nature has been curiously insensitive and often downright domineering and violent. Taking their cue from an unfortunate remark in Genesis, [Christian] moralists have regarded animals as mere things which men do right to exploit for their own ends...

(*The Perennial Philosophy*) (23)

WERNER HEISENBERG:

Heisenberg was a major figure in the development of quantum theory, and his famous 'uncertainty principle' is now recognised as being revolutionary in terms of our understanding of reality. He writes of the meaning of the new physics in this respect:

[In modern physics,] one has now divided the world not into different groups of objects but into

different groups of connections...What can be distinguished is the kind of connection which is primarily important in a certain phenomenon...The world thus appears as a complicated tissue of events, in which connections of different kinds alternate or overlap or combine and thereby determine the texture of the whole...

(Quoted in *The Tao of Physics*) (4)

While not being within any conventional religious tradition, Bohr, Heisenberg and Pauli were convinced of a 'Central Order' which made reality rational. They were aware of the limitations of logical positivism (which was arguably one of the narrowest and most materialistic philosophies ever proposed) in terms of beginning to comprehend Reality. They pointed out that it embraces only *half* the truth, and must be balanced by concepts that lie outside its permissible sphere of interest.

ERWIN SCHRÖDINGER:

Schrödinger received the Nobel Prize in physics for his work in developing the theory of wave mechanics, which is one of the pillars of quantum theory. In his personal life he was very much a mystic:

...The multiplicity [of minds and consciousnesses] is only apparent, in truth there is only one mind. This is the doctrine of the Upanishads. The mystically experienced union with God regularly entails this attitude unless it is opposed by strong existing prejudices; this means that it is less easily accepted in the West than in the East. Let me quote, as an example outside the Upanishads, an Islamic-Persian mystic of the thirteenth century, Aziz Nasafi. I am taking it from a paper by Fritz Mayer and translating from his German translation:

On the death of any living creature the spirit returns to the spiritual world, the body to the bodily world. In this, however, only the bodies are subject to change. The spiritual world is one single spirit who stands like unto a light behind the bodily world and who, when any single creature comes into being, shines through it as through a window. According to the kind and size of the window, less or more light enters the world. The light itself remains unchanged.

Ten years ago, Aldous Huxley published a precious volume which he called 'The Perennial Philosophy' and which is an anthology from the mystics of the most various periods and the most various peoples. Open it where you will and you find many beautiful utterances of a similar kind. You are struck by the miraculous agreement between humans of different race, different religion, knowing nothing of each other's existence, separated by centuries and millennia, and by the greatest distances there are on our globe...

In another essay he writes on the insight of Unity:

...Suppose you are sitting on a bench beside a path in a high mountain country. There are grassy slopes all around, with rocks thrusting through them; on the opposite slope of the valley there is a stretch of scree with a low growth of alder bushes. Woods climb steeply on both sides of the valley, up to the line of treeless pasture; facing you, soaring up from the depths of the valley, is the mighty, glacier-tipped peak, its smooth snowfields and hard-edged rock faces touched at this moment with soft rose colour by the last rays of the departing sun, all marvelously sharp against the clear, pale, transparent blue of the sky.

According to our usual way of looking at it, everything that you are seeing has, apart from small changes, been there for thousands of years before you. After a while - not long - you will no longer exist, and the woods and the rocks and the sky will continue, unchanged, for thousands of years after you.

What is it that has called you so suddenly out of nothingness to enjoy for a brief while a spectacle which remains quite indifferent to you? The conditions for your existence are almost as old as the rocks. For thousands of years men have striven and suffered and begotten and women have brought forth in pain. A hundred years ago, perhaps, another man sat on this spot; like you, he gazed with awe and yearning in his heart at the dying light on the glaciers; like you, he was begotten of man and born of woman. He felt pain and brief joy as you do. Was he someone else? Was it not you

yourself? What is this Self of yours? What was the necessary condition for making the thing conceived this time into you, just you, and not someone else? What clearly intelligible scientific meaning can this “someone else” really have?...

...Looking and thinking in that manner you may suddenly come to see, in a flash, the profound rightness of the basic conviction in Vedanta: it is not possible that this unity of knowledge, feeling, and choice which you call your own should have sprung into being from nothingness at a given moment not so long ago; rather this knowledge, feeling, and choice are essentially eternal and unchangeable and numerically one in all men, nay in all sensitive beings...

...Inconceivable as it seems to ordinary reason, you - and all other conscious beings as such - are all in all. Hence this life of yours which you are living is not merely a piece of the entire existence, but is, in a certain sense, the whole; only this whole is not constituted that it can be surveyed in one single glance. This, as we know, is what the Brahmins express in that sacred, mystic formula which is yet really so simple and so clear: Tat tvam asi, this is you...

(Quoted in Quantum Questions) (26)

J. ROBERT OPPENHEIMER:

Oppenheimer directed the Manhattan project, arguably the most momentous development in human history. As a brilliant academic, he had tended towards pacifism, but during World War II was presented with a profound dilemma when asked to oversee the development of a nuclear weapon. No one, including Oppenheimer, could know whether the Axis nations were developing a nuclear capacity. What was known was that German scientists had been in the forefront of nuclear fission research prior to the war. Oppenheimer had to make a decision, and in doing so, he referred back to sources such as the writings of John Donne, William Shakespeare’s *Hamlet*, T.S. Eliot’s *Waste Land*, and the *Bhagavad-Gita*:

“...If you looked at his outlook on life, his philosophy,” his former colleague Joseph Rotblat said recently, “you wouldn’t believe that such a man would advocate the use of the bomb on Hiroshima – on civilians – and yet he did. Not only did he build the bomb, but to the end of his life – even after acknowledging that he had blood on his hands – he maintained he had done the right thing...”

“...in his resort to a philosophy from ancient India, Oppenheimer was revolting against his upbringing. The child of Jews affiliated with no temple but instead with Felix Adler’s Society for Ethical Culture... he had studied for ten years at the Ethical Culture School in New York. Adler had abandoned the transcendental and supernatural aspects of religion, focusing instead on human welfare, which he saw as the basis for a faith superseding both Judaism and Christianity...”

“...After Oppenheimer left the Ethical Culture School and went to Harvard... he began seeking a “more profound approach” in the Hindu classics...”

The *Gita*’s thesis is that there are few purely “black and white” situations in life. Duty may sometimes entail being involved in warfare and strife. The superficial nobility of trying to avoid conflict could sometimes be counterproductive in the longer term:

“...Oppenheimer thought that the bomb would save lives by speedily ending World War II. He was acutely aware of the fascist atrocities that might be stopped by an American atomic bomb: after the fall of France in 1940 he had said that it was necessary to do something to save Western civilization...”

In *Brighter than a Thousand Suns: A Personal History of the Atomic Scientists*, Robert Jungk writes of Oppenheimer that when the fireball of the first nuclear weapon blazed over the Trinity test site in July of 1945:

“...a passage from the Bhagavad-Gita flashed into his mind:

***...If the radiance of a thousand suns were to burst into the sky,
That would be like the splendor of the Mighty One –***

Yet, when the sinister and gigantic cloud rose up in the far distance over Point Zero, he was reminded

of another line from the same source:

...I am become death, the shatterer of worlds.”

(Robert Jungk) (123)

“...Soon after Hiroshima and Nagasaki were obliterated, he became a leading critic of nuclear weapons and nuclear war. On occasion he suggested that perhaps the United States should have given the Japanese a less lethal demonstration of the bomb before using it on a city. In 1959 he said that every time the United States ‘has expressed the view that there was no harm in using the super weapons, provided that they were used against an antagonist who had done wrong, we have been in error’...”

(**The Gita of J.Robert Oppenheimer**) (120)

SYSTEMS THEORY:

Fritjof Capra discusses systems theory with regard to its application to Nature and human organisation:

...Systems Theory looks at the world in terms of the interrelatedness and interdependence of all phenomena, and in this framework an integrated whole whose properties cannot be reduced to those of its parts is called a system. Living organisms, societies, and ecosystems are all systems...

...Living systems are organised in such a way that they form multi-level structures, each level consisting of subsystems which are wholes in regard to their parts, and parts with respect to the larger wholes. Thus molecules combine to form organelles, which in turn combine to form cells. The cells form tissues and organs, which themselves form larger systems, like the digestive system or the nervous system. These, finally, combine to form the living woman or man; and the “stratified order” does not end there. People form families, tribes, societies, nations. All these entities - from molecules to human beings, and on to social systems - can be regarded as wholes in the sense of being integrated structures, and also as parts of larger wholes at higher levels of complexity. In fact... parts and wholes in an absolute sense do not exist at all.

Arthur Koestler has coined the word “holons” for these subsystems which are both wholes and parts, and he has emphasised that each holon has two opposite tendencies: an integrative tendency to function as part of the larger whole, and a self-assertive tendency to preserve its individual autonomy. In the biological or social system each holon must assert its individuality in order to maintain the system's stratified order, but it must also submit to the demands of the whole in order to make the system viable. These two tendencies are opposite but complementary. In a healthy system - an individual, a society, or an ecosystem - there is a balance between integration and self-assertion. This balance is not static but consists of a dynamic interplay between the two complementary tendencies, which makes the whole system flexible and open to change...

(**The Turning Point**) (9)

KURT GÖDEL:

Gödel was arguably the greatest logician of the 20th century. He postulated the famous ‘Incompleteness Theorem,’ the ramifications of which are still being solidly debated. It could be said that it ranks with Heisenberg's uncertainty principle in mathematical and scientific thought, and has had a significant effect on the development of modern philosophy. Although he was an early member of the Logical Positivists, he moved in later years to a much broader perspective.

The mathematician Rudy Rucker met Gödel on several occasions; in his book *Infinity and the Mind*, he relates something of their discussions:

...I asked him how best to perceive pure abstract possibility. He said three things:

i) First one must close off the other senses, for instance, by lying down in a quiet place. It is not enough, however, to perform this negative action, one must actively seek with the mind.

ii) It is a mistake to let everyday reality condition possibility, and only to imagine the combinings

and permutations of physical objects - the mind is capable of perceiving infinite sets.

iii) The ultimate goal of such thought, and of all philosophy, is the perception of the Absolute. Gödel rounded off these comments with a remark from Plato: "When Plautus could fully perceive the Good, his philosophy ended."

Gödel shared with Einstein a certain mystical turn of thought. The word "mystic" is almost pejorative these days. But mysticism does not really have anything to do with incense or encounter groups or demoniac possession. There is a difference between mysticism and occultism.

*A pure strand of classical mysticism runs from Plato to Plotinus and Eckhart to such great modern thinkers as Aldous Huxley and D.T.Suzuki. The central teaching of mysticism is this: **Reality is One**. The practice of mysticism consists in finding ways to experience this higher unity directly.*

The One has variously been called the Good, God, the Cosmos, the Mind, the Void, or (perhaps more neutrally) the Absolute. No door in the labyrinthine castle of science opens directly onto the Absolute. But if one understands the maze well enough, it is possible to jump out of the system and experience the Absolute for oneself.

The last time I spoke with Kurt Gödel was on the telephone, in March 1977. I had been studying the problem of whether machines can think, and I had become interested in the distinction between a system's behaviour and the underlying mind or consciousness, if any.

What had struck me was that if a machine could mimic all of our behaviour, both internal and external, then it would seem that there is nothing left to be added. Body and brain fall under the heading of hardware. Habits, knowledge, self-image and the like can all be classed as software. All that is necessary for the resulting system to be alive is that it actually exist.

In short, I had begun to think that consciousness is really nothing more than simple existence. By way of leading up to this, I asked Gödel if he believed there is a single Mind behind all the various appearances and activities of the world.

He replied that, yes, the Mind is the thing that is structured, but that the Mind exists independently of its individual properties.

I then asked if he believed that the Mind is everywhere, as opposed to being localised in the brains of people.

Gödel replied, "Of course. This is the basic mystic teaching."

We talked a little of set theory, and then I asked him my last question:

"What causes the illusion of the passage of time?"

Gödel spoke not directly to this question, but to the question of what my question meant - that is, why anyone would even believe that there is a perceived passage of time at all.

He went on to relate the getting rid of belief in the passage of time to the struggle to experience the One Mind of mysticism. Finally he said this:

*"The illusion of the passage of time arises from the confusing of the **given** with the **real**. Passage of time arises because we think of occupying different realities. In fact, we occupy only different givens. There is only one reality."*

I wanted to visit Gödel again, but he told me that he was too ill. In the middle of January 1978, I dreamed I was at his bedside.

There was a chess board on the covers in front of him. Gödel reached his hand out and knocked the board over, tipping the men onto the floor. The chessboard expanded to an infinite mathematical plane. And then that, too, vanished. There was a brief play of symbols, and then emptiness - an

emptiness flooded with even white light.

The next day I learned that Kurt Gödel was dead...

(Infinity and the Mind) (40)

BRIAN JOSEPHSON:

A Nobel laureate in physics for the discovery of the effect in quantum physics which has been named after him, Josephson understood the need to investigate the reality implied by quantum theory. When asked in an interview about his current work, which is an attempt at synthesis of some of the concepts of East and West, Josephson replied:

When I was doing my work in superconductivity, I regarded it as highly important. Afterward, I started seeing things from a wider viewpoint, and I realised that many of my initial discoveries were not as important as I had thought, but I did not immediately have anything to replace my former interests. Then, when I was a senior research fellow at Trinity College in the late sixties, I talked a lot with another fellow of the college who had changed his views radically on a visit to the States. He kept trying to persuade the other members of the college that they had a limited perspective on reality. I was about the only person who took him at all seriously.

Then, some time later, I interacted with another fellow at Trinity, Dr. George Owen...His side interest is in psychic phenomena, and I talked with him as well. He opened me up to the possibility that there may be a range of phenomena which were more or less rejected by conventional scientists.

OMNI: “How did you reconcile such ideas with your background in hard, classical physics?”

Well, I was aware of Bell’s theorem, postulated by the theoretical physicist John Bell in 1965; to me, it’s one of the most important advances in recent physics. The theorem is related to a paper written by Einstein, Podolsky and Rosen in 1935. The argument given in this paper appeared to show that if quantum mechanics were correct, then you could split two connected particles, sending each one traveling in opposite directions, and still influence one of the particles by disturbing the other, even if the partner had been flung miles away. In essence, the particles would be communicating instantly, faster than the speed of light.

Einstein, of course, believed this was impossible. But John Bell and, later, Henry Stapp used the well accepted equations of quantum mechanics to show that such superluminal communication is just what one might expect. The theorem raises the possibility that one part of the Universe may have knowledge of the other part - some kind of contact at a distance under certain conditions...

Josephson believes that there may be some form of field of universal consciousness and intelligence, a view which is similar to that held by some of the Eastern mystics:

...I think the answer lies in quantum mechanics. According to quantum theory, it's impossible to predict the characteristic of a subatomic particle before it's measured - the particle exists merely as a wave of energy, as potential. But the likelihood of its acquiring each one of as many possible characteristics is predicted with astounding accuracy by an equation called the wave function.

The wave function was derived through experimental observation - but nobody really knows why it works. Quantum theory becomes less puzzling if you say that there’s some intelligence operating at a very basic level. You might say that the wide-ranging possibilities described by the wave function are really thoughts generated by the intelligence. The intelligence is simply imagining a variety of possible worlds, and when it actually chooses one of those possibilities, then that becomes tangible reality. All the other potentialities simply collapse. That would explain where the wave function comes from - it simply describes the way this universal intelligence works.

OMNI: “Does this universal intelligence connect up with our own?” “Are we part of it?”

Yes. I think that our thought processes are oddly dependent on it, and not entirely localised in our brains...

...There probably is something corresponding to God in physical reality - a kind of integrated 'I', or conscious awareness, or a highest level of intelligent Being. This level may not contradict the physical theories that science currently holds; but my feeling is that this level of reality is what may have been left out of our present-day theories...

With his background in hard science, Josephson believes that a mathematical approach to understanding aspects of reality is valid. This view is not new, and goes back at least as far as Pythagoras. He believed that attempts to integrate Western science with Eastern mystical traditions were worthwhile:

...I think a lot of the people trying to join Eastern and Western perspectives have a good qualitative picture of how things are. But no one has the mathematics to make this picture quantitative. And I think it's basically a mathematical problem. Someone has to find the right mathematics to fit the situation...

BEDE GRIFFITHS:

As a Benedictine monk, Bede Griffiths lived and worked for more than twenty-five years as a missionary in India. In doing so, he was influenced by Eastern philosophies, although he was already well acquainted with the ideas of the great Western philosophers of the Platonic Tradition. In his book *"The Marriage of East and West,"* he explained what this melding of philosophies meant with regard to his Christian belief:

...Was it then possible to speak of Jesus as God? The New Testament as a whole refuses to do so. It speaks of him as "son" of God, "image" of God, "word" of God, but all these imply in some way equality with God... But there is clearly a sense in which all men are sons of God. Man is created in the "image and likeness" of God; he is created to "share in the divine nature." What was revealed in Jesus was the destiny of all men. He is the exemplar in whom the destiny of man was seen to be fulfilled.

As a man Jesus had a physical organism with all the effects of heredity, as a Jew, from his mother, and his body was subject to all the normal effects of Nature... There is every reason to think that it was only gradually that he realised his calling as Messiah and the fact that it would lead to death on a cross. At the moment of death he experienced in his soul the tragic sense of separation from God, when he cried out: "My God, my God, why hast thou forsaken me?"

But behind all this human experience of body and soul, there was the intuitive knowledge of the spirit. In the depths of his being, like every human being, he was present to himself, aware of himself, in relation to the eternal ground of his being. In most people this intuitive awareness is inchoate or imperfect, but in the great prophet and mystic, in the seer like Gautama Buddha or the seers of the Upanishads, this intuitive knowledge of the ground of being becomes a pure intuition, a total awareness. Such according to the tradition of St. John's Gospel was the nature of the knowledge of Jesus. He knew himself in the depth of his spirit as one with the eternal ground of his being, which he spoke of as the Father. He knew himself as standing in a relationship of total dependence on the Father and of total surrender to Him. He knew himself as expressing the mind and will of the Father, and of accomplishing his purpose for the world. It is this that is signified by calling himself Son...

...This concept of "co-inherence," of the mutual indwelling of the Father in the Son and the Son in the Father through the Spirit of love, helps us to understand not only the nature of the Godhead, but also the nature of human relationships within the Godhead. When human nature is taken up by the Spirit into the knowledge and love of the Father and the Son, the human consciousness is opened up to the divine mode of consciousness. Each human consciousness is expanded so as to embrace all other spheres of consciousness, both of gods or angels and of men. There is a mutual interpenetration at every level. Every being becomes transparent to every other being; each one mirrors the other and the whole. This was beautifully expressed by Plotinus, when he said: "all is transparent, nothing dark, nothing resistant, every being is lucid to every other in breadth and depth; light runs through light and each of them contains all within itself, and at the same time sees all in every other, so that everywhere there is all, and all is all and each all, and infinite the glory." This is the vision of

ultimate reality which is given us in the Perennial Philosophy. It is common to Greece and to India, China and Arabia, and is found in the Christian doctrine of the Mystical Body of Christ, where each creature participates through the indwelling presence of the Spirit in the inner life of the Godhead and each reflects the glory in the other, "being changed from glory into glory as by the Spirit of the Lord..."

(The Marriage of East and West) (30)

ABRAHAM MASLOW:

Abraham Maslow held professorships in psychology at various universities before assuming the Chairmanship of the Psychology department at Brandeis University. He wrote several books, including *Principles of Abnormal Psychology*, *Towards a Psychology of Being*, and *The Healthy Personality*.

Maslow made a study of the development of the human psyche over many years. Coming from this standpoint, his work on the development of "a good life," is in harmony with some of the concepts inherent within the religions of the perennial philosophy. In the following extract from *Towards a Psychology of Being*, he outlines some of the fundamentals of the healthy human personality:

...It has now been sufficiently demonstrated that the human being has, as part of his intrinsic construction, not only physiological needs, but also truly psychological ones. They may be considered as deficiencies which must be optimally fulfilled by the environment in order to avoid sickness and subjective ill-being. They can be called basic, or biological, and likened to the need for salt, or calcium or vitamin D because

- *The deprived person yearns for their gratification persistently.*
- *Their deprivation makes the person sicken and wither.*
- *Gratifying them is therapeutic, curing the deficiency-illness.*
- *Steady supplies forestall these illnesses.*
- *Healthy (gratified) people do not demonstrate these deficiencies.*

But these needs are related to each other in a hierarchical and developmental way, in an order of strength and priority. Safety is a more prepotent, or stronger, more pressing, more vital need than love, for instance, and the need for food is usually stronger than either. Furthermore, all these basic needs may be considered to be simply steps along a path to general self-actualisation, under which all basic needs can be subsumed.

By taking these data into account, we can solve many value problems that philosophers have struggled with ineffectually for centuries. For one thing, it looks as if there were a single ultimate value for Mankind, a far goal toward which all men strive. This is called variously by different authors self-actualisation, self-realisation, integration, psychological health, individuation, autonomy, creativity, productivity, but they all agree that this amounts to realising the potentialities of the person, that is to say, becoming fully human, everything that the person can become.

But it is also true that the person himself does not know this. We, the psychologists observing and studying, have constructed this concept in order to integrate and explain lots of diverse data. So far as the person himself is concerned, all he knows is that he is desperate for love, and thinks he will be forever happy and content if he gets it. He does not know in advance that he will strive on after this gratification has come, and that gratification of one basic need opens consciousness to domination by another, "higher" need. So far as he is concerned, the absolute, ultimate value, synonymous with life itself, is whichever need in the hierarchy he is dominated by during a particular period...

Maslow noted that individuals in striving for ultimate fulfillment of their nature, often have 'peak experiences.' These can range from those which are relatively minor (which many people experience at some stage in their life), to that of Bucke and further to those of people such as Pascal, Plotinus, and the

great mystics:

...This also helps to solve the apparent paradox of contrast between Being and Becoming. It is true that human beings strive perpetually toward ultimate humanness, which itself may be anyway a different kind of Becoming and growing. It's as if we were doomed forever to try to arrive at a state to which we could never attain. Fortunately we now know this not to be true, or at least it is not the only truth. There is another truth which integrates with it. We are again and again rewarded for good Becoming by transient states of absolute Being, by peak-experiences. Achieving basic-need gratifications give us many peak-experiences, each of which are absolute delights, perfect in themselves, and needing no more than themselves to validate life. This is like rejecting the notion that a Heaven lies someplace beyond the end of the path of life. Heaven, so to speak, lies waiting for us through life, ready to step into for a time and to enjoy before we have to come back to our ordinary life of striving. And once we have been in it, we can remember it forever, and feed ourselves on this memory and be sustained in time of stress.

Not only this, but the process of moment-to-moment growth is itself intrinsically rewarding and delightful in an absolute sense. If they are not mountain peak-experiences, at least they are foothill experiences, little glimpses of absolute, self-validating delight, little moments of Being. Being and Becoming are not contradictory or mutually exclusive. Approaching and arriving are both in themselves rewarding...

...Full humanness can be defined not only in terms of the degree to which the definition of the concept "human" is fulfilled, i.e., the species norm. It also has a descriptive, cataloguing, measurable, psychological definition. We now have from a few research beginnings and from countless clinical experiences some notion of the characteristics both of the fully evolved human being and of the well-growing human being. These characteristics are not only neutrally describable; they are also subjectively rewarding, pleasurable and reinforcing.

Among the objectively describable and measurable characteristics of the healthy human specimen are -

- *Clearer, more efficient perception of reality.*
- *More openness to experience.*
- *Increased integration, wholeness, and unity of the person.*
- *Increased spontaneity, expressiveness, full functioning; aliveness.*
- *A real self; a firm identity; autonomy, uniqueness.*
- *Increased objectivity, detachment, transcendence of self.*
- *Recovery of creativeness.*
- *Ability to fuse concreteness and abstractness.*
- *Democratic character structure.*
- *Ability to love, etc.*

...In addition, there are subjective confirmations or reinforcements of self-actualisation or of good growth toward it. These are the feelings of zest in living, of happiness or euphoria, of serenity, of joy, of calmness, of responsibility, of confidence in one's ability to handle stresses, anxieties, and problems. The subjective signs of self-betrayal, of fixation, of regression, and of living by fear rather than by growth are such feelings as anxiety, despair, boredom, inability to enjoy, intrinsic guilt, intrinsic shame, aimlessness, feelings of emptiness, of lack of identity, etc...

He holds that the aspirations of the healthy individual are in accordance with the principles of most religions:

...If the various extant religions may be taken as expressions of human aspiration, i.e., what people would like to become if only they could, then we can see here too a validation of the affirmation that all people yearn toward self-actualisation or tend toward it. This is so because our description of the actual characteristics of self-actualising people parallels at many points the ideals urged by the religions, e.g., the transcendence of self, the fusion of the true, the good and the beautiful,

contribution to others, wisdom, honesty and naturalness, the transcendence of selfish and personal motivations, the giving up of “lower” desires for “higher” ones, the easy differentiation between ends (tranquility, serenity, peace) and means (money, power, status), the decrease of hostility, cruelty and destructiveness and the increase of friendliness, kindness, etc...

...Man demonstrates in his own nature a pressure toward fuller and fuller Being, more and more perfect actualisation of his humanness in exactly the same naturalistic, scientific sense that an acorn may be said to be “pressing toward” being an oak tree, or that a tiger can be observed to “push toward” being tigerish, or a horse toward being equine. Man is ultimately not moulded or shaped into humanness, or taught to be human. The role of the environment is ultimately to permit him or help him to actualise his own potentialities, not its potentialities. The environment does not give him potentialities and capacities; he has them in inchoate or embryonic form, just exactly as he has embryonic arms and legs. And creativeness, spontaneity, selfhood, authenticity, caring for others, being able to love, yearning for truth are embryonic potentialities belonging to his species-membership just as much as are his arms and legs and brain and eyes...

(Towards a Psychology of Being) (61)

YOUNG’S EXPERIMENT:

In physics, Thomas Young's two-slit experiment marks a watershed in the development in our understanding of light, and in fact of radiation in general. Although originally carried out nearly two hundred years ago, it is still an incredibly fertile area for investigation:

In the experiment, a beam of light is passed through two slits in a screen. The image of the split light beam is shone on a screen behind the first. Rather than a simple double band of light, there appears a sequence of bright and dark bands (interference fringes) caused by the light waves from each slit arriving successively in step or out of step, depending on position. Even when one photon at a time traverses the apparatus, the same interference pattern builds up in a speckled fashion, though any given photon can only go through either one slit or the other in the screen, and has no neighbouring photons against which to gauge its step.

In the 1920s Bohr gave a possible resolution of the paradox. Think of the case when the photon goes through hole A as one possible world (world A) and the route through hole B as another (world B). Then both these worlds, A and B, are somehow present together, superimposed. We cannot say, Bohr asserted, that the world of our experience represents either A or B, but is a genuine hybrid of the two. Moreover, this hybrid reality is not simply the sum total of the two alternatives, but a subtle marriage: each world interferes with the other to produce the celebrated pattern. The two alternative worlds overlap and combine, rather like two movie films being projected simultaneously onto the same screen.

Einstein, the eternal sceptic, refused to accept hybrid realities. He confronted Bohr with a modified version of the two-hole experiment, in which the screen is allowed to move freely. Careful observation, he insisted, would enable one to determine through which hole the photon went. Passage through the left hand hole results in a slight deflection of the photon to the right, and the recoiling screen could in principle be seen to move to the left. Motion to the right would indicate that the other hole had been traversed. By this means, experiment would determine that either world A or B corresponds to reality...

Bohr countered decisively. Einstein was changing the rules in midgame. If the screen is free to move, then its motion is also subject to the inherent uncertainty of quantum physics. Bohr easily showed that the effect of recoil would be to destroy the interference pattern on the [screen], producing merely two fuzzy blobs instead...

The bizarre conclusion from this... is that we - the experimenters - are involved in the nature of reality in a fundamental way. By choosing to clamp the screen, we can construct a mysterious hybrid world in which photon paths have no well-defined meaning...

John Wheeler... drew a still more mind-boggling conclusion from the two-hole experiment. He pointed out that by a simple modification of the apparatus it is possible to delay the choice of measurement strategy until after the photon has passed through the screen. Our decision to make a hybrid world can thus be delayed until after that world has come into existence! The precise nature of reality, Wheeler claims, has to await the participation of a conscious observer. In this way, mind can be made responsible for the retroactive creation of reality - even a reality that existed before there were people...

...It will be evident from the foregoing that the quantum theory demolishes some cherished commonsense concepts about the nature of reality. By blurring the distinction between subject and object, cause and effect, it introduces a strong holistic element into our world view...

(God and the New Physics) (28)

FRITJOF CAPRA:

Trained as a physicist, Fritjof Capra graduated from the University of Vienna in 1966, and has carried out research at the Lawrence Berkeley Laboratories. He currently lectures at the University of California at Berkeley. In his best-selling book *The Tao of Physics*, he outlined the parallels between the findings of modern physics and the beliefs of the great religions:

...The basic elements of the Eastern world view are also those of the world view emerging from modern physics...Eastern thought and, more generally, mystical thought provide a consistent and relevant philosophical background to the theories of contemporary science; a conception of the world in which scientific discoveries can be in perfect harmony with spiritual aims and religious beliefs. The two basic themes of this conception are the unity and interrelation of all phenomena and the intrinsically dynamic nature of the Universe...

...In modern physics, the Universe is thus experienced as a dynamic, inseparable whole which always includes the observer in an essential way. In this experience, the traditional concept of space and time, of isolated objects, and of cause and effect, lose their meaning. Such an experience, however, is very similar to that of the Eastern mystics. The similarity becomes apparent in quantum and relativity theory, and becomes even stronger in the 'quantum-relativistic' models of subatomic physics where both these theories combine to produce the most striking parallels to Eastern mysticism...

...I see science and mysticism as two complementary manifestations of the human mind; of its rational and its intuitive faculties. The modern physicist experiences the world through an extreme specialisation of the rational mind; the mystics through an extreme specialisation of the intuitive mind... To paraphrase an old Chinese saying, mystics understand the roots of the Tao but not its branches; scientists understand its branches but not its roots. Science does not need mysticism and mysticism does not need science; but men and women need both... What we need...is not a synthesis but a dynamic interplay between mystical intuition and scientific analysis...

...So far this has not been achieved in our society. At present our attitude is too 'yang' - to use again Chinese phraseology - too rational, male and aggressive. Scientists themselves are typical ...although their theories are leading to a world view which is similar to the mystics, it is striking how little this has affected their attitudes... Many of them actively support a society which is still based on the mechanistic, fragmented world view, without seeing that science points beyond such a view, towards a oneness of the universe which includes not only our natural environment but also our fellow human beings. I believe that the world view implied by modern physics is inconsistent with our present society, which does not reflect the harmonious interrelatedness we observe in Nature. To achieve such a state of dynamic balance, a radically different social and economic structure will be needed: a cultural revolution in the true sense of the word. The survival of our whole civilisation may depend on whether we can bring about such a change. It will depend, ultimately, on our ability to adopt some of the 'yin' attitudes of Eastern mysticism; to experience the wholeness of Nature and the art of living with it in harmony...

PAUL DAVIES:

Paul Davies is a writer and eminent professor of theoretical physics. He is strongly interested in the interpenetration of physics and religion, and in *God and the New Physics*, he discusses the apparently vast number of extraordinary coincidences needed to produce a universe capable of supporting life, a fact which contemporary science is at a loss to explain:

...Given a random distribution of [gravitating] matter, it is overwhelmingly more probable that it will form a black hole than a star or a cloud of dispersed gas. These considerations give a new slant, therefore, to the question of whether the Universe was created in an ordered or disordered state. If the initial state were chosen at random, it seems exceedingly probable that the big bang would have coughed out black holes rather than dispersed gases. The present arrangement of matter and energy, with matter spread thinly at relatively low density, in the form of stars and gas clouds would, apparently, only result from a very special choice of initial conditions. Roger Penrose has computed the odds against the observed Universe appearing by accident, given that the black-hole cosmos is so much more likely on a priori grounds. He estimates a figure of 10 raised to the power of 10 raised to the power of 30 [i.e. $10^{10^{30}}$] to one...

...The upshot of these considerations is that the gravitational arrangement of the Universe is bafflingly regular and uniform. There seems to be no obvious reason why the Universe did not go berserk, expanding in a chaotic and uncoordinated way, producing enormous black holes. Channeling the explosive violence into such a regular and organised pattern of motion seems like a miracle. Is it? Let us examine various responses to this mystery:

1. **HIDDEN PRINCIPLE:**

One could envisage a principle (or set of principles) which required, for example, the explosive vigour of the big bang to exactly match its gravitating power everywhere, so that the receding galaxies just escaped their own gravity...

Unfortunately, it cannot be that simple. If the Universe were exactly uniform, then no galaxies would have formed anyway. According to present understanding, it seems that the growth of galaxies from the primeval gases can only have occurred in the time available since the creation if the rudiments were present from the outset... If a fundamental principle does exist, it seems that it must allow just enough deviation from uniformity to permit the growth of galaxies, but not so much as to produce black holes. A delicate and complicated balancing act indeed!

2. **DISSIPATION:**

One possible explanation for the uniformity of the cosmic expansion is to suppose that the Universe started out with a highly non-uniform motion, but somehow dissipated the turbulence away...

...Two objections have been raised against this scenario. The first is that, however efficient the dissipation of primeval turbulence may be, it is always possible to find initial states which are so grossly distorted that a vestige will remain, in spite of the damping. At best one can only succeed in showing that the Universe must have belonged to a class of remarkable initial states.

The second objection is that all dissipation generates entropy. The violence of the primeval turbulence would be converted into enormous quantities of heat, far in excess of the observed quantity of the primeval heat radiation...

3. **ANTHROPIC PRINCIPLE:**

Because a Universe full of black holes, or turbulent large scale motions is unlikely to be conducive to life, there is clearly room for an anthropic explanation of the uniformity of the Universe... One may envisage an [infinity] of universes covering every possible choice of initial expansion motion and distribution of matter. Only in the minute fraction which comes close to the arrangement in the observed Universe would life and observers form...

4. **INFLATION:**

Very recently an entirely new approach to the cosmic uniformity problem has been suggested. It originates with the grand unified theories, and depends crucially on a number of assumptions about ultra-high energy matter which are debatable, and in any case hard to verify. Nevertheless it vividly demonstrates how an advance in fundamental physics can change our whole perspective of the origin of order in the Universe...

5. **GOD:**

If the grand unified theories fail, and if the anthropic argument is rejected, then the highly uniform nature of the Universe on the large scale might be advanced as evidence for a creative designer. It would, however, be negative evidence only. No one could be sure that future progress in our understanding of the physics of the early Universe might not uncover a perfectly satisfactory explanation for an orderly cosmos...

...There is, however, more to Nature than its mathematical laws and its complex order. A third ingredient requires explanation too: the so-called fundamental constants of Nature. It is in that province that we find the most surprising evidence for a grand design.

Let us look at a simple example due to Freeman Dyson. The nuclei of atoms are held together by the strong nuclear force whose origins lie with the quarks and gluons... If the force were weaker than it is, atomic nuclei would become unstable and disintegrate. [In deuterium, the link between the proton and the neutron] would be broken by quantum disruption if the nuclear force were only a few percent weaker. The effect would be dramatic. The sun, and most other stars, uses deuterium as a link in [the fusion reaction]. Remove deuterium and either the stars go out, or they [must] find a new nuclear pathway to generate their heat.

Equally dire consequences would ensue if the nuclear force were very slightly stronger. It would then be possible for two protons to overcome their mutual electric repulsion and stick together... In a world where the nuclear force was a few percent stronger, there would be virtually no hydrogen left over from the big bang. Although we do not know why the nuclear force has the strength it does, if it did not the Universe would be totally different in form. It is doubtful if life could exist.

What impresses many scientists is not so much the fact that alterations in the values of the fundamental constants would change the structure of the physical world, but that the observed structure is remarkably sensitive to such alterations. Only a minute shift in the strengths of the forces brings about a drastic change in the structure. Consider as another example the relative strengths of the electromagnetic and gravitational forces in matter. Both forces play an essential role in shaping the structure of stars...

...[Two types of stars, blue giants and red dwarfs] delimit a very narrow range of stellar masses. It so happens that the balance of forces inside stars is such that nearly all stars lie in this very narrow range between the blue giants and the red dwarfs. However, as pointed out by Brandon Carter, this happy circumstance is entirely the result of a remarkable numerical coincidence between the fundamental constants of Nature. An alteration in, say, the strengths of the gravitational force by a mere one part in 10^{40} would be sufficient to throw out this numerical coincidence. In such a world, all stars would either be blue giants or red dwarfs. Stars like the sun would not exist, nor, one might argue, would any form of life that depends on solar-type stars for its sustenance...

...It is hard to resist the impression that the present structure of the Universe, apparently so sensitive to minor alterations of the numbers, has been rather carefully thought out. Such a conclusion can, of course, only be subjective. In the end, it boils down to a question of belief. Is it easier to believe in a cosmic designer than the multiplicity of universes necessary for the weak anthropic principle to work?... Perhaps future developments in science will lead to more direct evidence for other universes, but until then, the seemingly miraculous concurrence of numerical values that Nature has assigned to her fundamental constants must remain the most compelling evidence for an element of

cosmic design...

(God and the New Physics) (28)

Davies would be the first to affirm that all this proves nothing, or almost nothing. But this '*almost nothing*,' is absolutely profound in its own right. It has been wryly expressed by Arthur Eddington as "*...something Unknown is doing we don't know what...*"

QUANTUM THEORY AND THE IMPLICATIONS OF BELL'S THEOREM:

Quantum Theory relates to the world of atomic particles. The implications of the theory are so extraordinary, however, that they are beginning to demand a change in the way in which we perceive everyday reality:

...Physicists had known for some time that certain processes, such as radioactivity, seem to be random and unpredictable. While large numbers of radioactive atoms obey the laws of statistics, the exact moment of decay of an individual atomic nucleus cannot be predicted. This fundamental uncertainty extends to all atomic and subatomic phenomena, and requires a radical revision of commonsense beliefs to explain it. Before atomic uncertainty was discovered in the early part of this century, it was assumed that all material objects complied strictly with the laws of mechanics, which operate to keep the planets in their orbits, or direct the bullet towards its target...In the 1920s it was discovered that the atomic world is full of murkiness and chaos. A particle such as an electron does not appear to follow a meaningful, well-defined trajectory at all. One moment it is found here, the next there. Not only electrons, but all known subatomic particles - even whole atoms - cannot be pinned down to a specific motion. Scrutinised in detail, the concrete matter of daily experience dissolves into a maelstrom of fleeting, ghostly images.

Uncertainty is the fundamental ingredient of the quantum theory. It leads directly to the consequence of unpredictability... The quantum factor... apparently [violates causality] by allowing effects to occur that have no cause.

Already in the twenties, controversy raged over the meaning behind the unpredictable face of atoms. Is Nature inherently capricious, allowing electrons and other particles to simply pop about at random, without rhyme or reason - events without a cause? Or are these particles like corks being tossed about on an unseen ocean of microscopic forces?

Most scientists, under the leadership of the Danish physicist Niels Bohr, accepted that atomic uncertainty is truly intrinsic to Nature: the rules of clockwork might apply to familiar objects such as snooker balls, but when it comes to atoms, the rules are truly those of roulette. A dissenting, albeit distinguished, voice was that of Albert Einstein. "God does not play dice", he declared. Many ordinary systems, such as the stock market or the weather, are also unpredictable. But that is only because of our ignorance. If we had complete knowledge of all the forces concerned, we could (in principle at least) anticipate every twist and turn.

The Bohr-Einstein debate is not just one of detail. It concerns the entire conceptual structure of science's most successful theory. At the heart of the subject lies the bald question: is the atom a thing, or just an abstract construct of the imagination useful for explaining a wide range of observations? If an atom really exists as an independent entity then at the very least it should have a location and a definite motion. But the quantum theory denies this. It says that you can have one or the other but not both.

This is the celebrated uncertainty principle of Heisenberg, one of the founders of the theory. It says you can't know where an atom, or electron, or whatever, is located and know how it is moving, at one and the same time. Not only can you not know it, but the very concept of an atom with a definite location and motion is meaningless...

...According to Bohr, the fuzzy and nebulous world of the atom only sharpens into concrete reality when an observation is made. In the absence of an observation, the atom is a ghost. It only

materialises when you look for it. And you can decide what to look for. Look for its location and you get an atom at a place. Look for its motion and you get an atom with a speed. But you can't have both. The reality that the observation sharpens into focus cannot be separated from the observer and his choice of measurement strategy...

...In the 1930s Einstein conceived of an experiment which he believed would expose the fraud of the quantum ghosts, and establish once and for all that every event has a distinct cause. The experiment is based on the principle that the multitude of ghosts do not act independently, but in collusion. Suppose, said Einstein, that a particle explodes into two fragments, and these fragments are allowed to travel undisturbed, a long way apart. Although well separated, each fragment will carry an imprint of its partner. For example, if one flies off spinning clockwise the other, by reaction, will spin anti-clockwise.

The ghost theory claims that each fragment will be represented by more than one potential possibility. To pursue the example, fragment A will have two ghosts, one spinning clockwise, the other anti-clockwise. Which ghost becomes the real particle has to await a definite measurement or observation. Similarly, the oppositely-moving partner, fragment B, will also be represented by two counter-spinning ghosts. However, if a measurement of A promotes, for instance, the clockwise ghost to reality, B has no choice: it must promote its anti-clockwise ghost. The two separated ghost particles must cooperate with each other to comply with the law of action and reaction...

Bohr replied that Einstein's reasoning assumed the two fragments are independently real because they are well separated. In fact, asserted Bohr, it is not possible to regard the world as made up of lots of separated bits. Until a measurement is actually performed, both A and B must be regarded as a single totality, even if they are light years apart. This is holism indeed!

The real test of Einstein's challenge had to await post-war developments. In the 1960s, the physicist John Bell proved a most remarkable theorem about experiments of the Einstein type. He showed, quite generally, that the degree of cooperation between separated systems cannot exceed a certain definite maximum, if along with Einstein, one assumes that the fragments really do exist in well-defined states prior to their observation. In contrast, the quantum theory predicts that this limit can be exceeded. What was needed was an experiment...

...Several such experiments have been performed, but by far the best was carried out in 1982 at the University of Paris by Alain Aspect and colleagues. For subatomic particles, they used two photons of light emitted simultaneously by an atom. Stationed in the path of each photon was a piece of polarising material... Again, photons A and B cooperate, because their polarisations are forced by action and reaction to be parallel. If photon A is blocked, so is B.

The real test comes when the two pieces of polarising material are oriented obliquely to each other. The cooperation then declines because the polarisations of the photons cannot now both be aligned with their respective polarisers. And it is here that the Bohr-Einstein controversy can be settled. Einstein's theory predicts considerably less cooperation than Bohr's.

So what was the result?

Bohr wins, Einstein loses...

...So long as Nature's rebelliousness is restricted to the microworld, many people will feel only slightly uneasy that the concrete reality of the world "out there" has dissolved. In daily life a chair is still a chair, is it not?

Well - not quite.

Chairs are made of atoms. How can lots of ghosts combine together to make something real and solid? And what about the observer himself? What is so special about a human being that gives him the power to focus the fuzziness of atoms into sharp reality? Does the observer have to be human? Will a cat suffice, or a computer?...

(God and the New Physics) (28)

It could be argued, of course, that Bell's theorem may apply to the “artificial” world of the laboratory, but in the “real” world it is a different matter. However, it is obvious that in the real world things are continually interacting with each other. The clearest example of this is in the phenomena of inertia. According to Mach's principle, when a particle changes its state of motion it reacts instantaneously against every other particle in the Universe, even those which may be ten billion light years away! If all wave/particles in the Universe are continually interacting, and brain processes are the result of the interaction of wave/particles, then we're led inexorably to the conclusion that brain processes (and hence our thoughts) are connected to the totality of the Universe in a fundamental way.

Einstein believed that the anomalous behaviour of matter at the level of fundamental particles would eventually be explained by a 'hidden principle.' This may possibly be found to be true in the future, but the basic thesis remains unshaken. As Gary Zukav writes in *The Dancing Wu Li Masters*:

...To summarise, Bell's theorem showed, in 1964, that either the statistical predictions of quantum theory are false or the principle of local causes is false. In 1972, Clauser and Freedman performed an experiment at Berkeley which validated the relevant statistical predictions of quantum theory. Therefore, according to Bell's theorem, the principle of local causes must be false.

The principle of local causes says that what happens in one area does not depend upon variables subject to the control of an experimenter in a distant space-like separated area. The simplest way to explain the failure of the principle of local causes is to conclude that what happens in one area does depend upon variables subject to the control of an experimenter in a distant space-like separated area. If this explanation is correct, then we live in a non-local Universe (locality fails) characterised by superluminal (faster than light) connections between apparently “separate parts”.

However, there are other ways in which the principle of local causes can fail. The principle of local causes is based on two tacit assumptions. The first tacit assumption is that we have the ability to determine our own actions, i.e. that we have a free will. The second tacit assumption is that when we choose to do one thing in place of another, “what would have happened if...” would have produced definite results. These two assumptions together are what Stapp calls contrafactual definiteness.

If the first assumption (contrafactualness) fails, then we are led to a superdeterminism which precludes the idea of alternative possibilities. According to this type of determinism, it is not possible that the world ever could have been other than it is.

If the second assumption (definiteness) fails, then we are led to the “Many Worlds” theory in which the world continuously is splitting into separate and mutually inaccessible branches, each of which contains different editions of the same actors performing different acts at the same time on different stages which somehow are located in the same place.

There may be still other ways to understand the failure of the principle of local causes, but the very fact that it must fail means that the world is in some way profoundly different from our ordinary ideas about it.

*Perhaps we really **are** living in a dark cave...*

(The Dancing Wu Li Masters) (54)

EUGENE MARAIS:

“Go to the ant... consider her ways, and be wise...”

Proverbs 6:6

One suspects that the remarkable South African lawyer, journalist and naturalist, Eugene Marais (1872 - 1936) learned something of the meaning of life from his studies of white ant colonies. By sinking a shaft deep underground and studying a colony during one particular period of relentless African drought, he observed the struggle to carry water to the nest and “gardens” from a depth of forty metres:

...I had the opportunity of watching their struggle for existence for months and of learning and understanding step by step all that was happening. During this time I visited the shaft at all hours of the day and night from sunset to sunrise, and never for one moment did I discover any cessation of the infinite labour. Nor was there even the least slackening. Once I marked a number of workers with aniline blue and could establish the fact that they never rested or slept, that they worked by day and night, that the same workers who were marked by day were busy at night climbing up and down.

It is noteworthy that in the beginning I did not get the impression of haste and alarm which I perceived so clearly some time later. There were two streams of workers, those on the right going down, those on the left going up, and this order was maintained to the very last... The workers I marked took, in the beginning, about half an hour to reach the end of the shaft and return to the nest with their load from the depths. Later on this period shortened until it became about twenty minutes...

...My own inference was that... the heightened circulation... [had] the object of conveying water to the queen, larvae and soldiers. I knew that the queen was merely a bag of liquid; that she laid on an average one hundred and fifty thousand eggs every twenty-four hours, and that for the purpose of all her functions she must require a constant and copious supply of water...

...But the provision of water to the living termites was not the only reason for this quickened pulse. When I exposed the outer gardens, I noticed there, on a line dividing the gardens in two there was a constantly crawling throng of termites. I had forgotten that for the king and queen, for larvae and soldiers, these gardens were just as necessary as a water supply. The gardens, as I explained before, are digestive organs without which the community could not exist for even one day.

All of the above-mentioned types are entirely dependent on the gardens, for the workers are the only type which can make use of partially digested food. The gardens are the stomach and liver of the composite animal. The workers are the mouth and teeth. Long and careful observation was necessary to enable me to understand what the enormous concentration on the gardens meant. At last I noticed that all the gardens external to the line I have mentioned were parched and that this death of the gardens was creeping inward from day to day. It was on this line dividing the dead gardens from the living that I found the greatest concentration of activity. It took the form of a terrific onslaught, engaged in with such fury that the workers and soldiers could spare no moment for rest. It was a mighty struggle against death's stealthy approach; there was no respite for the defenders day or night.

The workers were engaged in replanting hyphae round the living gardens, and in irrigating these freshly planted seeds; and every little seed, every drop of moisture, had to be carried [forty metres] out of the depths of the earth... During the night the defenders would gain ground. During this cool period when evaporation was at its lowest ebb the line would be pushed outwards [six to twelve millimetres]. During the heat of the day, however, the enemy would press heavily and gain the hardly won advance.

It was at night, during the hours when the rest of Nature was quietest, that the fierceness of the fight gained most frenzy. I could hear distinctly the unceasing alarm calls of the soldiers, a sound which roused in me a feeling of terrible anxiety. My electric searchlight revealed the restless stream constantly passing to and fro, as sure and indomitable as fate itself. Nothing could turn them from their purpose, no external terror could distract them. The death of a thousand individuals made not the least impression on that living stream. Vaguely and faintly, I began to realise, as I watched, what the struggle for existence really means in Nature...

(*The Soul of the White Ant*) (97)

The processes of the white ant colony have a subtle relevance to that of the human organism: biologists today regard multi-cellular organisms, including human beings, more in terms of 'colonies' than the apparently single entities that we perceive on the outside. The biologist Lewis Thomas states the case superbly:

...A good case can be made for our nonexistence as entities. We are not made up, as we had always

supposed, of successively enriched packets of our own parts. We are shared, rented, occupied. At the interior of our cells, driving them, providing the oxidative energy that sends us out for the improvement of each shining day, are the mitochondria, and in a strict sense they are not ours. They turn out to be separate creatures, the colonial posterity of migrant prokaryotes, probably primitive bacteria that swam into ancestral precursors of our eukaryotic cells and stayed there. Ever since, they have maintained themselves and their ways, with their own DNA and RNA quite different from ours. They are as much symbionts as the rhizobial bacteria in the roots of beans. Without them, we would not move a muscle, drum a finger, think a thought.

Mitochondria are stable and responsible lodgers, and I choose to trust them. But what of the other little animals, similarly established in my cells, sorting and balancing me, clustering me together? My centrioles, basal bodies, and probably a good many other more obscure tiny beings at work inside my cells, each with its own genome, are as foreign, and as essential, as aphids in anthills. My cells are no longer the pure line entities I was raised with; they are ecosystems more complex than Jamaica Bay.

I like to think that they work in my interest, that each breath they draw for me, but perhaps it is they who walk through the local park in the early morning, sensing my senses, listening to my music, thinking my thoughts...

...We carry stores of DNA in our nuclei that may have come in, at one time or another, from the fusion of ancestral cells and the linking of ancestral organisms in symbiosis. Our genomes are catalogues of instructions from all kinds of sources in Nature, filed for all kinds of contingencies. As for me, I am grateful for differentiation and speciation, but I cannot feel as separate an entity as I did a few years ago, before I was told these things, nor, I should think, can anyone else...

(The Lives of a Cell) (69)

Marais was also recognised as a pioneer in the study of primates in the wild. He wrote *My Friends the Baboons*, and later *The Soul of the Ape* as a record of his experiences. It is poignant to note that he personally endured a struggle reminiscent of that of the white ant colony which he had studied and documented. Suffering from depression, and plagued for many years by ill-health and a subsequent addiction to morphine, he took his own life at the age of sixty-four.

ROBERT M. PIRSIG:

In *Zen and the Art of Motorcycle Maintenance: an odyssey in search of meaning and identity*, Pirsig writes of his search for something he terms *Quality*, which he identifies with *The Good* of Plato, the *Tao* of Chinese philosophy, and thus ultimately with the Absolute:

...He began to see that he had shifted away from his original stand. He was no longer talking about a metaphysical trinity, but an absolute monism. Quality was the source and substance of everything.

A whole new flood of philosophic associations came to mind. Hegel had talked like this, with his Absolute Mind. Absolute Mind was independent too, both of objectivity and subjectivity.

However, Hegel said the Absolute Mind was the source of everything, but then excluded romantic experience from the "everything" it was the source of. Hegel's Absolute was completely classical, completely rational and completely orderly.

Quality was not like that.

Phaedrus remembered Hegel had been regarded as a bridge between Western and Oriental philosophy. The Vedanta of the Hindus, the Way of the Taoists, even the Buddha had been described as an absolute monism similar to Hegel's philosophy. Phaedrus doubted at the time, however, whether mystical Ones and metaphysical monisms were introconvertable since mystical Ones follow no rules and metaphysical monisms do. His Quality was a metaphysical entity, not a mystic One. Or was it? What was the difference?

He answered himself that the difference was one of definition. Metaphysical entities are defined. Mystical Ones are not. That made Quality mystical. No. It was really both. Although he'd thought of it purely in philosophical terms up to now as metaphysical, he had all along refused to define it. That made it mystic too. Its indefinability freed it from the rules of metaphysics.

Then, on impulse, Phaedrus went over to his bookshelf and picked out a small, blue, cardboard-bound book. He'd hand-copied this book and bound it himself years before, when he couldn't find a copy for sale anywhere. It was the 2400-year-old Tao Te Ching of Lao Tzu. He began to read through the lines he had read many times before, but this time he studied it to see if a certain substitution would work. He began to read and interpret it at the same time.

He read:

*The quality that can be defined is not the Absolute Quality.
(That was what he had said)*

The names that can be given it are not the Absolute names.

It is the origin of Heaven and Earth.

*When named it is the Mother of all things...
(Exactly.)*

Quality (romantic Quality) and its manifestations (classic Quality) are in their nature the same. It is given different names (subjects and objects) when it becomes classically manifest.

Romantic Quality and classic Quality together may be called the "mystic."

Reaching from mystery into deeper mystery, it is the gate to the secret of all life.

Quality is all-pervading.

And its use is inexhaustible!

Fathomless!

Like the fountainhead of all things...

Yet crystal clear like water it seems to remain.

I do not know whose Son it is.

An image of what existed before God.

Continuously, continuously it seems to remain. Draw upon it and it serves you with ease...

Looked at but cannot be seen... listened to but cannot be heard... grasped at but cannot be touched... these three elude all our enquiries and hence blend and become one.

*Not by its rising is there light,
Not by its sinking is there darkness.*

*Unceasing, continuous
It cannot be defined
And reverts again into the realm of nothingness.*

*That is why it is called the form of the formless
The image of nothingness
That is why it is called elusive.*

*Meet it and you do not see its face
Follow it and you do not see its back*

*He who holds fast to the Quality of old
Is able to know the primeval beginnings
Which are the continuity of Quality...*

Phaedrus read on through line after line, verse after verse of this, watched them match, fit, slip into place. Exactly. This was what he meant. This was what he'd been saying all along, only poorly, mechanistically. There was nothing vague or inexact about this book. It was as precise and definite as it could be. It was what he had been saying, only in a different language with different roots and origins. He was from another valley seeing what was in this valley, not now as a story told by strangers but as a part of the valley he was from. He was seeing it all.

He had broken the code.

He read on. Line after line. Page after page. Not a discrepancy. What he had been talking about all the time as Quality was here the Tao, the great central generating force of all religions, Oriental and Occidental, past and present, all knowledge, everything...

Pirsig argues that the concept of the trinity of coequal principles, The Good, The True and The Beautiful, was undermined by Aristotle, who tended to relegate The Beautiful and The Good to lesser roles. Truth was held to be supreme, and this concept, becoming an integral part of the Western mythos, laid the foundation for the development of science and gave Western Man his apparent power over Nature, along with the corresponding decline of ethos which we are witnessing today.

He continues the exploration of Quality in *Lila*, the sequel to *Zen*:

...He walked back to the boat in a kind of relaxed, nothing-to-do way, thinking about nothing whatsoever. Then he remembered when he had been walking down a dirt road like this one near Lame Deer, Montana, on the Northern Cheyenne reservation. It was with Dusenberry and John Wooden Leg, the tribe's chief, and a woman named LaVerne Madigan from the Association of American Indians.

So long ago. So many things had happened. He would have to get back to the Indians someday. That was where he had started from and that was where he had to get back to.

He remembered that it had been spring then, which is a wonderful time in Montana, and the breeze blowing down from the pine trees carried a fresh smell of melting snow and thawing earth, and they were all walking down the road, four abreast, when one of those raggedy nondescript dogs that call Indian reservations home came onto the road and walked pleasantly in front of them.

They followed the dog silently for a while.

Then LaVerne asked John, "What kind of dog is that?"

John thought about it and said, "That's a good dog."

LaVerne looked curiously at him for a moment and then looked down at the road. Then the corners of her eyes crinkled and as they walked on Phaedrus noticed she was sort of smiling and chuckling to herself.

Later when John had left, she asked Dusenberry, "What did he mean when he said 'That's a good dog.' " Was that just Indian talk?

Dusenberry thought for a while and said he supposed it was. Phaedrus didn't have any answer either, but for some reason he had been amused and puzzled as LaVerne was.

A few months later she was killed in an airplane crash, and a few years after that Dusenberry was gone too and Phaedrus' own hospitalisation and recovery had clouded over the memory of that time and he'd forgotten all about it, but now suddenly, out of nowhere, here it was again.

For some time now he'd been thinking that if he were looking for proof that "substance" is a cultural

heritage from Ancient Greece rather than an absolute reality, he should simply look at non-Greek-derived cultures. If the “reality” of substance was missing from those cultures he would prove he was right.

Now the image of the raggedy dog was back and he realised what it meant.

LaVerne had been asking the question within an Aristotelian framework. She wanted to know what generic, substantive pigeonhole of canine classification this object walking in front of them could be placed in. But John Wooden Leg never understood the question. That's what made it so funny. He wasn't joking when he said “That's a good dog.” He probably thought she was worried the dog might bite her. The whole idea of a dog as a member of a hierarchical structure of intellectual categories known generically as “objects” was outside his traditional cultural viewpoint.

What was significant, Phaedrus realised was that John had distinguished the dog according to its Quality, rather than according to its substance. That indicated he considered Quality more important.

Now Phaedrus remembered when he had gone to the reservation after Dusenberry's death and told them he was a friend of Dusenberry's they had answered “Oh, yes, Dusenberry. He was a good man.” They always put their emphasis on the good, just as John had with the dog. A white person would have said he was a good man or balanced the emphasis between the two words. The Indians didn't see man as an object to whom the adjective “good” may or may not be applied. When the Indians used it they meant good is the whole center of experience and that Dusenberry, in his nature, was an embodiment or incarnation of this centre of life...

...And he remembered that Franz Boas had said that in a primitive culture people speak only about actual experiences. They don't discuss what is virtue, good, evil, beauty; the demands of their daily life, like those of our uneducated classes, don't extend beyond the virtues shown on definite occasions by definite people, good or evil deeds of their fellow tribesman, and the beauty of a particular man, woman or object. They don't talk about abstract ideas. But Boas said, “The Dakota Indian considers goodness to be a noun rather than an adjective.”...

...Good is a noun. That was it. That was what Phaedrus had been looking for. That was the homer, over the fence, that ended the ball game. Good as a noun rather than an adjective is all the Metaphysics of Quality is about. Of course, the ultimate Quality isn't a noun or an adjective or anything else definable, but if you had to reduce the whole Metaphysics of Quality to a single sentence, that would be it...

(Lila) (93)

RON PENNER:

In the journal of the International Society for Philosophical Enquiry, Penner proposes a hypothesis of a “Second Axial Period,” a period of immensely important religious, cultural and philosophical revolution, which he sees as occurring here and now:

If we were to imagine any planet in the Universe upon which conscious and intelligent beings had evolved, it would be reasonable to posit three or four major crises all such species would eventually have to face if they were to culturally evolve and avoid ultimate extinction. Eventually the death rate would be reduced to less than the birth rate and overpopulation would result; key natural resources, minerals, and especially non-nuclear energy resources would become depleted; the power of the atom would be discovered, both fission and fusion, resulting in immensely greater powers of destruction; and the systematic synthesis of chemical compounds never before present on the planet would begin, thus non-biodegradable by natural processes.

Assuming they had reached a level of technology in which knowledge was essentially indestructible and communication between all sectors of the planet almost instantaneous, the critical problems

posed by these accomplishments would remain with them - not for generations or centuries or millennia or as far into the future as they in imagination could project - but to the very end of their history. Needless to say, all these conditions have converged for the first time on this planet within our twentieth century; we are now passing through a unique bottleneck in planetary history. (The analogy of a sudden, brief adolescence of historical man seems appropriate.) Yet whatever solutions we devise to meet these challenges, whatever national, regional, or international institutions we as Mankind devise to resolve and dissolve these problems, they will not disappear. The best that can be hoped for is a neutralisation which may remove them to the twilight of our consciousness and reduce them to shadows on the horizon. But the problems themselves can hardly become ghosts or shadows, but looming potentials and probabilities for the...future. They will remain.

We are all today, in varying degrees, lacking the spiritual resources to deal with this totality, spiritual resources which throughout human history it has been the function of world religions to provide and instill. For all present world religions, save the sophisticated animism of the Amerindians, have fundamentally dealt with two primary categories, Man and God and their interpenetrations, but the natural world must be added as a third and equal partner in this synthesis...

Penner goes on to outline the beginnings of current religious thought in the "First Axial Period":

...The question of how and why the major world religions arose remains a mystery. That they resulted from deep upheavals in thought, from a period of intense questioning and introspection seems likely; that they issued solely from the minds and spirits of a troubled few, no matter how gifted, as a purely or even primarily intellectual activity, seems most unlikely. Karl Jaspers, the German philosopher of history, has termed the period in which these religions primarily had their genesis the Axial Period, a brief 600 years, from roughly 800 to 200 BC; the Axial Period - an axis upon which all subsequent history turns, during which time Mankind for the first time becomes fully conscious of Man, a Being who is an integral part of, and must come to terms with, the Cosmos. He writes of the accomplishments and characteristics of this period:

The most extraordinary events are concentrated in this period. Confucius and Lao Tzu were living in China, all the schools of Chinese philosophy came into being, including those of Mo-Ti, Chuang Tzu, Lieh-Tzu, and a host of others; India produced the Upanishads and Buddha and, like China, ran the whole gamut of philosophical possibilities down to scepticism, to materialism, sophism and nihilism; in Iran, Zarathustra taught a challenging view of the world as a struggle between good and evil; in Palestine the prophets made their appearance, from Elijah, by way of Isaiah and Jeremiah, to Deutero-Isaiah; Greece witnessed the appearance of Homer, of the philosophers - Parmenides, Heraclitus and Plato - of the tragedians, Thucydides and Archimedes. Everything implied by these names developed during these few centuries almost simultaneously in China, India and the West, without any one of these regions knowing of the others.

Penner's perception of history and the ethical and moral crises that are developing, lead him to propose his hypothesis of a Second Axial Period:

...I believe we must pass through a Second Axial Period if Mankind is to survive with any sense of dignity and ultimate purpose upon this planet, to be true to the heightened sense of spiritual awareness of the First Axial Period. In that period Mankind first encountered the Universe and the Universal within the flux of turbulent history, searching for ultimate meanings, uniting the transient with the Eternal, the Infinite with the particular. In the Second Axial Period, we must, I believe, somehow become united in spirit and deed, in thought and the ordering of all human activities, to the Natural World...

...The Second Axial Period, if it comes, shall be initiated by a Question which shall gradually expand in import and significance until recognised clearly to be an ultimate question with the concomitant Despair inadequate answers shall evoke. Yet the non-intellectual side of such a question is an emotional apprehension, an apprehension that we have desanctified the Earth, have converted it into nothing more than a tool box for the satisfaction of our wants, that our demands upon this planet are

far in excess of any benefits we are capable of conferring upon it, preserving a slender but tenacious hold which we never doubted was anything other than ours by right, yet a premise we never really examined...

...The creation and moulding of new, pragmatic visions of Man's role in and physical adjustment to the natural environment shall be the central preoccupation, almost obsession of the redemptive phase. A fundamental recategorization and restructuring of language itself - to make it a less anthropocentric instrument, far more equitably dividing the total fund of words and terminology among all known natural phenomena would seem an appropriate program to be implemented sometime during this phase, uniting in one activity two main streams of twentieth century philosophy, the analytic-linguistic tradition of Wittgenstein, and Existentialism. Engineering shall become a spiritual activity as it is now often an aesthetic activity, and visions, incredibly difficult to discover and devise and fulfill, requiring the cumulative creative activity of centuries, probably incapable of complete attainment shall appear on the horizon, yet within reach. Utopia is the land to which Mankind is always arriving, never to arrive...

(The Second Axial Period: An hypothesis) (34)

IRIS MURDOCH:

Iris Murdoch taught philosophy at Oxford University, but also achieved a substantial reputation as a novelist and from her poetry and plays. Influenced initially by the philosophy of the existentialists, particularly Sartre, in her later career she was to become attracted to some aspects of Platonism, particularly with regard to the interrelationship of morality and the concept of the absolute Form of Good. She expresses her difficulty in dealing on the one hand with such an impersonal Principle, and the other, the narrow materialism of science and positivist philosophy. Her books *The Sovereignty of Good* and *The Fire and the Sun* were based on this theme:

*"...I have suggested that moral philosophy needs a new and, to my mind, more realistic, less romantic, terminology if it is to rescue thought about human destiny from a scientifically-minded empiricism which is not equipped to deal with the real problems. Linguistic philosophy has already begun to join hands with such an empiricism, and most existentialist thinking seems to me either optimistic romancing or else something positively Luciferian... However, at this point someone might say, all this is very well, the only difficulty is that none of it is true. Perhaps all is vanity, **all** is vanity, and there is no respectable way of protecting people from despair. The world just is hopelessly evil and should you, who speak of realism, not go all the way towards being realistic about this? To speak of Good in this portentous manner is simply to speak of the old concept of God in a thin disguise. But at least 'God' could play a consoling and encouraging role. It makes sense to speak of loving God, a person, but very little sense to speak of loving Good, a concept. 'Good' even as a fiction is not likely to inspire, or even be comprehensible to, more than a small number of mystically minded people who, being reluctant to surrender 'God,' fake up 'Good' in his image, so as to preserve some kind of hope. The picture is not only purely imaginary, it is not even likely to be effective. It is very much better to rely on simple popular utilitarian and existentialist ideas, together with a little empirical psychology, and perhaps some doctored Marxism, to keep the human race going. Day-to-day empirical common sense must have the last word. All specialised ethical vocabularies are false. The old serious metaphysical quest had better now be let go, together with the outdated concept of God the Father..."*

"...If one does not believe in a personal God there is no 'problem' of evil, but there is the almost insuperable difficulty of looking properly at evil and human suffering and sin, in others or in oneself, without falsifying the picture in some way while making it bearable..."

"...the spectacle of huge and appalling things can indeed exhilarate, but usually in a way which is less than excellent. Much existentialist thought relies upon such a 'thinking reed' reaction which is nothing more than a form of romantic self-assertion. It is not this which will lead a man on to unselfish behaviour in the concentration camp. There is, however, something in the serious attempt

to look compassionately at human things which automatically suggests that 'there is more than this'. The 'there is More than this', if it is not to be corrupted by some form of quasi-theological finality, must remain a very tiny spark of insight, something with, as it were, a metaphysical position, but no metaphysical form. But it seems to me the spark is real, and that great art is evidence of its reality. Art indeed, so far from being a playful diversion of the human race, is the place of its most fundamental insight, and the centre to which the more uncertain steps of metaphysics must constantly return..."

"...I have throughout this paper assumed that 'there is no God' and that the influence of religion is waning rapidly. Both these assumptions may be challenged. What seems beyond doubt is that moral philosophy is daunted and confused, and in many quarters discredited and regarded as unnecessary. The vanishing of the philosophical self, together with the confident filling in of the scientific self, has led in ethics to an inflated and yet empty conception of the will, and it is that which I have been chiefly attacking. I am not sure how far my positive assertions make sense. The search for unity is deeply natural, but like so many things which are deeply natural may be capable of producing nothing but a variety of illusions. What I feel sure of is the inadequacy, indeed the inaccuracy, of utilitarianism, linguistic behaviourism, and current existentialism in any of the forms with which I am familiar. I also feel that moral philosophy ought to be defended and kept in existence as a pure activity, or fertile area analogous in importance to unapplied mathematics or pure 'useless' historical research. Ethical theory has affected society, and has reached as far as to the ordinary man, in the past, and there is no good reason to think that it cannot do so in the future. For both the collective and individual salvation of the human race, art is doubtless more important than philosophy, and literature most of all. But there can be no substitute for pure, disciplined, professional speculation: and it is from these two areas, art and ethics, that we must hope to generate concepts worthy, and also able, to guide and check the increasing power of science..."

(The Sovereignty of Good) (106)

JOYCE CAROL OATES:

Joyce Carol Oates has been highly-acclaimed as a novelist and was professor of English at the University of Windsor in Ontario, Canada. In an essay *New Heaven and Earth*, she writes of the change in consciousness which is capable of being forged through the perennial philosophy, and of the need to see the terror and tension of global Change within its context, and to transcend it:

...In spite of current free-roaming terrors in this country, it is really not the case that we are approaching some apocalyptic close. Both those who seem to be awaiting it with excitement and dread and those who are trying heroically to comprehend it in terms of recent American history are mistaking a crisis of transition for a violent end. Even Charles Reich's much maligned and much misinterpreted "The Greening of America", which was the first systematic attempt to indicate the direction we are moving in, focuses much too narrowly upon a single decade in a single nation and, in spite of its occasional stunning accuracy, is a curiously American product - that is, it imagines all of history as running up into and somehow culminating in the United States. Consider Reich's last two sentences:

...For one almost convinced that it was necessary to accept ugliness and evil, that it was necessary to be a miser of dreams, it is an invitation to cry or laugh. For one who thought the world was irretrievably encased in metal and plastic and sterile stone, it seems a veritable greening of America.

Compare that with the following passage from Teilhard de Chardin's "The Phenomenon of Man", a less historical-nationalistic vision:

...In every domain, when anything exceeds a certain measurement, it suddenly changes its aspect, condition or nature. The curve doubles back, the surface contracts to a point, the solid disintegrates, the liquid boils, the germ cell divides, intuition suddenly bursts upon the piled-up facts...Critical points have been reached, rungs on the ladder, involving a change of state

- jumps of all sorts in the course of development...

Or consider these lines from D.H. Lawrence's poem "Nullus," in which he is speaking of the private "self" that is Lawrence but also of the epoch in which this self exists:

...There are said to be creative pauses, pauses that are as good as death, empty and dead as death itself. And in these awful pauses the evolutionary change takes place.

What appears to be a breaking-down of civilisation may well be simply the breaking-up of old forms by life itself (not an eruption of madness or self-destruction), a process that is entirely natural and inevitable. Perhaps we are in the tumultuous but exciting close of a centuries-old kind of consciousness - a few of us like theologians of the medieval church encountering the unstoppable energy of the Renaissance. What we must avoid is the paranoia of history's "true believers," who have always misinterpreted a natural, evolutionary transformation of consciousness as being the violent conclusion of history.

The God-centred, God-directed world of the Middle Ages was transformed into the complex era we call the Renaissance, but the transition was as terrifying as it was inevitable, if the innumerable prophecies of doom that were made at the time are any accurate indication. Shakespeare's most disturbing tragedies - *King Lear*, and *Troilus and Cressida* - reflect that communal anxiety, as do the various expressions of anxiety over the "New Science" later in the seventeenth century. When we look back into history, we are amazed, not at the distance that separates one century from another, but at their closeness, the almost poetic intimacy...

...In many of us the Renaissance ideal is still powerful, its voice tyrannical. It declares: **I will, I want, I demand, I think, I am.** This voice tells us that we are not quite omnipotent but we must act as if we were, pushing out into a world of other people or of Nature that will necessarily resist us, that will try to destroy us, and that we must conquer. **I will exist** has meant only **I will impose my will on others.** To that end Man has developed his intellect and has extended his physical strength by any means possible because, indeed, at one time the world did have to be conquered. The Renaissance leapt ahead into its own necessary future, into the development and near perfection of machines. Machines are not evil, or even "unnatural," but simply expressions of the human brain. The designs for our machines are no less the product of our creative imaginations than are works of art, though it may be difficult for most people - especially artists - to acknowledge this. But a great deal that is difficult, even outrageous, will have to be acknowledged.

If technology appears to have dehumanised civilisation, this is a temporary failing or error - for the purpose of technology is the furthering of the "human," the bringing to perfection of all the staggering potentialities in each individual, which are nearly always lost, layered over with biological or social or cultural crusts. Anyone who imagines that a glorious pastoral world has been lost, through machines, identifies himself as a child of the city, perhaps a second- or third-generation child of the city. An individual who has lived close to Nature, on a farm, for instance, knows that "natural" man was never in Nature; he had to fight Nature, at the cost of his own spontaneity and, indeed, his humanity. It is only through the conscious control of the "machine" (i.e., through man's brain) that Man can transcend the miserable struggle with Nature, whether in the form of sudden devastating hailstorms that annihilate an entire crop, or minute deadly bacteria in the bloodstream, or simply the commonplace (but potentially tragic) condition of poor eyesight. It is only through the machine that Man can become more human, more spiritual...

...What will the next phase of human experience be? A simple evolution into a higher humanism, perhaps a kind of intelligent pantheism, in which all substance in the Universe (including the substance fortunate enough to perceive it) is there by equal right.

We have come to the end of, we are satiated with, the "objective" valueless philosophies that have always worked to preserve the status quo, however archaic. We are tired of the old dichotomies: *Sane / Insane, Normal / Sick, Black / White, Man / Nature, Victor / Vanquished*, and - above all this Cartesian dualism *I / It*. Although once absolutely necessary to get us through the exploratory, analytical phase as human beings, they are no longer useful or pragmatic. They are no longer **true**.

Far from being locked inside our own skins, inside the “dungeons” of ourselves, we are now able to recognise, quite naturally, that our minds belong to a collective “Mind”, a mind in which we share everything that is mental, most obviously language itself, and that the old boundary of the skin is no boundary at all but a membrane connecting the inner and outer experiences of existence...This has always been a mystical vision, but more and more in our time it is becoming a rational truth. It is no longer the private possession of a Blake, a Whitman, or a Lawrence, but the public, articulate offering of a Claude Levi-Strauss, to whom anthropology is “part of a cosmology” and whose humanism is one that sees everything in the Universe, including man, in its own place. It is the lifelong accumulative statement of Abraham Maslow, the humanist psychologist who extended the study of psychology from the realm of the disordered into that of the normal and the “more-than-normal”, including people who would once have been termed mystics and been dismissed as irrational. It is the unique, fascinating voice of Buckminster Fuller, who believes that “human minds and brains may be essential in the total design” of the Universe. And it is the abrasive argument of R.D.Laing, the Freudian/post Freudian mystic, who has denied the medical and legal distinctions between “normal” and “abnormal” and has set out not only to experience but to articulate a metaphysical “illumination” whereby self and other become joined. All these are men of genius, whose training has been rigorously scientific. That they are expressing views once considered the exclusive property of mystics proves that the old dichotomy of Reason/Intuition has vanished or is vanishing.

As with all dichotomies, it will be transcended - not argued away, not battered into silence. The energies wasted on the old debates - Are we rational? Are we 90% Unconscious Impulses? - will be utilised for higher and more worthy human pursuits. Instead of hiding our most amazing, mysterious, and inexplicable experiences, we will learn to articulate and share them; instead of insisting upon rigid academic or intellectual categories...we will see how naturally they flow into one another, supporting and explaining each other. Yesterday's wildly ornate, obscure, poetic prophecies evolve into today's calm statements of fact.

The vision of a new, higher humanism or pantheism is not irrational but is a logical extension of what we now know. It may frighten some of us because it challenges the unquestioned assumptions that we have always held. But these assumptions were never ours. We never figured them out, never discovered them for ourselves; we inherited them from the body of knowledge created by our men of genius. Now men of genius, such as British physicist/philosopher Sir James Jeans, are saying newer, deeper things:

Today there is a wide measure of agreement, which on the physical side of science approaches almost to unanimity, that the stream of knowledge is heading towards a non-mechanical reality; the Universe begins to look more like a great thought than like a great machine. Mind no longer appears as an accidental intruder into the realm of matter; we are beginning to suspect that we ought rather to hail it as the creator and governor of the realm of matter...

Everywhere, suddenly, we hear the prophetic voice of Nietzsche once again, saying that man must overcome himself, that he must interpret and create the Universe. (Nietzsche was never understood until now, until the world caught up with him, or approached him). In such a world, which belongs to consciousness, there can be no distracting of energies from the need to push forward, to synthesise, to converge, to make a unity out of ostensible diversity. But too facile optimism is as ultimately distracting as the repetitive nihilism and despair we have inherited from the early part of this century. An absolutely honest literature, whether fiction or non-fiction, must dramatise for us the complexities of this epoch, showing us how deeply we act out, even in our apparently secret dreams, the communal crises of the world. If demons are reawakened and allowed to run loose across the landscape of suburban shopping malls and parks, it is only so that their symbolic values - wasteful terror, despair, entropy - can be recognised. If all the other dichotomies are ultimately transcended, there must still be a tension between a healthy acceptance of change and a frightened, morbid resistance to change. The death throes of the old values are everywhere around us, but they are not at all the same thing as the death throes of particular human beings. We can transform ourselves, overleap ourselves

beyond even our most flamboyant estimations. A conversion is always imminent; one cannot revert back to a lower level of consciousness. The “conversion” of the I-centred personality into a higher, or transcendental, personality cannot be an artificially, externally enforced event; it must be a natural event. It is surely as natural as the upward growth of a plant - if the plant’s growth is not impeded. It has nothing to do with drugs, with the occult, with a fashionable cultivation of Eastern mysticism (not at all suitable for us here in the West - far too passive, too life denying, too ascetic); it has nothing to do with political beliefs. It is not Marxist, not Communist, not Socialist, not willing to align itself with any particular ideology. If anything, it is a flowering of the democratic ideal, a community of equals, but not a community mobilised against the rest of the world, not a unity arising out of primitive paranoia...

*...at present we hear a very discordant music. We have got to stop screaming at one another. We have got to bring into harmony the various discordant demands, voices, stages of personality. Those more advanced must work to transform the rest, by being, themselves, models of sanity and integrity. The angriest of the ecologists must stop blaming industry for having brought to near perfection the implicit demands of society, as if anyone in society - especially at the top - has ever behaved autonomously, unshaped by that society and its history. The optimism of *The Greening of America* seems to me a bit excessive or at least a bit premature. There is no doubt that the future - the new consciousness - is imminent, but it may take generations to achieve it.*

(New Heaven and Earth) (33)

After 9/11, any new consciousness seems further away than ever. 'Generations' now seems like a very optimistic estimate.

ROBERT LANZA AND BOB BERMAN - BIOCENTRISM

Robert Lanza is a scientist in the fields of regenerative medicine and biology and Bob Berman is an astronomer and author. In their joint work *Biocentrism*, they argue, among other things, for the primacy of consciousness:

The universe is not only queerer than we suppose, but queerer than we can suppose.

John Haldane, Possible Worlds (1927)

The world is not, on the whole, the place described in our schoolbooks. For several centuries, starting roughly with the Renaissance, a single mindset about the construct of the cosmos has dominated scientific thought. This model has brought us untold insights into the nature of the universe—and countless applications that have transformed every aspect of our lives. But this model is reaching the end of its useful life and needs to be replaced with a radically different paradigm that reflects a deeper reality, one totally ignored until now. This new model has not arrived suddenly, like the meteor impact that changed the biosphere 65 million years ago. Rather, it is a deep, gradual, tectonic-plate-type alteration with bases that lie so deep, they will never again return whence they came. Its genesis lurks in the underlying rational disquiet that every educated person palpably feels today. It lies not in one discredited theory, nor any single contradiction in the current laudable obsession with devising a Grand Unified Theory that can explain the universe. Rather, its problem is so deep that virtually everyone knows that something is screwy with the way we visualize the cosmos. The old model proposes that the universe was, until rather recently, a lifeless collection of particles bouncing against each other, obeying predetermined rules that were mysterious in their origin.

The universe is like a watch that somehow wound itself and that, allowing for a degree of quantum randomness, will unwind in a semi-predictable way. Life initially arose by an unknown process, and then proceeded to change form under Darwinian mechanisms that operate under these same physical rules. Life contains consciousness, but the latter is poorly understood and is, in any case, solely a matter for biologists. But there’s a problem.

Consciousness is not just an issue for biologists; it's a problem for physics. Nothing in modern physics explains how a group of molecules in your brain create consciousness. The beauty of a sunset, the miracle of falling in love, the taste of a delicious meal—these are all mysteries to modern science. Nothing in science can explain how consciousness arose from matter. Our current model simply does not allow for consciousness, and our understanding of this most basic phenomenon of our existence is virtually nil. Interestingly, our present model of physics does not even recognize this as a problem. Not coincidentally, consciousness comes up again in a completely different realm of physics. It is well known that quantum theory, while working incredibly well mathematically, makes no logical sense. As we will explore in detail in future chapters, particles seem to behave as if they respond to a conscious observer. Because that can't be right, quantum physicists have deemed quantum theory inexplicable or have come up with elaborate theories (such as an infinite number of alternate universes) to try to explain it. The simplest explanation—that subatomic particles actually do interact with consciousness at some level—is too far outside the model to be seriously considered. Yet it's interesting that two of the biggest mysteries of physics involve consciousness.

But even putting aside the issues of consciousness, the current model leaves much to be desired when it comes to explaining the fundamentals of our universe. The cosmos (according to recent refinements) sprang out of nothingness 13.7 billion years ago, in a titanic event humorously labeled the Big Bang. We don't really understand where the Big Bang came from and we continually tinker with the details, including adding an inflationary period with physics we don't yet understand, but the existence of which is needed in order to be consistent with our observations. When a sixth grader asks the most basic question about the universe, such as, "What happened before the Big Bang?" the teacher, if knowledgeable enough, has an answer at the ready: "There was no time before the Big Bang, because time can only arise alongside matter and energy, so the question has no meaning. It's like asking what is north of the North Pole." The student sits down, shuts up, and everyone pretends that some actual knowledge has just been imparted. Someone will ask, "What is the expanding universe expanding into?" Again, the professor is ready: "You cannot have space without objects defining it, so we must picture the universe bringing its own space with it into an ever-larger size. Also, it is wrong to visualize the universe as if looking at it 'from the outside' because nothing exists outside the universe, so the question makes no sense." "Well, can you at least say what the Big Bang was? Is there some explanation for it?" For years, when my co-author was feeling lazy, he would recite the standard reply to his college students as if it were an after-business-hours recording: "We observe particles materializing in empty space and then vanishing; these are quantum mechanical fluctuations. Well, given enough time, one would expect such a fluctuation to involve so many particles that an entire universe would appear. If the universe was indeed a quantum fluctuation, it would display just the properties we observe!" The student takes his chair. So that's it! The universe is a quantum fluctuation! Clarity at last.

But even the professor, in his quiet moments alone, would wonder at least briefly what things might have been like the Tuesday before the Big Bang. Even he realizes in his bones that you can never get something from nothing, and that the Big Bang is no explanation at all for the origins of everything but merely, at best, the partial description of a single event in a continuum that is probably timeless. In short, one of the most widely known and popularized "explanations" about the origin and nature of the cosmos abruptly brakes at a blank wall at the very moment when it seems to be arriving at its central point. During this entire parade, of course, a few people in the crowd will happen to notice that the emperor seems to have skimmed in his wardrobe budget. It's one thing to respect authority and acknowledge that theoretical physicists are brilliant people, even if they do tend to drip food on themselves at buffets. But at some point, virtually everyone has thought or at least felt: "This really doesn't work. This

doesn't explain anything fundamental, not really. This whole business, A to Z, is unsatisfactory. It doesn't ring true. It doesn't feel right. It doesn't answer my questions. Something's rotten behind those ivy-covered walls, and it goes deeper than the hydrogen sulfide released by the fraternity rushers." Like rats swarming onto the deck of a sinking ship, more problems keep surfacing with the current model. It now turns out that our beloved familiar baryonic matter—that is, everything we see, and everything that has form, plus all known energies—is abruptly reduced to just 4 percent of the universe, with dark matter constituting about 24 percent. The true bulk of the cosmos suddenly becomes dark energy, a term for something utterly mysterious. And, by the way, the expansion is increasing, not decreasing.

In just a few years, the basic nature of the cosmos goes inside out, even if nobody at the office water cooler seems to notice. In the last few decades, there has been considerable discussion of a basic paradox in the construction of the universe as we know it. Why are the laws of physics exactly balanced for animal life to exist? For example, if the Big Bang had been one-part-in-a-million more powerful, it would have rushed out too fast for the galaxies and life to develop. If the strong nuclear force were decreased 2 percent, atomic nuclei wouldn't hold together, and plain-vanilla hydrogen would be the only kind of atom in the universe. If the gravitational force were decreased by a hair, stars (including the Sun) would not ignite. These are just three of just more than two hundred physical parameters within the solar system and universe so exact that it strains credulity to propose that they are random—even if that is exactly what standard contemporary physics baldly suggests. These fundamental constants of the universe—constants that are not predicted by any theory—all seem to be carefully chosen, often with great precision, to allow for the existence of life and consciousness (yes, consciousness raises its annoying paradoxical head yet a third time). The old model has absolutely no reasonable explanation for this. But biocentrism supplies answers, as we shall see. There's more. Brilliant equations that accurately explain the vagaries of motion contradict observations about how things behave on the small scale. (Or, to affix the correct labels on it, Einstein's relativity is incompatible with quantum mechanics.)

Theories of the origins of the cosmos screech to a halt when they reach the very event of interest, the Big Bang. Attempts to combine all forces in order to produce an underlying oneness—currently in vogue is string theory—require invoking at least eight extra dimensions, none of which have the slightest basis in human experience, nor can be experimentally verified in any way. When it comes right down to it, today's science is amazingly good at figuring out how the parts work. The clock has been taken apart, and we can accurately count the number of teeth in each wheel and gear, and ascertain the rate at which the flywheel spins. We know that Mars rotates in 24 hours, 37 minutes, and 23 seconds, and this information is as solid as it comes. What eludes us is the big picture. We provide interim answers, we create exquisite new technologies from our ever-expanding knowledge of physical processes, we dazzle ourselves with our applications of our newfound discoveries. We do badly in just one area, which unfortunately encompasses all the bottom-line issues: what is the nature of this thing we call reality, the universe as a whole? Any honest metaphorical summary of the current state of explaining the cosmos as a whole is . . . a swamp. And this particular Everglade is one where the alligators of common sense must be evaded at every turn. The avoidance or postponement of answering such deep and basic questions was traditionally the province of religion, which excelled at it. Every thinking person always knew that an insuperable mystery lay at the final square of the game board, and that there was no possible way of avoiding it. So, when we ran out of explanations and processes and causes that preceded the previous cause, we said, "God did it."

Now, this book is not going to discuss spiritual beliefs nor take sides on whether this line of thinking is wrong or right. It will only observe that invoking a deity provided something that was crucially required: it permitted the inquiry to reach some sort of agreed-upon endpoint. As recently as a century ago, science texts routinely cited God and “God’s glory” whenever they reached the truly deep and unanswerable portions of the issue at hand. Today, such humility is in short supply. God of course has been discarded, which is appropriate in a strictly scientific process, but no other entity or device has arisen to stand in for the ultimate “I don’t have a clue.” To the contrary, some scientists (Stephen Hawking and the late Carl Sagan come to mind) insist that a “theory of everything” is just around the corner, and then we’ll essentially know it all—any day now. It hasn’t happened, and it won’t happen. The reason is not for any lack of effort or intelligence. It’s that the very underlying worldview is flawed. So now, superimposed on the previous theoretical contradictions, stands a new layer of unknowns that pop into our awareness with frustrating regularity. But a solution lies within our grasp, a solution hinted at by the frequency with which, as the old model breaks down, we see an answer peeking out from under a corner. This is the underlying problem: we have ignored a critical component of the cosmos, shunted it out of the way because we didn’t know what to do with it. This component is consciousness...

(**Biocentrism**) (135)

FRED HOYLE AND CHANDRA WICKRAMASINGHE:

There is substantial and growing evidence that life exists throughout the Universe. Hoyle and Wickramasinghe were at the vanguard of the growing number of scientists who are coming to realise that the probability of life having been generated on Earth four billion years ago in the relatively short time (approximately 500 million years) from the formation of the Solar System was abysmally low. For much of this first 500 million years, the Earth consisted of hot (if not molten) rocks and highly toxic gases; this in itself would have made the emergence of life highly unlikely. Furthermore, the *hard* part in the development of life was to progress from the stage of inanimate matter to self-replicating molecules and then single cells. The relatively trivial part was to progress from single cells to multi-cellular creatures of the level of complexity of the higher mammals. The fact that this second stage took over three billion years means that we must re-evaluate our theories of the emergence of life, and in fact the emergence of the Universe. Recently, an increasing number of prominent scientists have become convinced that the early Earth was inoculated from space by single-cell life forms. An example of such thinking is:

...Manfred Schidlowski, of the Otto Hahn Institute in Mainz, West Germany, made the case that the emergence of life on Earth some four billion years ago, scarcely 500 million years after the Solar System formed, can best be explained “if the ancient Earth had been inoculated by extraterrestrial protobionts”. This does not require the guiding hand of intelligence, but suggests that prebiotic molecules arise naturally in space and infect all suitable planets with life...

(**New Scientist**) (76)

Organic compounds and cell-like structures occur in certain types of meteorites, and it has been shown that single-celled organisms are particularly well adapted to surviving for long periods in the conditions existent in deep space. If the Hoyle-Wickramasinghe hypothesis is confirmed it would necessarily mean that other highly developed multi-cellular life forms exist elsewhere in the Universe in similarly hospitable environments, and that the Universe is far older than is currently believed, perhaps infinitely old. Creatures elsewhere could be similar to, and even far more advanced than ourselves. Our concept of our place in the Universe may be in a stage of development comparable to that of the geocentric notions of pre-Copernican Europe.

In his book *The Intelligent Universe*, Professor Hoyle drew some conclusions from his theory:

...Because of the general harshness of physical conditions, most of life [in the Universe] is confined to microorganisms, which can thrive in environments that would be impossible for large multi-celled associations like ourselves. Occasionally, however, where conditions soften, as they did here on

planet Earth, some groups of microorganisms were able to build themselves into larger associations, and as the building process continued, more and more life forms emerged through the process we call evolution. The separation about 570 million years ago between the Cambrian and Precambrian, long recognised by geologists as a crucial transition point, marks the moment when life in more complex forms first secured a firm grip on the Earth. From that time onward the Earth became a rarity among planets, more and more so as terrestrial plants and animals increased in number and complexity of form. The Earth became still more of a rarity - a jewel among planets - as evolution proceeded from fish to reptiles, from reptiles to mammals, to monkeys and apes, and from these to Man, a creature who, in the words of the biochemist George Wald, turned back on the process that generated him and attempted to understand it.

With understanding came power, the power to annihilate as well as the power to survive. Other animals were slaughtered, at first for necessity, later for "sport". Other subspecies of Man were totally annihilated, and then the power to destroy became directed inwards, against our own subspecies itself. But always arrayed against the desire to destroy was an opposing instinct, an urge to build that created the churches and temples around the world. Alfred Russell Wallace expressed the instinct in words, describing it as a mysterious sanctity whereby truth is invested as the highest of virtues. Others might find the same instinct in the vistas of Elysian Fields to which Beethoven transports us in the slow movements of his late quartets.

The protective instinct in Man took a long step backwards from 1860 onwards. Whether Darwinism, with its philosophy that opportunism is all, was the cause of the Realpolitik that overwhelmed the world from 1860 onwards, or whether it was Realpolitik that spawned Darwinism, is hard to say, for the two went hand-in-hand, leading with mounting inevitability to two World Wars in the present century, and to a situation which looks increasingly like a one-way journey towards self-destruction for the whole of our species...

...Just as the Earth was at a transition point 570 million years ago, so it is today. The spectre of our self-destruction is not remote or visionary. It is ever-present with hands already on the trigger, every moment of the day. The issue will not go away, and it will not lie around forever, one way or another it will be resolved...

...If the Earth is to emerge as a place of added consequence, with Man of some relevance in the cosmic scheme, we shall need to dispense entirely with the philosophy of opportunism. While it would be no advantage I believe to return to older religious concepts, we shall need to understand why it is that the mysterious sanctity described by Wallace persists within us, beckoning us to the Elysian Fields, if only we will follow...

(The Intelligent Universe) (75)

LIBERATING EVOLUTIONARY THEORY FROM COLONIAL WORLDVIEWS:

"...The real interest of the old Indians was not to discover the abstract structure of physical reality but rather to find the proper road along which, for the duration of a person's life, individuals were supposed to walk. The colorful image of the road suggests that the universe is a moral universe. That is to say, there is a proper way to live in the universe: There is content to every action, behavior, and belief. The sum total of our life experiences has a reality. There is a direction to the universe, empirically exemplified in the physical growth cycles of childhood, youth, and old age, with the corresponding responsibility of every entity to enjoy life, fulfill itself, and increase in wisdom and the spiritual development of personality. Nothing has incidental meaning and there are no coincidences...."

COMMENTARY

ON THE FLOWERS OF EVIL:

Evil obviously exists in the world, but within the context of the perennial philosophy, one might argue that it arises due to ignorance of the true nature of reality. Primo Levi lived to tell his story of survival for eighteen months within Auschwitz during World War II. He wrote a best-selling book which outlined the highly effective process of dehumanization used in the camps:

“...in fact, the whole process of introduction to what was for us a new order took place in a grotesque and sarcastic manner. When the tattooing operation was finished, they shut us in a vacant hut. The bunks are made, but we are severely forbidden to touch or sit on them: so we wander about aimlessly for half the day in the limited space available, still tormented by the parching thirst of the journey...”

“...Driven by thirst, I eyed a fine icicle outside the window, within hand’s reach. I opened the window and broke off the icicle but at once a large, heavy guard prowling outside brutally snatched it away from me. ‘Warum?’ I asked him in my poor German. ‘Hier ist kein warum’ [there is no ‘why’ here], he replied, pushing me inside with a shove.”

“...The explanation is repugnant but simple: in this place everything is forbidden, because the camp has been created for that purpose. If one wants to live one must learn that quickly and well:

No Sacred Face will help thee here!

It’s not a Serchio bathing party...”

[Here Levi quotes from Dante's Inferno Canto XXI, where demons mockingly shout to the condemned souls entering the Inferno - Hell shall not be nearly as benign as where they have come from...]

"Hour after hour, this first long day of limbo draws to its end. While the sun sets in a tumult of fierce, blood-red clouds, they finally make us come out of the hut. Will they give us something to drink? No, they place us in line again..."

“...there are innumerable circumstances [in the camp], normally irrelevant, which here become problems... If a shoe hurts, one has to go in the evening to a ceremony of the changing of the shoes: this tests the skill of the individual who, in the middle of the incredible crowd, has to be able to choose at an eye’s glance one (not a pair, one) shoe, which fits. Because once the choice is made, there can be no second change.”

“And do not think that shoes form a factor of secondary importance in the life of the Lager. Death begins with the shoes; for most of us, they show themselves to be instruments of torture, which after a few hours of marching cause painful sores which become fatally infected. Whoever has them is forced to walk as if he was dragging a convict’s chain (this explains the strange gait of the army which returns every evening on parade)...He cannot escape if they run after him; his feet swell and the more they swell, the more the friction with the wood and the cloth of the shoes becomes insupportable. Then only the hospital is left: but to enter the hospital with the diagnosis of ‘dicke Fusse’ (swollen feet) is extremely dangerous, because it is well known to all, and especially to the SS, that there is no cure for that complaint...”

(If This Is a Man) (100)

The strategy, still effectually used today by brutal regimes, was to devastate the prisoner’s dignity such that they could more readily be perceived as “sub-human.” But within the context of the Perennial Philosophy, this error is still more momentous, and, consequently, more poignant:

“...I am the mast, the rudder, the steersman and the ship. I am the coral reef on which it founders....”

Jalal al-Din Rumi

And more to the point -

“...I am the wound, and rapier!

*I am the cheek, I am the slap!
I am the limbs, I am the rack!
The prisoner, the torturer!...*

The Flowers of Evil; Baudelaire

Arguably we should keep in mind, as we come to grips with the so-called "Axis of Evil," that we often tend to be our own worst enemy, in more ways than one. As Nietzsche put it:

"...Whoever fights with monsters should beware that he himself does not become a monster. And when you gaze long into an abyss, the abyss also gazes into you..."

ON BRIDGING THE "IS – OUGHT" GAP:

(Note that this section was written originally to stand alone and hence repeats some material contained in the main body of the text. As removing this would detract from the presentation of the thesis, I ask for the reader's indulgence in this case.)

The philosophical problem of Normativity is "how can the Is-Ought gap be bridged?" David Hume raised the question as to whether we can build up an ethical structure on a sound philosophical foundation, independently of externally-imposed morals.

Of all philosophers, I believe that Friedrich Nietzsche has gone farthest to bridging the gap. This may seem to be a very controversial stance, but I believe that it is one which can be thoroughly justified.

Nietzsche's friend and one-time lover Lou Andreas-Salome wrote of him that:

"...In Nietzsche there dwelt in continual warfare, side by side of one another and in turn tyrannising over one another, a musician of high talent, a thinker with a free orientation, a religious genius, and a born poet..."

(Friedrich Nietzsche in Seinem Werken) (16)

A free-thinker, certainly. A born poet, yes; *Thus Spake Zarathustra* would stand alone as great literature. Unfortunately, any music he produced has apparently been lost, so that must remain an open question. But a religious genius? Wasn't Nietzsche the atheist who is famous (or infamous) for having said "God is dead"?

Yes and No. This is a much subtler statement than it would first appear.

To understand Nietzsche's thinking, one must look at where he was coming from. His father, an uncle and a grandfather were Lutheran pastors. He was deeply indoctrinated by Christianity from childhood, but he sloughed off that heritage and subsequently became one of the greatest free thinkers of the 19th century. He had an intense loathing for orthodox Christian dogma, and this forced him to break away from Christian morals to develop his own ethos from first principles. He called this project the "revaluation of all values." In reference to the more progressive thinkers of the 19th century, Will Durant sums up Nietzsche's approach:

"...These men were brave enough to reject Christian theology, but they did not dare to be logical, to reject moral ideas, the worship of meekness and gentleness and altruism, which had grown out of that theology. They ceased to be Anglicans, or Catholics, or Lutherans; but they did not dare cease to be Christians..."

(The Story of Philosophy)

As another indication of where he was coming from, he acknowledged his debt to his intellectual "ancestors" who had gone before:

"...When I speak of Plato, Pascal, Spinoza, and Goethe, then I know that their blood rolls in mine"
and

"...My ancestors: Heraclitus, Empedocles, Spinoza, Goethe."

(Nietzsche: Philosopher, Psychologist, Antichrist)

One of Nietzsche's key teachers was Heraclitus. A core concept of Heraclitus was:

"...Things taken together are whole and not whole, something which is being brought together and brought apart, which is in harmony and in discord. Out of all things comes a unity, and out of a unity all things..."

In other words, Reality had to be seen at the same time as both a "One" and a "Many," a plurality within a unity. Very much in sympathy with this concept, Plato wrote:

"...I am myself a great lover of these processes of [reductionism] and [holism]; they help me to speak and think. And if I find any man who is able to see 'a One and a Many' in Nature, him I follow, and 'walk in his footsteps as if he were a god.' And those who have this art, I have hitherto been in the habit of calling dialecticians..."

(Phaedrus)

This concept was at the core of Nietzsche's development. The philosopher William James rightly stated that the problem of the One and the Many, of Monism and Pluralism is *"the most central of all philosophical problems,"* in that the answer given to it profoundly influences the approach and answers to all other philosophical problems.

Arguably the philosophical concept of the One and the Many interpreted in more spiritual terms is Panentheism. It has been acknowledged that Nietzsche's ideas are panentheistic:

"...From its inception, evolutionary Panentheism, however named, has influenced and found powerful expression among poets such as Wordsworth... Coleridge... Blake... Yeats... Hölderlin... Novalis... Hugo... Whitman; philosophers such as Emerson and Nietzsche..."

(Panentheism Across the World's Traditions)

And in Nietzsche's own words:

*"...We are really for a brief moment primordial being itself, feeling its raging desire for existence; the struggle, the pain, the destruction of phenomena, now appear necessary to us, in view of the excess of countless forms of existence which force and push one another into life, in view of the exuberant fertility of the universal Will... In spite of fear and pity, we are the happy living beings, not as individuals, but as the **one** living being, with whose creative joy we are united..."*

(The Birth of Tragedy)

On the other hand, there is a crucial sense in which Nietzsche would deeply resent the term "religion" being associated with his ideas. The word religion comes from the Latin *re – ligare*, "to bind." On the contrary, Nietzsche would expect any real thinker to be free. After his own experience with his upbringing, the last thing he would want is for a thinker to be bound to anyone, any thing, and in particular, any religion.

What "profound influence" then did the synthesis of Monism and Pluralism have on Nietzsche's philosophy...?

It is this: to Nietzsche, there is a rational way to act within his reality of the synthesis of the One and Many. The One is necessarily *amoral*, because there is nothing else with which to relate. The British philosopher F.H. Bradley expresses this from another viewpoint:

"...But how do we know that the Absolute is in any sense good? Actually Bradley denied that it was, in any proper meaning of the term, in which it stands for a contrast which holds only within the human sphere. Yet he did call the Absolute perfect. Essentially his line of thought is that all defects in individuals come from their finitude and conflicts with each other, from which arise such evils as malice, despair and so forth. The Absolute cannot be frustrated, since there is nothing beyond itself, it cannot strive, because it experiences itself in an eternal Now, which includes the strains of temporal existence within it, as we may hear a melody in a single act of apprehension, but which cannot as a whole be straining after anything and must therefore be content with itself, and therefore find nothing within itself not satisfactory when seen in context..."

(Theories of Existence)

However, in its furthest development, such a philosophy might oftentimes be manifested in what would appear to be "acting in a moral way." Here we should distinguish "morals," which are necessarily *externally*

imposed, from "principles," which are *internally generated*. Nietzsche's aim is to build the "*sovereign individual*" who acts not because he is bound by social mores but because he is a master of his own "*self*." This philosopher would look at the "*other*" (including, but not just limited to, people) and see himself reflected. If he accepted the principle of "*doing unto others as you would have them do unto you*," it would be solely because of its rationality, not as any "*eleventh commandment*." This standpoint is necessarily "*Beyond Good and Evil*":

"...Denying morality's normative authority is crucial to Nietzsche's critique. For he thinks that complying with morality is inimical to realizing the highest values — and, therefore, that those free spirits capable of realizing such values ought not comply with morality..."

(Normativity for Nietzschean Free Spirits) (132)

Nietzsche believed in nobility and that the noble must inherit the Earth if humanity is to progress. Nobility is defined as those who are by nature highly civilized, emotionally and intellectually strong and spiritual. Again, some of Nietzsche's words are apposite:

"...He who is spiritually rich and independent is also the most powerful man in any case..."

"...I have found strength where one does not look for it: in simple, mild, and pleasant people, without the least desire to rule - and, conversely, the desire to rule has often appeared to me a sign of inward weakness: they fear their own slave soul and shroud it in a royal cloak (in the end, they still become the slaves of their followers, their fame, etc.) The powerful natures dominate, it is a necessity, they need not lift one finger. Even if, during their lifetime, they bury themselves in a garden house..."

(Nachlass)

Nietzsche's concept of nobility has nothing to do with social class:

"...and it is possible that even yet there is more relative nobility of taste, and more tact for reverence among the people, among the lower classes of the people, especially among peasants, than among the newspaper-reading demimonde of intellect, the cultured class..."

(Beyond Good and Evil)

To Nietzsche, strength (or power) is something which is to be gained by overcoming *oneself*, not others. (Nietzsche's ideas of the "Will to Power" were profoundly misinterpreted and misappropriated by the Nazis, and this fact has given his philosophy an undeserved reputation within the English-speaking world.) As Walter Kaufmann puts it, his term "master race" was meant to refer to:

"...a future, internationally mixed, race of philosophers and artists who cultivate iron self-control."

(Nietzsche: Philosopher, Psychologist, Antichrist)

Thus Nietzsche's ideas, incomplete as they are, point towards a spiritual, amoral and non-religious framework which begins to rationally bridge the Is-Ought gap. Others have tried to build on Nietzsche's embryonic system, so far with little success. But it will be done:

"...All our great teachers and predecessors have at last come to a stop... It will be the same with you and me! But what does that matter to you and me! Other birds will fly farther! ..."

(Daybreak) (111)

ON THE DEATH OF "GOD":

Nietzsche suggested that without access to a spiritual Vision, we are, metaphorically speaking, drifting alone and rudderless within an Existence which is infinite in all directions. He extrapolates the torture and execution of Yehoshua Ben Yosef (Jesus of Nazareth) to proclaim the metaphor of the death of God. Now Man must learn to deal with the consequences:

...Have you not heard of that madman who lit a lantern in the bright morning hours, ran into the market place and cried incessantly: 'I am looking for God! I am looking for God!' – As many of those who did not believe in God were standing together there he excited considerable laughter. Have you lost him then? said one. Did he lose his way like a child? said another. Or is he hiding? Is he afraid of us? Has he gone on a voyage? Or emigrated? – thus they shouted and laughed. The madman sprang into their midst and pierced them with his glances. 'Where has God gone?' he cried.

I shall tell you. We have killed him – you and I. We are his murderers. But how have we done this? How were we able to drink up the sea? Who gave us the sponge to wipe away the entire horizon? What did we do when we unchained the Earth from its Sun?

Whither is it moving now? Whither are we moving now? Away from all suns? Are we not perpetually falling? Backward, sideward, forward, in all directions? Is there any up or down left? Are we not straying as through an infinite nothing? Do we not feel the breath of empty space? Has it not become colder? Is more and more night not coming on all the time? Must not all lanterns be lit in the morning? Do we not hear anything yet of the noise of the gravediggers who are burying God? Do we not smell anything yet of God's decomposition? – gods, too, decompose. God is dead. God remains dead. And we have killed him. How shall we, the murderers of all murderers, console ourselves? That which was holiest and mightiest of all that the world has yet possessed has bled to death under our knives – who will wipe this blood off us? With what water could we purify ourselves? What festivals of atonement, what sacred games shall we need to invent? Is not the greatness of this deed too great for us? Must we not ourselves become gods simply to seem worthy of it? There has never been a greater deed – and whoever shall be born after us, for the sake of this deed he shall be a part of a higher history than all history hitherto.'

Here the madman fell silent and again regarded his listeners; and they, too, were silent and stared at him in astonishment. At last, he threw his lantern to the ground and it broke and went out. 'I came too early,' he said then; 'my time has not yet come. This tremendous event is still on its way, still traveling – it has not yet reached the ears of men. Lightning and thunder require time, deeds require time after they have been done before they can be seen and heard. This deed is still more distant from them than the most distant stars – and yet they have done it for themselves.'

*It has been related further that on that same day the madman entered divers churches and there sang a **requiem æternum deo**. Led out and quieted, he is said to have retorted each time: 'What are these churches now if they are not the tombs and sepulchres of God?'*...

(The Gay Science)

(110)

Somewhat wistfully, Alexander Solzhenitsyn paid tribute to these “*tombs and sepulchres of God*” which remained in his native Russia after half a century of communism. God had been almost completely obliterated in pursuit of Marx's dialectical materialism in the Soviet Union, but the aftermath was appropriately “demoralizing”:

...When you travel the by-roads of Central Russia you begin to understand the secret of the pacifying Russian countryside.

It is in the churches. They trip up the slopes, ascend high hills, come down to the broad rivers, like princesses in white and red, they lift their bell-towers – graceful, shapely, all different – high over mundane timber and thatch, they nod to each other from afar, from villages that are cut off and invisible to each other they soar to the same heaven. And wherever you wander in the fields or meadows, however far from habitation, you are never alone... some bell-tower will beckon to you.

But when you get into the village you find that not the living but the dead greeted you from afar. The crosses were knocked off the roof or twisted out of place long ago. The dome has been stripped, and there are gaping holes between its rusty ribs. Weeds grow on the roofs and in the cracks in the walls... The murals over the altar have been washed by the rains for decades and obscene inscriptions written over them.

People were always selfish and often unkind. But the evening chimes used to ring out, floating over villages, fields and woods. Reminding men that they must abandon the trivial concerns of the world and give time and thought to eternity. These chimes... raised people up and prevented them from sinking down on all fours.

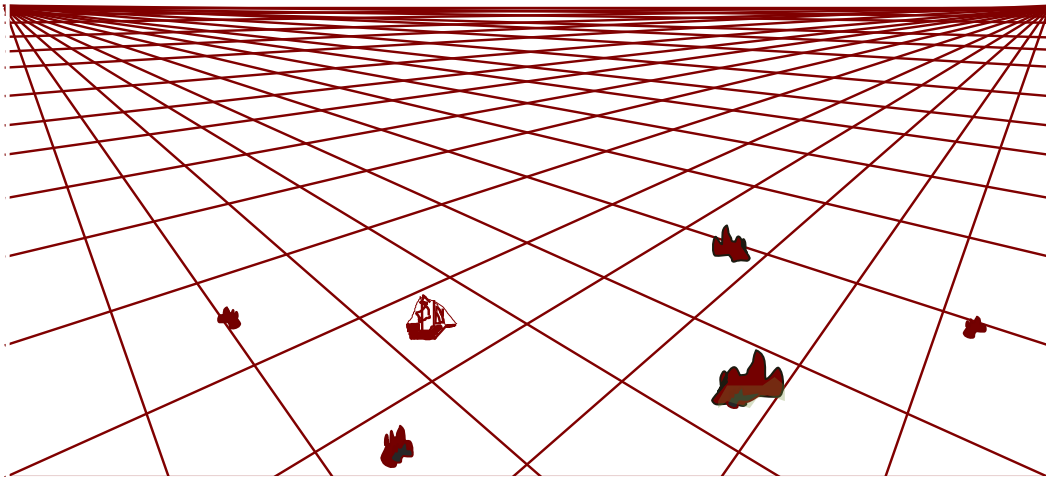
The dilemma portrayed by Solzhenitsyn and Nietzsche has never seemed more appropriate than at the beginning of the 21st century:

Horizon: infinity - We have left the land and have taken to our ship! We have burned our bridges - more, we have burned our land behind us! Now, little ship, take care! The Ocean lies all around you; true, it is not always roaring, and sometimes it lies there as if it were silken and golden and a gentle favourable dream. But there will be times when you will know that it is infinite, and that there is nothing more terrible than infinity... Alas, if homesickness for land should assail you, as if there were more freedom there - and there is no longer any "land."

(*The Gay Science*

Nietzsche)

(110)



Now, little ship, take care!

In retrospect, the 20th century has clearly been a period of strife, oppression and killing on a scale never before seen. The metaphorical Ocean of Reality lies about us as infinite and unforgiving, in its own way, as Outer Space. While it embraces an awesome beauty, we can also see treacherous 'reefs,' 'currents,' and 'storms,' in the form of overpopulation, alienation, the proliferation of nuclear, chemical and biological weapons, environmental destruction, economic and moral chaos, and religious fundamentalism.

This brings us back to Nietzsche's disturbing metaphor again -

...Whither are we moving now? Away from all suns? Are we not perpetually falling? Backward, sideward, forward, in all directions?...

...God is dead... And we have killed him....

...Is not the greatness of this deed too great for us? Must we not ourselves become gods simply to seem worthy of it?

The anthropomorphic, transcendent God of Athanasius had to be killed, but firmly replaced by Spinoza's "Deus sive Natura," (God or Nature), for indubitably "in [It] we live and move, and have our being."

ON COMING TO GRIPS WITH INFINITY:

What we have learned since the Renaissance through the visions of people such as Giordano Bruno and the great natural philosophers in general is at the same time appalling and exhilarating. Now we are thinking in terms of infinities of infinities:

...Copernicus is like tripping. You fall down. With Bruno you look up and see you've fallen at the edge of a great precipice and you're staring down into... a vast chasm. Space.

Endless, infinite space. Eternity...

...Ramon Mendoza in his brilliant book **The Acentric Labyrinth** sets forth the ultimate consequences, even now, of Bruno's cosmological vision that banished the geocentric, anthropocentric false world view:

The All is no longer necessarily a sea of billions of galaxies and clusters of galaxies; The All may be an infinite ocean of infinite universes. In this ocean, our insignificant tiny universe is only an island in the infinite archipelago of universes. Humanity has thereby been stripped for good of all its cherished centres. Riding on its speck of dust, humankind drifts aimlessly along the endless pathways of the labyrinth of universes – a labyrinth with no centre and no edges, no beginning in time, and no end.

Mendoza then goes on to say:

However, there is really no need for despair: by discovering our appalling spatio-temporal insignificance, we have come to realize the only title to greatness we still possess, and which has become, precisely in the process of this millenary quest for centres, all the more manifest and inspiring: the boundlessness and almost unlimited power of the human mind.

I think, in a way, the Renaissance saw this. And for a time it shone through...

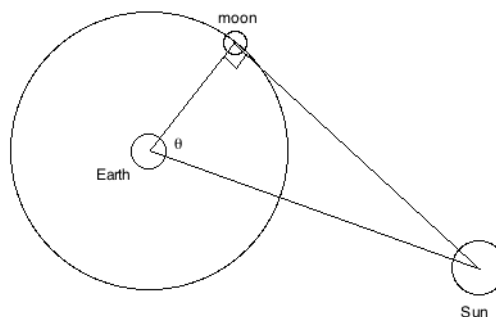
(*A Primer to Giordano Bruno* Julia Jones) (130)

The existence of an infinite number of parallel infinite universes may still be controversial and untestable, and hence unscientific, but that the All is infinite in some way is regarded as being highly likely. Any serious materialist has to accept the "whole box and dice." Both the Greeks and the Europeans of the Renaissance glimpsed the concept of Infinity. Aristarchus of Samos and Posidonius of Rhodes both attempted to measure the distance to the sun. Aristarchus was out by an order of magnitude, because he failed to take into account the refraction of the Sun's rays as they entered the Earth's atmosphere. Overall, however, his breakthrough in cosmology is unparalleled:

...Aristarchus brought out a book consisting of certain hypotheses, wherein it appears, as a consequence of the assumptions made, that the Universe is many times greater than 'universe' just mentioned. His hypotheses are that the fixed stars and the sun remain unmoved, that the earth revolves about the sun in the circumference of a circle, the sun lying in the middle of the orbit, and that the sphere of the fixed stars, situated about the same center as the sun, is so great that the circle in which he supposes the earth to revolve bears such a proportion to the distance of the fixed stars as the center of the sphere bears to its surface.

(*A History of Greek Mathematics*) (131)

His methodology of measuring the solar system was taken up and refined by Posidonius of Rhodes:



Posidonius' estimate of 500,000,000 stadia (92,500,000 km) was still about 38% too low but this, too, was an incredible achievement for his time. It was not until after the Renaissance that such a level of understanding would again begin to be equaled. As Mendoza says, Infinity is at the same time exhilarating and unsettling. And Nietzsche:

...But there will be times when you will know that it [Reality] is infinite, and that there is nothing more terrible than infinity...

It is arguable that it was no coincidence that the people of the Renaissance and ancient Greece both produced quantum leaps in human philosophical and cultural development.

In support of this proposition:

...The latter part of the sixteenth century was a period of great longings for knowledge by the educated class. Christopher Marlowe, poet, dramatist and friend of Shakespeare, in his play of "Tamburlaine," beautifully expresses the higher human aspirations of this period:

*Nature that formed us of four elements,
Warring within our breasts for regiment,
Doth teach us all to have aspiring minds;
Our souls, whose faculties can comprehend,
The wondrous architecture of the world,
And measure every wandering planet's course,
Still climbing after knowledge infinite.
And always moving as the restless spheres,
Will us to wear ourselves, and never rest,
Until we reach the ripest fruit of all...*

(*The Astronomy of Shakespeare*) (133)

ON ANOMIE:

The word *anomie* comes from the Greek: *a* - "without," and *nomos* - "law". Emile Durkheim used the word in the context of individuals as an absence or lack of standards and values. When applied to a community, anomie implies chaos or a breakdown of civilised life. Wikipedia writes of the latter:

...In Durkheim's view, traditional religion often provided the basis for the shared values which the anomic individual lacks. Furthermore, he argued that the division of labour that had been prevalent in economic life since the Industrial Revolution led individuals to pursue egoistic ends rather than seeking the good of a larger community....

...Dostoevsky, whose work is often considered a philosophical precursor to existentialism, often expressed a similar concern in his novels. In the *Brothers Karamazov*, the character Dmitri Karamazov asks his atheistic friend Ratikin, "...without God and immortal life? All things are lawful then, they can do what they like?..." Raskolnikov, the anti-hero of Dostoevsky's novel *Crime and Punishment*, puts this philosophy into action when he kills an elderly pawnbroker and her sister, later rationalizing this act to himself with the words, "...it wasn't a human being I killed, it was a principle!..."

Anomie is becoming increasingly manifest within contemporary society. There is not only a loss of spiritual dimension but also an increasing sense of alienation of the individual as the size of communities (i.e. the cities) increases. There is a critical need for *areté*, or virtue, at both individual and community levels. Arguably the quest for *areté* was always associated with a culture based on an intuitive and sophisticated understanding of our place in Nature. The spreading nihilism of the past two millennia has produced a profound Void within the soul of modern Man. Mankind has generally lost the ability to visualise where it is going and from where it has come:

...Whither is it moving now? Whither are we moving now? Away from all suns? Are we not perpetually falling? Backward, sideward, forward, in all directions? Is there any up or down left? Are we not straying as through an infinite nothing?..

Nietzsche *The Gay Science*

Our most important tool, analytical logic, can lead us only so far and then becomes impotent in trying to deal with a Reality of infinite complexity.

As individuals, our knowledge of *being* is balanced by the certainty of eventual *non-being*. Because we have no absolute answers to the difficult questions of life and death, most of us are obsessed with activities such as acquiring power, prestige or material wealth, furthering our careers, devoting ourselves to our families, and pursuing pleasure in other ways such as sensuality. It is no accident that drugs are becoming an increasingly important part of the scene. By concentrating intensely on these things, the existentialist predicament can be successfully ignored. As contemporary human beings, we differ primarily in the ways

in which we individually choose to “bury our heads in the sand.” Thoreau has something to say in this regard:

...The mass of men live lives of quiet desperation. What is called resignation is confirmed desperation. From the desperate city you go into the desperate country, and have to console yourself with the bravery of minks and muskrats. A stereotyped but unconscious despair is concealed even under what are called the games and amusements of mankind. There is no play in them, for this comes after work. But it is a characteristic of wisdom not to do desperate things.

When we consider what, to use the words of the catechism, is the chief end of man, and what are the true necessities and means of life, it appears as if men had deliberately chosen the common mode of living because they preferred it to any other. Yet they honestly think there is no choice left. But alert and healthy natures remember that the Sun rose clear. It is never too late to give up our prejudices...
(Walden) (32)

We need to rid ourselves of religion while holding on to philosophy and spirituality. Religion and spirituality are two very different and arguably incompatible things.

ON OUR MORAL DECADENCE:

Alexander Solzhenitsyn experienced first-hand the Gulags of the Soviet Union between 1945 and 1953, after offending Stalin’s dignity. After his release he became a dissident again upon the publication of his devastating exposé *The Gulag Archipelago* in 1973. Subsequently exiled to the West in 1974, he realised that he had left one disastrous system for another which was failing in a more subtle, but no less insidious way. When called on to deliver an address at Harvard University in 1978, he directly confronted the Western way of life, pointing to problems such as:

- widespread hedonism
- the concentration on legalism and human rights at the expense of individual responsibility
- the mindless abuse of the ideal of “Freedom,” creating what he termed “the abyss of human decadence”
- the bankruptcy of materialistic humanism.

He left himself open for much counter-criticism, but many of his ideas cannot be easily dismissed. For instance on hedonism:

“...If humanism were right in declaring that man is born to be happy, he would not be born to die. Since his body is doomed to die, his task on earth evidently must be of a more spiritual nature. It cannot be unrestrained enjoyment of everyday life. It cannot be the search for the best ways to obtain material goods and then cheerfully get the most out of them. It has to be the fulfillment of a permanent, earnest duty so that one's life journey may become an experience of moral growth; so that one may leave life a better human being than one started it. It is imperative to review the table of widespread human values. Its present incorrectness is astounding. It is not possible that assessment of the [Government's] performance be reduced to the question of how much money one makes or of unlimited availability of gasoline. Only voluntary, inspired self-restraint can raise man above the world stream of materialism...”

On Legalism:

“...Western society has given itself the organization best suited to its purposes, based, I would say, on the letter of the law. The limits of human rights and righteousness are determined by a system of laws; such limits are very broad. People in the West have acquired considerable skill in using, interpreting and manipulating law, even though laws tend to be too complicated for an average person to understand without the help of an expert. Any conflict is solved according to the letter of the law and this is considered to be the supreme solution. If one is right from a legal point of view, nothing more is required, nobody may mention that one could still not be entirely right, and urge self-restraint, a willingness to renounce such legal rights, sacrifice and selfless risk: it would sound

simply absurd. One almost never sees voluntary self-restraint. Everybody operates at the extreme limit of those legal frames. An oil company is legally blameless when it purchases an invention of a new type of energy in order to prevent its use. A food product manufacturer is legally blameless when he poisons his produce to make it last longer: after all, people are free not to buy it."

"I have spent all my life under a communist regime and I will tell you that a society without any objective legal scale is a terrible one indeed. But a society with no other scale but the legal one is not quite worthy of man either. A society which is based on the letter of the law and never reaches any higher is taking very scarce advantage of the high level of human possibilities. The letter of the law is too cold and formal to have a beneficial influence on society. Whenever the tissue of life is woven of legalistic relations, there is an atmosphere of moral mediocrity, paralyzing man's noblest impulses..."

And materialistic humanism:

"...As long as we wake up every morning under a peaceful sun, we have to lead an everyday life. There is a disaster, however, which has already been under way for quite some time. I am referring to the calamity of a despiritualized and irreligious humanistic consciousness."

"To such consciousness, man is the touchstone in judging and evaluating everything on Earth: [imperfect man, who is never free of pride, self-interest, envy, vanity, and dozens of other defects.] We are now experiencing the consequences of mistakes which had not been noticed at the beginning of the journey. On the way from the Renaissance to our [current day], we have enriched our experience, but we have lost the concept of a Supreme Complete Entity which used to restrain our passions and our irresponsibility. We have placed too much hope in political and social reforms, only to find out that we were being deprived of our most precious possession: our spiritual life. In the East, it is destroyed by the dealings and machinations of the ruling Party. In the West, commercial interests tend to suffocate it. This is the real crisis. The split in the world is less terrible than the similarity of the disease plaguing its main [sectors]..."

The Insufficiency of Materialism (127)

Significantly, Chinese civilization went through a period of philosophical development in the third century B.C.E, in which Legalism (rule by Law) and Confucianism (rule by Virtue) vied for primacy. Arguably there has to be a dynamic tension between the two principles, with a balance being carefully maintained. *Solzhenitsyn is effectively arguing for Virtue and an associated thing which the Confucians would term **Jen** - humanity, righteousness, propriety, wisdom, and faithfulness.*

The pre-eminence of the best of the ancient cultures, particularly those of Greece, India and China, coincided with a high point of the influence of the perennial philosophy. There is ample evidence, also, that much of the impetus for the Renaissance in Europe came from the rediscovery of the philosophy of classical Greeks such as Pythagoras, Plato and Aristotle. This tradition had been suppressed in Christian Europe, but had been preserved within the Islamic world. As is also well known, Copernicus studied and plagiarised the theories of the Pythagorean astronomer Aristarchus of Samos, and Kepler noted in a letter to Galileo *"...in this respect you follow Plato and Pythagoras, our true teachers..."* Each of these streams of thought stressed the fundamental nobility of Man - that we each and all share in the divine nature; this was directly opposed to the orthodox Christian concept of Man's inherent corruption (the doctrine of original sin). In the Renaissance, a quantum leap in the collective consciousness occurred, a humanistic surge, the effects of which we are still feeling today. The spiritual flame which burned in the Golden Age of Greece, and which flared again in the Renaissance must be nourished. In the Renaissance, for a few decades the enlightenment caused the retreat of the ignorance of the Dark Ages. In the East, the great civilisation of China was forged on the ethos of mutual obligation, *Jen* (universal love) and the culture implicit in Confucianism and Taoism. The spirit of excellence and creativity exhibited in the Renaissance, Ancient Greece, China and India is just a glimpse of what can be achieved.

Humanity arguably has to begin to forge a radically new consciousness in order to survive. There are signs

that the first tentative steps towards this may be emerging, just as materialism has reached its apogee. The new consciousness is only emerging amongst a relative few and it is glacially slow in its development. An instance of this emergence, perhaps, is the perception of Earth in terms of a vastly complex self-regulating organism. This concept is most fully developed in the so-called Gaia hypothesis:

[Consideration] of the ways in which the biosphere regulates the chemical composition of the air, the temperature on the surface of the Earth, and many other aspects of the planetary environment have led the chemist James Lovelock and the microbiologist Lynn Margulis to suggest that these phenomena can be understood only if the planet as a whole is regarded as a single living organism. Recognising that their hypothesis represents a renaissance of a powerful ancient myth, the two scientists have called it the Gaia hypothesis, after the Greek goddess of the Earth.

(The Turning Point) (9)

Within such a context, sadly, it follows that if we define a cancer as a holon in which the self-assertive tendency has eclipsed the integrative tendency, then it could be argued that Mankind has now become so within our Earth organism. Chaotic growth within any organism leads inexorably to its decay. This trend is already apparent in the growing corruption of our environment. Thus human society is becoming, and in many respects has become, alienated from the fundamental ground of our being - Nature. People still talk of “conquering Nature” or “harnessing Nature”, but an ethos must be developed in which Mankind lives in harmony *within* Nature. As Francis Bacon put it:

Natura non vincitur nisi parendo -

Nature is not to be conquered except by obeying it.

The mainstream within today’s so-called “advanced” societies is almost completely devoid of such an ethos. This **must** be rebuilt. There is only one outcome for an organism that fails to do this - the environment becomes unstable and hence the species becomes extinct.

Around five hundred years ago, Leonardo da Vinci foresaw what could result from our materialistic attitude to our fellow men and to Nature:

...Animals will be seen on the Earth who will always be fighting amongst themselves with the greatest damage and frequent deaths on each side. There will be no limit to their malignity; we shall see great areas of trees in the wide forests throughout the universe felled by their proud limbs, and when they are satiated with food, the nourishment of their desires will be to deal death and grief and toil and wars and fury to every living thing... Nothing will remain on the Earth or under the earth and water that will not be persecuted, relocated or ruined, and those of one country expelled to another... O Earth, why do you not open, and throw them into the steep fissures of thy great abysses and caverns, and display no more to Heaven such cruel and hateful monsters...

(19)

Similarly, Thomas Carlyle issued a warning to us of the danger of our one-dimensional thinking more than a century ago. In this era of the “*greed is good*” culture polluting the commercial and industrial domains, it is also remarkably apposite to our current situation:

...One thing I do know: Never, on this Earth, was the relation of man to man long carried on by cash-payment alone. If, at any time, a philosophy of laissez-faire, competition and supply-and-demand, start up as the exponent of human relations, expect that it will soon end...

(Past and Present) (72)

The devotees of a “free market,” unfettered by the consideration of non-tangible things such as ethics, often cite the ideas of Adam Smith in justification of their position, conveniently forgetting that Smith promoted the benefits of an *enlightened* self-interest. He affirmed the aims of the small business proprietor plying his trade humanely within his local community, not the global corporation that is totally amoral and has been increasing apparent, sometimes immoral.

...Smith wrote that we benefit from the self-interest of the butcher, brewer, and baker. He did not say selfishness! Even if this choice of words was pure happenstance, the conceptual difference is vital.

*It is clear from Smith's writings as a whole that, because they are self-interested, the butcher, brewer, and baker look out for themselves; however, because they are **not selfish**, they also care for their customers. What's more, in "sympathy" they care for their customers for their customers' sakes, not merely their own, and they know for certain that this is not something they can fake.*

This is what good business is all about! Although Smith did not appeal to it, those who remember from Scripture that we are all members of one body (1 Cor. 12:1–31) need not be astonished...

Adam Smith: Selfishness or Self-Interest? David Larson *Spectrummagazine.org*

As has been pointed out, Smith was strongly influenced by Stoicism, as was the author of the Epistle to the Corinthians.

ON AN ARGUMENT FOR LIMITED DUALISM:

A healthy individual must necessarily move simultaneously within both the realm of the One and the realm of the Many, of Dualism and Monism. Both rational analysis and holistic intuition are required in dealing with Reality. In isolation, each is incomplete and hence ultimately in error. The obvious analogy in Nature is the dual character of light; light must be described in terms pertaining to both particles and waves. No attempt to describe it wholly in terms of its wave nature, or wholly in terms of its particle nature, can succeed. The fact is that it is both holistic (wavelike) and discrete (particle-like). This applies for all matter and radiation; according to Fritjof Capra:

...This dual aspect of matter and radiation is indeed most startling and gave rise to many of the 'quantum koans' which led to the formation of the quantum theory. The picture of a wave which is always spread out in space is fundamentally different from the particle picture which implies a sharp location... The waves associated with particles, however, are not "real" three dimensional waves, like water waves or sound waves, but are "probability waves"; abstract mathematical quantities which are related to the probabilities of finding the particles in various places and with various properties...

This concept of the twofold nature leads then to the proposition that a completely holistic outlook, in which all the manifold forms of our external world are held to be illusory, is just as invalid as a completely rationalistic, fragmented and analytical outlook. Thus Russell's crucial point:

...contemplation, if it is to be wholesome and valuable, must be married to practice...

Within such a context, it could be argued that in our present circumstance it may be wise to reserve a degree of pragmatism for our daily strategies of life. For instance, we have a system of nation-states, each with "defence" forces, and we must confront this reality until it can be transcended. (This is changing; nations, even "superpowers" are finding it progressively harder to act completely independently). As Roman Emperor, the Stoic Marcus Aurelius knew the harsh reality of international relations. The Roman civilisation wasn't built in a day and neither will a society in which politics is based on the brotherhood of man. The idealistic Pharaoh Akhenaton tried naively to follow the ideal of universal brotherhood, but the result was almost disastrous for Egypt and its people. The Encyclopedia Britannica refers:

...The army commanders and high commissioners in Palestine and Syria were neglected. The local princes, who had seen their advantage in trading with Egypt, became despondent when Egypt did not answer their appeals for support. Hostile forces arose, ambitious princes in Palestine and Syria, invaders from the eastern desert, and the venturesome Hittites to the north...

Confucius recognised the difficulty in achieving universal peace. He quoted an old Chinese saying that "only if the right sort of people had charge of a country for a hundred years would it become really possible to stop cruelty and do away with slaughter." In today's context, we would have to substitute the term "a country" with "the world."

In order to be whole human beings and societies, both aspects of reality require due respect. As previously mentioned, one of the insights of Chinese philosophy was the recognition that "Life is the blended harmony of the Yin and the Yang," where Yin and Yang can be feminine and masculine, dark and light, weak and strong, or good and bad. Thus it could be said that while it is bad to have weapons, to act in accordance

with the Tao is to establish a balance (somewhat “bad”), while building bridges between our cultures to make the weapons redundant (the good). This need for a pragmatic outlook is illustrated in a quotation from Chuang Tzu:

The sayings, “Shall we not follow and honour the right and have nothing to do with the wrong?” and “Shall we not follow and honour those who secure good government and have nothing to do with those who produce disorder?” show a want of acquaintance with the principles of Heaven and Earth and with the different qualities of things. It is like following and honouring Heaven and taking no account of Earth; it is like following and honouring the Yin and taking no account of the Yang. It is clear that such a course cannot be pursued.

It’s very significant that Nature has had to invent the Masculine and Feminine principles in order to deal with the Reality of human existence. And the left and right hemispheres of the brain, which specialise in analytical and holistic thinking respectively; each is valid and true within its own context, yet incomplete, and in need of the other to supply a balance.

Another manifestation of the principle of complementarity within Nature can be seen in the relationship of plants to each other and their environment. Outwardly, the forest may seem to be a scene of idyllic peace and serenity. Individual elements of the forest combine to create an ecosystem which is beneficial to each of its parts. Within the forest, however, we know that vigorous competition takes place between the trees for nutrients and sunlight. In the case of deciduous trees, the period of new growth in spring is one of high vulnerability to insect attack and the tender new shoots are succulent and hence attractive to insects. Botanists have shown that if a tree suffers insect attack, it begins production of a variety of powerful toxins (which in some cases can include cyanide and strychnine) which render it relatively inedible; thus the attacker's action is turned against itself. At the same time the tree emits ethylene as a chemical messenger to be borne through the air to warn neighbouring trees of the attack in order that they may activate their own defence systems. Hence the degree of damage to the forest is limited, and the order of Nature is maintained by the principle of self-interest within the wider context of mutual help. In terms of its applicability to human society, this is a form of Adam Smith’s “enlightened self-interest,” and is in accordance with one of the fundamental tenets of systems theory.

The East Asian martial arts codes are a further example of application of the principle. They make use of the relatively subtle concept that the defender and the attacker are one, and the defender turns the attacker's force against him. In his book *Tao: The Watercourse Way*, Alan Watts discusses that philosophy's attitude to the use of force:

*...There is basic good sense in the Taoist view that we **must** make the desperate gamble of trusting ourselves and others. However, Lao Tzu makes the reservation, in describing his ideal community, that “though the people have weapons, they do not show them,” since weapons are, up to a point, a natural extension of teeth, claws, and shells. The Taoist view of Nature was not sentimental. It recognised that violence had sometimes to be used, but always with regret, for*

The best soldier is not soldierly;

The best fighter is not ferocious...

(62)

The martial arts are recognised as a valid way of dealing with Reality within the realm of the Many, and dualism is often an absolutely necessary mode of being. In names such as *Judo*, *Tae Kwan Do*, *Kendo*, *Aikido*, and *Bushido*, the *do* refers to the way, or tao, a particular expression of the Great Tao. For instance Judo means literally “*the gentle way*.”

Refer to https://en.wikipedia.org/wiki/Hegemonic_stability_theory for application to international relations.

Emerson comes to the concept from a Western perspective:

...Philanthropic and religious bodies do not commonly make their executive officers out of saints. The communities hitherto founded by Socialists - the Jesuits, The Port-Royalists, the American communities at New Harmony, at Brook Farm, at Zoar - are only possible, by installing Judas as steward. The rest of the offices may be filled by good burgesses. The pious and charitable proprietor has a foreman not quite so pious and charitable. The most amiable of country gentlemen has a certain

pleasure in the teeth of the bulldog which guards his orchard. Of the Shaker society, it was formerly a sort of proverb in the country, that they always sent the devil to market... It is an esoteric doctrine of society, that a little wickedness is good to make muscle...

Neither is there a conflict here with Jesus' philosophy. His disciples carried weapons and knew how to use them; this is beyond question. Consider the passage:

...And they said, Lord, behold, here are two swords.

And he said unto them, It is enough...

(Luke 22: 38)

Within any organism, cancer cells, by virtue of the fact that they pose a danger to the whole, are normally attacked and destroyed by the immune system. We may regard this occurrence as being somewhat regrettable, but it cannot be characterised as evil, because it takes place *within* the whole. So for the Absolute (or the Source or the One) being the only Reality, concepts of good and evil are not relevant; there is no other Being to which it can relate. The concept of goodness applies, then, only at the level of our individuality.

The “rule of thumb” to be used in considering the rightness of action involving conflict in the sphere of the Many should be to apply a combination of compassion, common sense, and the ultimate perspective of the Whole. The final judge of this can only be the conscience of the individual:

...How in this complex world, are we to know what our own duty is? There is no greater problem. Yet, somehow, we have to find our position and make our stand. For the majority, much self-analysis, much trial and error, would seem to be the only way. But, having found that position, we must accept it in its entirety. The soldier has many duties besides fighting. The pacifist has much else to do besides refusing to fight. These duties and responsibilities extend equally over wartime and peace: they cover our whole life. But, in every case, the final ideal is the same.

The Gita neither sanctions war nor condemns it. Regarding no action as of absolute value, either for good or evil, it cannot possibly do either. Its teaching should warn us not to dare to judge others. How can we prescribe our neighbour's duty when it is so hard for us to know our own? The pacifist must respect Arjuna. Arjuna must respect the pacifist...

(Vedanta for the West) (95)

The other horn of the dilemma is acknowledged in a Zen parable: a samurai warrior inquired of a teacher with regard to the nature of Heaven and Hell. The teacher immediately insulted the warrior to his face. As the warrior began to draw his sword, the teacher said, “*There lies the gate of Hell.*” Startled momentarily, the warrior realised what had taken place, and immediately began to return his sword to its scabbard. The teacher responded: “*There lies the gate of Heaven.*” It seems we’ve come across something like this before: “*...the mind is its own place, and in itself can make a Heav'n of Hell, a Hell of Heav'n...*”

The consequence of a fragmented and totally dualistic outlook can be seen in the current threat of terror and nuclear holocaust. This state of affairs is unsustainable. The Law of Survival for humanity in this technological age necessarily has benevolence as its heart. The World has arrived at the metaphorical “hour of midnight.” It is imperative that the right sort of people emerge to inherit the Earth.

ON THE LIMITATIONS OF MATERIALISTIC SCIENCE:

The modern word science derives from the Latin word *Scientia* - knowledge.

The term has come into use only since the 19th century, a time of unbridled optimism for the creed of Inevitable Progress. Prior to this, those who studied the natural world were called natural philosophers, a far more rational and multi-dimensional expression. It’s been claimed that we create our collective mythos principally through our language. If so, the implication of this particular change in our language, and hence of our collective reality, is that the knowledge of physical facts is all that the modern scientist need be concerned with. The scientist has arguably become less of a philosopher and more of a technician. Ethics and values have become empty concepts to a significant number within the profession. Regrettably, following on the success of the scientific method, disciplines such as anthropology, sociology, psychology, and to some extent philosophy, have styled themselves as the “social sciences,” carrying the implication

for some that they too are capable of being “value free.” For instance, philosophers of the logical positivist school hold with the doctrine that all statements that cannot be verified by sense perception - apart from those provable by mathematics or logic - are nonsensical. The Oxford philosopher A.J.Ayer summarised this as:

“...It is our business to give an account of ‘judgments of value’ which is both satisfactory in itself and consistent with our general empiricist principles. We shall set ourselves to show that insofar as statements of value are significant, they are ordinary ‘scientific’ statements, and insofar as they are not scientific, they are not in the literal sense significant, but are simply expressions of emotion, which are neither true nor false...”

Critique of Ethics and Theology

Thus concepts such as morality, feelings and aesthetics were essentially held to be “pseudo-concepts” which cannot be analysed in the same way as can the physical world, and hence are unworthy of rational discourse. Within this paradigm, they are in the domain of “metaphysics,” which for the logical positivists is a pejorative term.

The physicists Werner Heisenberg, Wolfgang Pauli and Niels Bohr pushed the envelope of logic in their development of quantum theory, and were profoundly troubled by the restricted worldview of the logical positivists:

“Some time ago there was a meeting of philosophers, most of them [logical] positivists, here in Copenhagen, during which members of the Vienna Circle played a prominent part. I was asked to address them on the interpretation of quantum theory. After my lecture, no one raised any objections or asked any embarrassing questions, but I must say this very fact proved a terrible disappointment to me. For those who are not shocked when they first come across quantum theory cannot possibly have understood it. Probably I spoke so badly that no one knew what I was talking about.”

Wolfgang objected: “The fault need not necessarily have been yours. It is part and parcel of the positivist creed that facts must be taken for granted, sight unseen, so to speak. As far as I remember, Wittgenstein says: The world is everything that is the case. The world is the totality of facts, not of things. Now if you start from that premise, you are bound to welcome any theory representative of the “case.” The positivists have gathered that quantum mechanics describes atomic phenomena correctly, and so they have no cause for complaint. What else we have to add - complementarity, interference of probabilities, uncertainty relations, separation of subject and object, etc. - strikes them as just so many embellishments, mere relapses into prescientific thought, bits of idle chatter that do not have to be taken seriously. Perhaps this attitude is logically defensible, but if it is, I for one can no longer tell what we mean when we say we have understood Nature.”

Niels [commented]: “For my part. I can readily agree with the positivists about the things they want, but not about the things they reject. All the positivists are trying to do is to provide the procedures of modern science with a philosophical basis, or, if you like, a justification. They point out that the notions of the earlier philosophies lack the precision of scientific concepts, and they think that many of the questions posed and discussed by conventional philosophers have no meaning at all, that they are pseudo problems and, as such, best ignored. Positivist insistence on conceptual clarity is, of course, something I fully endorse, but their prohibition of any discussion of the wider issues, simply because we lack clear-cut enough concepts in this realm, does not seem very useful to me - this same ban would prevent our understanding of quantum theory.”

“Positivists,” I tried to point out, “are extraordinarily prickly about all problems having what they call a prescientific character. I remember a book by Phillip Frank on causality, in which he dismisses a whole series of problems and formulations on the grounds that all of them are relics of the old metaphysics, vestiges from the period of prescientific or animistic thought. For instance he rejects the biological concepts of ‘wholeness’ and ‘entelechy’ as prescientific ideas and tries to prove that all statements in which these concepts are commonly used have no verifiable meaning. To him ‘metaphysics’ is a synonym for ‘loose thinking’ and hence a term of abuse.

*“This sort of restriction of language doesn’t seem very useful to me either,” Niels said. “You all know Schiller’s poem ‘The Sentences of Confucius’ which contains the memorable lines: ‘**The full mind is alone the clear, and truth dwells in the deeps.**’ The full mind, in our case, is not only an abundance of experience but also an abundance of concepts by means of which we can speak about our problems and about phenomena in general. Only by using a whole variety of concepts when discussing the strange relationship between the formal laws of quantum theory and the observed phenomena, by lighting this relationship up from all sides and bringing out its apparent contradictions, can we hope to effect that change in our thought processes which is a **sine qua non** of any true understanding of quantum theory...”*

(Quantum Questions) (26)

The historian Theodore Roszak believes that science has become a victim of its own “success.” He argues that it has lost legitimacy to a significant degree, and compares organised science to organised religion:

“...Just as the Church of the Renaissance Popes was a far cry from the Church of the martyrs in their catacombs, so the science of what Norbert Wiener once called the “science factories” is hardly that of Galileo in his workshop. It is a very different institution, and of necessity a far less appealing one. It has forfeited its human scale, and that is a grave loss. It means that science too, joins in the ethos of impersonal gigantism, which is among the most oppressive features of our Kafkaesque modern world. When the layman views science today, he no longer finds there a community of self-actualizing men and women pursuing their chosen calling with style, daring, and simple passion. Such individuals may, of course, be there; but they are lost from sight within an establishment of baroque complexity, an acronymous labyrinth of official hierarchies and elite conferences, of bureaus and agencies filled with rich careers and mandarin status...”

“...Nor have the natural scientists been alone in their haste to gain official patronage. The several behavioural science professions have been every bit as eager (if less successful) to cut themselves in on the prestige of government sponsorship. They have long lobbied for a nicely endowed National Foundation for the Social Sciences to match the National Science Foundation. Meanwhile they have accepted the support of military and paramilitary agencies to finance high-cost computerized research in counterinsurgency warfare and behavioural modeling. At times, their arguments have been as barefacedly nationalistic as that of any bomb physicist - as when Professor Kingsley Davis argued before Congress... that ‘the first nation which breaks through and manages to put social science on a footing at least as sound as that of the natural sciences will be way ahead of every other nation in the world. I would like to see the United States be that nation...’ ”

In conformity with this attitude, the behavioural psychologist B.F. Skinner in his book *Beyond Freedom and Dignity* called for restrictions on any individual freedoms which could hinder the development of his ideal “scientifically planned” society, in which the citizenry would be controlled and “conditioned” to be happy. Certainly, the system espoused by John B. Watson and B.F. Skinner was a consistent outgrowth of the logical positivist philosophy.

Roszak argues that the materialistic mythos created by organised science has led to our alienation from Nature and subsequent ecological misbehaviour:

“...Our ecological troubles are now common knowledge and hot politics; they require no detailed review here. What does need emphasis is the critical relationship between our environmental bad habits and the devolution of the scientific tradition.”

“It might seem unfair to lay blame for the impending environmental disaster at the doorstep of the scientists. Granted, the rape of the environment has been carried out, not by scientists, but by profiteering industrialists and myopic developers, with eager support of a burgeoning population greedy to consume more than Nature can provide and to waste more than Nature can clear away. But to absolve the scientific community from complicity in the matter is quite simply to ignore that science has been the only natural philosophy the Western world has known since the age of Newton. It is to ignore the key question: who provided us with the image of Nature that invited the rape and with the sensibility that has licensed it?... ”

“...The Judaeo-Christian estrangement from Nature was absorbed into the psychology of scientific knowledge, there to find a new epistemological dignity. Objective knowing is alienated knowing; and alienated knowing is, sooner or later, ecologically disastrous knowing. Before the Earth could become an industrial garbage can, it had first to become a research laboratory...”

(Where the Wasteland Ends)

The German existentialist philosopher Karl Jaspers carries this theme further, and argues for the necessary interdependence of spirituality and materialism: the material dimension is important, but it constitutes only one dimension within a multi-dimensional reality:

“...So far as the well-being of humanity is concerned, science needs guidance from other sources. Science in itself is not enough - or should not be...”

“...When the spirit of a faithless age can become the cause of atrocities all over the world, then it can also influence the conduct of the scientist and the behaviour of the physician, especially in those areas where science itself is confused and unguided. It is not the spirit of science but the spirit of its vessels that is depraved...”

“...In our present situation the task is to attain to that true science which knows what it knows at the same time that it knows what it cannot know. This science shows the ways to the truths that are the indispensable precondition of every other truth. We know what Mephistopheles knew when he thought he had outwitted Faust:

*Verachte nur Vernunft und Wissenschaft
Des Menschen allerhochste Kraft
So habe ich Dich schon unbedingt*

*(Do but scorn Reason and Science
Man's supreme strength
Then I'll have you for sure)... “*

This last concept cannot be overemphasized. In this respect, the logical positivists were absolutely right.

But is the term “science” wholly justified? How much does Mankind *really* know? What *can* we know? Of the field of Cosmology it has been said, only partly in jest, that “*there's speculation, wild speculation, and then there's Cosmology.*” In the field of Biology, it has frequently been inferred by some who should know better that the origin of life was pretty well known, or soon would be. As will be discussed in more detail later, some scientists have seriously suggested that organic molecules were originally generated by means of “scaffolding” provided by particles of clay which were optimized for that purpose by a form of natural selection. Without the benefit of a PhD in biology, I find this idea very difficult to swallow. *There is a very powerful argument that the odds against any mechanistic formation of life in the Universe, let alone the supposed spontaneous generation of life on Earth four billion years ago, are stupendously high.* With increasing understanding of the molecular complexity at the basis of life, explanations have had to fall back on the unscientific hypothesis of the “Anthropic principle,” of an infinite ensemble of universes in which, for the vast majority, no life exists or is able to exist. Only by means of heroically extreme and arguably absurd conjecture can the proponents attempt to bring the odds back towards some semblance of respectability. There is a strong case that science at the level of many of its “rank and file” is far too hubristic. Thomas Carlyle's judgment is just as appropriate now as when he wrote it:

“...Science has done much for us; but it is a poor science that would hide from us the deep sacred infinitude of Nescience, whither we can never penetrate, on which all science swims as a mere superficial film...”

Again, returning to the conversation of Bohr, Heisenberg and Pauli, the message is just as clear-cut:

“...I began by pointing out that I could see no reason why the prefix ‘meta’ should be reserved for logic and mathematics - Frank had spoken of metalogic and metamathematics - and why it was anathema in physics. The prefix, after all, merely suggests that we are asking further questions, i.e. questions bearing on the fundamental concepts of a particular discipline, and why ever should we not be able

to ask such questions in physics? But I should start from the opposite end. Take the question ‘What is an expert?’ Many people will tell you that an expert is someone who knows a great deal about his subject. To this I would object that no one can ever know very much about any subject. I would much prefer the following definition: an expert is someone who knows some of the worst mistakes that can be made in his subject, and how to avoid them. Hence Phillip Frank ought to be called an expert in metaphysics, one who knows how to avoid some of its worst mistakes - I was not quite sure whether Frank was very happy about my praise, though it was certainly not offered tongue-in-cheek. In all such discussions what matters most to me is that we do not simply talk the ‘deeps in which truth dwells’ out of existence. That would mean taking a very superficial view...”

(Truth Dwells in the Deeps)

And we should bear in mind the humility of the great natural philosopher Isaac Newton when he acknowledged this Nescience, or ignorance:

“...I do not know what I may appear to the world, but to myself I seem to have been only like a boy playing on the seashore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me...”

The elite natural philosophers have all been of a similar conviction, the rank and file scientific “technicians” not. In spite of all our progress in collecting more smooth pebbles and some very pretty shells, the mysterious Ocean of Truth lies still essentially undiscovered before us, and the logician Kurt Gödel has demonstrated that we never *can* fully comprehend it. The book to read is **Gödel, Escher, Bach**.

The flood tide of the materialistic mythos has arrived within our lifetimes. Writing at the period of its seemingly undeniable triumph in the middle of the 20th century, with Mankind succeeding in liberating the awesome power of nuclear energy, the physicist Arthur Eddington summed up his concept of the nature of Reality with a defence of the spiritual dimension:

“...It is by looking into our own nature that we first discover the failure of the physical universe to be coextensive with our experience of reality. The “something to which truth matters” must surely have a place in reality whatever definition of reality we may adopt. In our own nature, or through the contact of our consciousness with a nature transcending ours, there are other things which claim the same kind of recognition - a sense of beauty, of morality, and finally at the root of all spiritual religion an experience we describe as the presence of God. In suggesting that these things constitute a spiritual world I am not trying to substantialise them or objectivise them - to make them out other than we find them to be in our experience of them. But I would say that when from the human heart, perplexed with the mystery of existence, the cry goes up: “What is it all about?” it is no true answer to look only at that part of experience which comes through certain sensory organs and reply: “It is about atoms and chaos; it is about a universe of fiery globes rolling on to impending doom; it is about tensors and non-commutative algebra.” Rather it is about a spirit in which truth has its shrine, with potentialities of self-fulfillment in its response to beauty and right...”

(New Pathways in Science)

Striving for knowledge of the natural world is a never-ending and hallowed Quest. However, men of scientific genius are beginning to point the way toward a Reality which seems to lie far beyond the grasp of the purely superficial mechanistic models. Consider the following in reference to the Nobel laureate physicist Wolfgang Pauli:

“...In regard to [the] unitary order of the cosmos, which still cannot be rationally formulated, Pauli is also sceptical of the Darwinian opinion, extremely widespread in modern biology, whereby the evolution of species on Earth is supposed to have come about solely according to the laws of physics and chemistry, through chance mutations and their subsequent effects. He feels this scheme to be too narrow and considers the possibility of more general connections, which can neither be fitted into the general conceptual scheme of causal structures nor properly be described by the term “chance”. Repeatedly, we encounter in Pauli an endeavour to break out of the accustomed grooves of thought in order to come closer, by new paths, to an understanding of the unitary structure of the world.

It goes without saying that Pauli, in his wrestlings with the “One”, was also continually obliged to

come to terms with the concept of God; when he writes in a letter of the “theologians, to whom I stand in the archetypal relation of a hostile brother,” this remark is certainly also seriously intended. Little as he was in the position of simply living and thinking within the tradition of one of the old religions, so equally little was he prepared to go over to a naïve, rationalistically grounded atheism. No better account could well be given of Pauli's attitude to this most general of questions than that which he himself has offered in the concluding section of his lecture on science and Western thought: “...I believe, however, that to anyone for whom a narrow rationalism has lost its persuasiveness, and to whom the charm of a mystical attitude, experiencing the outer world in its oppressive multiplicity as illusory, is also not powerful enough, nothing else remains but to expose oneself in one way or another to these intensified oppositions and their conflicts. Precisely by doing so, the inquirer can also more or less consciously tread an inner path to salvation. Slowly there then emerge internal images, fantasies or Ideas to compensate the outer situation, and which show an approach to the poles of the antithesis to be possible. Warned by the miscarriage of all premature endeavours after unity in the history of human thought, I shall not venture to make predictions about the future. But, contrary to the strict division of the activity of the human spirit into separate compartments - a division prevailing since the nineteenth century - I consider the ambition of overcoming opposites, including also a synthesis embracing both rational understanding and the mystical experience of unity, to be the mythos, spoken or unspoken, of our present day and age.”

(Quantum Questions) (26)

This is totally in accord with Plato's thesis:

...And if I find any man who is able to see ‘a One and a Many’ in Nature, him I follow, and ‘walk in his footsteps as if he were a god’...

Mankind's scientific endeavours have led us to grand vistas on the one hand, and on the other to profound ethical and epistemological problems; most importantly the problem that increasingly we have to learn not so much to “play God,” but necessarily *become God*, with the awesome responsibility that that entails. Thus with scientific advancement has come the End of Innocence. This problem will only intensify as we grow in terms of physical knowledge and material power. Arguably, the vision to begin to chart a course through the metaphorical Ocean of reality implies the necessary realization of our oneness with the Whole. This is inherent in Chinese Neo-Confucian philosophy:

*...viewing things from the point of view of Heaven gives us a sympathetic understanding of them. In the sphere where the self is transcended, sympathy towards things is also increasingly enlarged until the sphere of what [is] called “forming one body with all things” is reached. They call this sphere that of **jen**.*

The word jen has two meanings. One is moral, the jen (humanity) in the (Five Constant Virtues) of humanity, righteousness, propriety, wisdom, and faithfulness... The other meaning refers to the sphere we are discussing. Ch'eng Ming-tao (Cheng Hao, 1032-1085) said, “The man of jen forms one body with all things without any differentiation. Righteousness, propriety, wisdom, and faithfulness are all [expressions of] jen”... In order to distinguish the two meanings, we shall call this jen “the Great Jen.”

(A Sourcebook in Chinese Philosophy) (78)

And as the iconoclast Nietzsche puts it:

...Our supreme insights must - and should! - sound like follies... The exoteric and the esoteric, as philosophers formerly distinguished them... differ one from another not so much in that the exoteric stands outside and sees, evaluates, measures, judges from the outside, not from the inside: what is more essential is that this class sees things from below - but the esoteric sees from above!...

(Beyond Good and Evil) (82)

The group Nietzsche refers to as “exoterics” are the logical positivists and materialists. His “esoterics” are people such as Pauli, Bohr, Einstein, Newton, and the many other giants of natural philosophy. Spinoza termed the knowledge of unity with the Whole, *Amor Dei intellectualis*, Einstein used the term *cosmic*

religiousness, and the ancient Greeks, *enthousiasmos*. This “vision from a higher plane” is arguably the path to the kinds of spiritual understanding that are essential if Mankind is to survive the turbulent times ahead. Our awesome material power **must** necessarily be balanced by a commensurate spiritual power. *There are strong grounds for asserting that absolute materialism leads to correspondingly absolute corruption.*

ON THE FAUSTIAN COMPACT AND “PROGRESS”:

Mankind has achieved immense power, even though of a relatively superficial kind, and is paying a correspondingly high price. The Faustian legend is a potent metaphor for this predicament. Herman Kahn and Anthony J. Weiner discuss the “myth of inevitable progress” and its corresponding dangers in the context of contemplating Man’s immediate future:

“...We are interested in [the Faustian legend] primarily as it gives rise to insights concerning the consequences of the multifold trend characteristic of our culture. For the moment let us set aside the differences in treatments of this legend by several authors at different times, as well as divergent critical interpretations. The most popular literary treatments - those of Marlowe and Goethe - do provide at least poetic insight into the problems we have been raising. Marlowe’s version is more faithful to the early folk tale, but Goethe’s version possesses that poetic ambiguity and complexity that raises the legend to the level of archetype or myth. In both versions, Faust sells his soul to the devil in order to acquire knowledge, power, riches, and women - typical sensate goals.”

“The object of pragmatic, empirical (sensate) knowledge is to control rather than to comprehend Nature - to understand it instrumentally and manipulatively, rather than emphatically, normatively, or mythically. Such knowledge is a tool, not for the philosopher, but for homo faber, man the maker or doer, who gambles with fate (Fortuna, or chance, is a woman) to seize those rare opportunities that might never recur. Faustian man, or homo faber, is secular, profane, and sensate, rather than theological, philosophical or theoretical.”

“The medieval play emphasises the distinction between the sacred and the secular, between the body and the soul... The myths of Prometheus and Icarus - even the apple of the Tree of Knowledge - expressed similar misgivings about the potential consequences of striving for prowess with which to transcend human limitations and to subjugate the forces of Nature. When Faust builds a new area in which people can find a new life, in which swamps are drained and dikes built to hold back the sea, he rejoices that dikes can never be perfect, since ‘Freedom and life are earned by those alone who conquer them each day anew’ .”

“Faust is not immoral but amoral. He is indifferent to the fate of those who stand in his way rather than brutal; the brutal actions in the play are performed by Faust’s agents without Faust’s knowledge. However, lest the reader think that Faust would have countermanded this brutality, there is one episode in which an old couple is ruthlessly evicted from their property by Faust himself even though their property is not essential to his scheme. They are in his way, and like a force of Nature, he brushes them aside.”

“We are far from suggesting that the processes once presented by the basic multifold trend can be overcome. Janus, looking both backwards and forward, must be the most disillusioned of all. Few of us are likely to return to the naïve optimism of the Enlightenment, to the rationalistic confidence in historical progress that is still dying slowly in both East and West, slowest of all in the U.S., while it continues to gain new adherents in the developing nations... Some of the social trends, technological innovations, and levels of economic development that forecast a nightmarish twenty-first century are almost surely not reversible by any means short of holocaust.”

“Yet, if the cycle cannot be stopped, if the warring elements cannot be eliminated (as indeed they could not without the elimination of Man), we can perhaps hope that they can be moderated. Just as the economist hopes to avoid not all the phenomena of the business cycles, but only their extreme troughs and depressions, so perhaps we can hope with adequate knowledge and intelligence to

control the extreme dips and rises of the cultural cycles. If Man may never be completely in control of his fate, perhaps he may rise to partial control."

"We share the prevailing humanistic view that Man's increasing capability to alter his environment (not only the outside world but his own physiological and intrapsychic situation as well) amounts to "progress." It would be no more desirable than feasible to attempt to permanently halt the processes of technological and economic development, or to reverse them. Yet our very power over Nature threatens to become itself a force of Nature that is out of control, as the social framework of action obscures and thwarts not only the human objectives of all the striving for "achievement" and "advancement" but also the inarticulate or ideological reactions against the process... If we cannot learn to cope with the dangerous responsibilities of our technological success, we may only have thrown off one set of chains - Nature imposed - for another, ostensibly man-made, but in a deeper sense, as Faust learned, also imposed by Nature..."

(The Year 2000) (109)

Yes, and extrapolating more broadly we can say that Modern Man is not immoral but amoral. He is indifferent to the fates of those creatures (human and other animals, and plants) that stand in the way of his "Inevitable Progress." But while we see the profound limitations of this so-called progress, we have no option but to press on to find a **truer** progress. In the words of the Anglo-Lebanese scientist Sir Peter Medawar, referring to the philosopher Thomas Hobbes:

...We cannot point to a single definitive solution of any one of the problems that confront us - political, economic, social or moral, i.e. having to do with the conduct of life. We are still beginners, and for that reason may hope to improve. To deride the hope of progress is the ultimate fatuity, the last word in poverty of spirit and meanness of mind. There is no need to be dismayed by the fact that we cannot yet envisage a definitive solution of our problems, a resting-place beyond which we need not try to go. Because he likened life to a race, and defined felicity as the state of mind of those in the front of it, Thomas Hobbes has always been thought of as the arch materialist, the first man to uphold go-getting as a creed. But that is a travesty of Hobbes's opinion. He was a go-getter in a sense, but it was the going, not the getting he extolled. The race had no finishing post as Hobbes conceived it. The great thing about the race was to be in it, to be a contestant in the attempt to make the world a better place, and it was a spiritual death he had in mind when he said that to forsake the course is to die. "There is no such thing as perpetual tranquility of mind while we live here," he told us in Leviathan, "because life itself is but a motion and can never be without desire, or without fear, no more than without sense"... "There can be no contentment but in proceeding." I agree.

ON THE BLIND WATCHMAKER:

At the beginning of his book *"The Blind Watchmaker,"* the zoologist Richard Dawkins states:

"...this book is written in the conviction that our own existence once presented the greatest of all mysteries, but that it is a mystery no longer because it is solved. Darwin and Wallace solved it, though we shall continue to add footnotes to their solution for a while yet..."

Dawkins then goes on to discuss the Neo-Darwinist theory of evolution from the development of the bacterium to multi-cellular life, but fails abysmally in trying to account for the important part: *the origin of Life*. His faith in materialistic explanations is arguably as fundamentalist as that of the most religious zealot, who should stand in awe of Dawkins' ability to reach a position of absolute certainty in the face of such powerfully contradictory evidence.

In this general context, two statements from Nobel laureate scientists are pertinent to Dawkins' attempts to annihilate the "God Delusion":

"...Then there are the fanatical atheists whose intolerance is the same as that of the religious fanatics and it springs from the same source... They are creatures who can't hear the music of the spheres..."

Albert Einstein Einstein Archive

"...There is no quicker way for a scientist to bring discredit upon himself and on his profession than

roundly to declare - particularly when no declaration of any kind is called for - that science knows or soon will know the answers to all questions worth asking, and that the questions that do not admit a scientific answer are in some way non-questions or 'pseudo-questions' that only simpletons ask and only the gullible profess to be able to answer... Philosophically sophisticated people know that a 'scientific' attack upon religious belief is usually no less faulty than a defence of it..."

Sir Peter Medawar

Advice to a Young Scientist

In the only chapter of *The Blind Watchmaker* effectively attempting to deal with the Origin of Life, Dawkins cites the work of Miller and Urey, and Cairns-Smith. In terms of the Miller-Urey experiment it has elsewhere been stated that:

"...Miller took molecules which were believed to represent the major components of the early Earth's atmosphere and put them into a closed system. The gases they used were methane (CH₄), ammonia (NH₃), hydrogen (H₂) and water (H₂O). Next, he ran a continuous electric current through the system, to simulate lightning... believed to be common on the early Earth. At the end of one week, Miller observed that as much as 10-15% of the carbon was now in the form of organic compounds... Miller's experiment showed that organic compounds such as amino acids, which are essential to cellular life, could be made easily under the conditions that scientists believed to be present on the early Earth..."

"...these discoveries created a stir within the science community. Scientists became very optimistic that the questions about the origin of Life would be solved within a few decades. This has not been the case, however. Instead, the investigation into Life's origins seems only to have just begun..."

"...There has been a recent wave of skepticism concerning Miller's experiment because it is now believed that the early Earth's atmosphere did not contain predominantly reductant molecules. Another objection is that this experiment required a tremendous amount of energy. While it is believed lightning storms were extremely common on the primitive Earth, they were not continuous as the Miller-Urey experiment portrayed. Thus... while amino acids and other organic compounds may have formed, they would not have formed in the amounts which this experiment produced..."

http://www.chem.duke.edu/~jds/cruise_chem/Exobiology/miller.html

Far more importantly, the organic molecules produced by the experiment were merely the "nuts and bolts" of life, with a vast gulf separating them from having the capacity to self-replicate and evolve. There are many orders of magnitude of difference in complexity between these organic molecules and that of the DNA molecule. In order to bridge this extraordinary gap, Dawkins has to make an equally extraordinary leap of faith. He chooses to present his case through the life genesis theory of Graham Cairns-Smith:

"...Cairns-Smith's view of the DNA/protein machinery is that it came into existence relatively recently, perhaps as recently as three billion years ago. Before that there were many generations of cumulative selection, based on some quite different replicating entities. Once DNA was there, it proved to be so much more efficient as a replicator, and so much more powerful in its effects on its own replication, that the original replication system was cast off and forgotten..."

"...Cairns-Smith believes that the original life on this planet was based on self-replicating inorganic crystals such as silicates..."

"...Cairns-Smith's guess is that the original replicators were crystals of inorganic materials, such as those found in clays and muds. A crystal is just a large orderly array of atoms or molecules in the solid state..."

"...Since replication is what we are interested in, the first thing we must know is, can crystals replicate their structure?..."

"...A crystal of common salt is a packed, orderly array of sodium ions alternating with chloride ions at right angles to each other. When ions floating in the water happen to bump into the hard surface of the crystal, they tend to stick. And they stick in just the right places to cause a new layer to be added to the crystal just like the layer below..."

“...Flaws can occur anywhere over the surface of the crystal. If you like thinking about capacity for information storage (I do), you can imagine an enormous number of different patterns of flaws that could be created over the surface of the crystal. All those calculations about packing the New Testament into the DNA of a single bacterium could be done just as impressively for almost any crystal. What DNA has over normal crystals is a means by which its information can be read. Leaving aside the problem of read-out, you could easily devise an arbitrary code whereby flaws in the atomic structure of the crystal denote binary numbers. You could then pack several New Testaments into a mineral crystal the size of a pin’s head. On a larger scale, this is how music information is stored on the surface of a laser (‘compact’) disc...”

“Leaving aside the problem of read-out”? ...But surely all of these “New Testaments” having been laboriously built up by chance over many billions of years need the presence of Mind to be usefully “read”? But we have to move on:

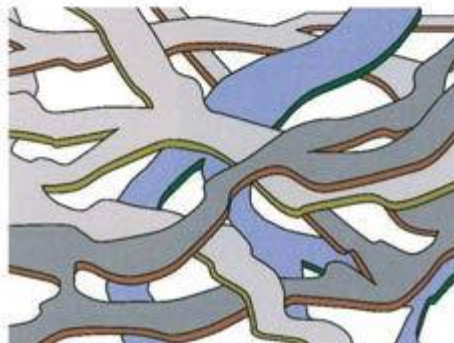
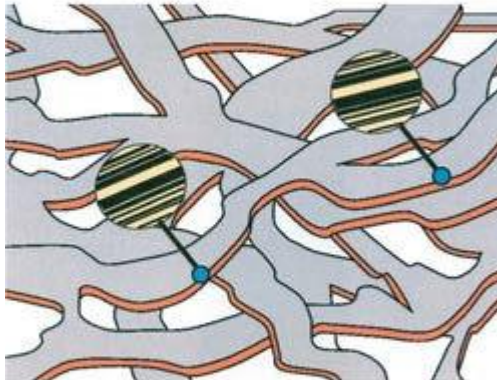
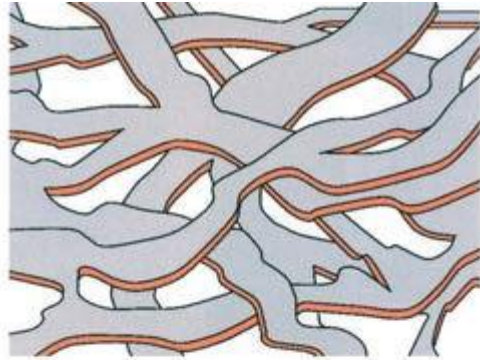
“...The role of clay and other mineral crystals in the theory is to act as the original ‘low tech’ replicators, the ones that were eventually replaced by high-tech DNA. They form spontaneously in the waters of our planet without the elaborate ‘machinery’ that DNA needs; and they develop flaws spontaneously, some of which can be replicated in subsequent layers of crystal. If fragments of suitably flawed crystal later broke away, we could imagine them acting as ‘seeds’ for new crystals, each one ‘inheriting’ its ‘parent’s’ patterns of flaws...”

“...So we have a speculative picture of mineral crystals on the primeval Earth showing some of the properties of replication, multiplication, heredity and mutation that would have been necessary in order for a form of cumulative selection to get started. There is still the missing ingredient of ‘power’: the nature of replicators must somehow have influenced their own likelihood of being replicated...”

“...What might ‘power’ mean to clay? What incidental properties of the clay could influence the likelihood that it, the same variety of clay could influence the likelihood that it, the same variety of clay, would be propagated around the countryside?...”

“...Whether or not a particular type of clay crystal is allowed to build up depends, among other things, upon the rate and pattern of flow of the stream. But deposits of clay can also influence the flow of the stream. They do this inadvertently by changing the level, shape and texture of the ground through which the water is flowing. Consider a variant of clay that just happens to have the property of reshaping the structure of the soil so that the flow speeds up. The consequence is that the clay concerned gets washed away again. This kind of clay, by definition, is not very ‘successful’....”

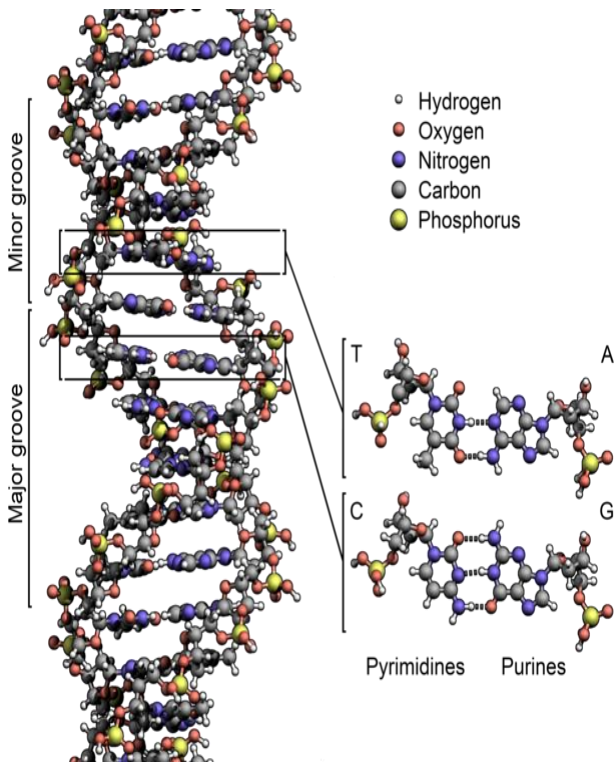
“...We aren’t, of course, suggesting that clays ‘want’ to go on existing. Always we are talking about incidental consequences, events which follow from properties which the replicator just happens to have. Consider another type of clay. This one happens to slow down the flow in such a way that future deposition of its own kind of clay is enhanced. Obviously this second variant will tend to become more common, because it happens to manipulate streams to its own ‘advantage’....”



Top: Representation of mineral crystal layers, a possible primitive gene? Middle: Variations in genetic “barcodes”. Bottom: A consortium of chemically different primitive genetic materials.

Credit: Chemistry- See more at: <http://www.space.com/6456-life-crystal-code.html#sthash.lxeUAUGC.dpuf>

“...to speculate a little further, suppose that a variant of a clay improves its chances of being deposited, by damming up streams. In any stream in which this kind of clay exists, large, stagnant shallow pools form above dams, and the main flow of water is diverted into a new course... During the dry season the shallow pools tend to dry up. The clay dries and cracks in the sun, and the top layers are blown off as dust. Each dust particle inherits the characteristic defect structure that gave it its damming properties. By analogy with the genetic information raining down on the canal from my willow tree, we could say that the dust carries ‘instructions’ for how to dam streams and eventually make more



dust. The dust spreads far and wide in the wind, and there is a good chance that it will happen to land in another stream, hitherto not ‘infected’ with the seed of this kind of dam-making clay...”

“...The ancestral crystal structure is preserved down the generations unless there is an occasional mistake in crystal growth, an occasional alteration in the laying down of crystal atoms. Subsequent layers of the same crystal will copy the same flaw, and if the crystal breaks in two it will give rise to a sub-population of altered crystals...”

[But wait, surely even the minutest quantity of impurities in the environment would contaminate the crystal and throw out any hope of transmissibility of crystal structure over time, and particularly over geological time? What is needed is just enough contamination to change the structure in order to eventually store information (generated by “natural selection”..!), but not enough to prevent transmission of that information over the many hundreds of millions of years needed for evolutionary processes to work. In fact, it could be argued that *many, many*

billions of years (in fact many times longer than the accepted age of the Universe) would be needed to achieve his amazing ‘laser disc’ information-storing crystal structures. A very delicate balancing act indeed would be required. Who or What is doing the balancing?]

“...Some lineages of crystals might happen to catalyse the synthesis of new substances that assist in their passage down the ‘generations’... These secondary substances... could be seen as tools of the replicating crystal lineages, the beginnings of primitive ‘phenotypes’... Cairns-Smith believes that organic molecules were prominent among non-replicating ‘tools’ of his inorganic crystalline replicators. Organic molecules frequently are used in the commercial inorganic chemical industry because of their effects on the flow of fluids, and on the break-up or growth of inorganic particles...”

“...At this point Cairns-Smith’s theory gets a sort of free bonus of added plausibility. It so happens that other chemists, supporting more conventional organic ‘primeval soup’ theories, have long accepted that clay minerals would have been a help...”

“...Cairns-Smith discusses... early uses that his clay-crystal replicators might have had for proteins, sugars and, most important of all, nucleic acids like RNA. He suggests that RNA was first used for purely structural purposes... RNA-like molecules, because of their negatively charged backbones, would tend to coat the outsides of clay particles... What matters is that RNA, or something like it, was around for a long time before it became self-replicating. When it did become self-replicating, this was a device evolved by the mineral crystal ‘genes’ to improve the efficiency of manufacture of the RNA... But, once a new self-replicating molecule had come into existence, a new kind of cumulative selection could get going... The new replicators turned out to be much more efficient than the original crystals that they took over. They evolved further, and eventually perfected the DNA code that we know today...”

[So, survival of the fittest amongst clay crystals, which eventually simulated a function similar to that of “laser discs,” which then led on to the generation of Life? A miracle, surely! But wait, on reading further, Dawkins thinks so too...]

“...This is science fiction, and it probably sounds far-fetched. That doesn’t matter.”

[Heave a sigh...]

“Of more immediate moment is that Cairns-Smith’s own theory, and indeed all other theories of the

origin of Life, may sound far-fetched to you and hard to believe. Do you find both Cairns-Smith's clay theory, and the more orthodox organic primeval-soup theory, wildly improbable? Does it sound to you as though it would take a miracle to make randomly jostling atoms join together into a self-replicating molecule? Well, at times it does for me too. But let's look more deeply into this matter of miracles and improbability. By doing so, I shall demonstrate a point which is paradoxical but all the more interesting for that. That is that we should, as scientists, be even a little worried if the origin of Life did not seem miraculous to our own human consciousness..."

I'm very sorry, Dr. Dawkins, but the most charitable assessment which can be allowed of all this is that it would sound suspiciously like an attempt to "make a virtue out of necessity." It's been held by those who characterise themselves as the modern Skeptics that "extraordinary claims must be backed by extraordinary evidence." Well, rightly so, and I can just imagine true skeptics falling about laughing at the Cairns-Smith / Dawkins thesis. There is not *one iota* of evidence to support these **very** extraordinary claims. The Origin of Life is **still** a profound mystery. [And the capitalisation here is intentional]. This is far more the case now, with our increased knowledge of Life's complexity, than in Darwin's time, when in his ignorance he could be forgiven to some extent for trivializing it. The Blind Watchmaker metaphor is arguably completely inadequate. Much more like a mindless watchmaker without not only sight, but also touch, smell, hearing and taste... What's that leave, the sixth sense?

In terms of real-life intelligent design, it has been shown that an inventor or scientist has about a 0.2% chance of successfully getting a product to market:

99.8% fail. Only 3,000 patents out of 1.5 million patents are commercially viable. "In truth, odds are stacked astronomically against inventors, and no marketing outfit can change them. 'There are around 1.5 million patents in effect and in force in this country, and of those, maybe 3,000 are commercially viable,' [Richard Maulsby, director of the Office of Public Affairs for the U.S. Patent & Trademark Office], says. 'It's a very small percentage of patents that actually turn into products that make money for people. On top of all that, to get ripped off for tens of thousands of dollars adds insult to injury)

There is also a price to be paid for innovation. Changes have to take place gradually, and "half-baked" changes are usually counterproductive. If intelligent design in the form of patented ideas is so woefully unsuccessful, mindless chaos will be many more orders of magnitude behind that. But Dr. Dawkins asks us to believe that it got it right and invented DNA and living cells and replication within (at most) a few hundred million years!

On the other hand, this should not in any way be seen as an apology for Creationist "science." All that can be concluded from the above is that *orthodox science cannot yet even **begin** to comprehend how Life originated.* Dawkins' hero was much more in accord with this viewpoint:

"...My theology is a simple muddle: I cannot look at the Universe as the result of blind chance, yet I can see no evidence of beneficent Design..."

(Charles Darwin's **Letter to Joseph Hooker**, July 12 1870)

The perennial philosophy is in absolute agreement with both of these latter points. The Absolute is of necessity beyond Good and Evil. Check out Nietzsche. There need be no "muddle."

It appears, though, that Dr. Dawkins has a very narrow conception of the Deity. It is important to note that he seems to have no real problem with *pantheism* as such:

...Dawkins weaves and mixes around certain terms and definitions in a way that muddies the waters. On the one hand, he says that Einstein was an atheist. Later, he puts him the category of those who are "not very religious" and still later, labels him a pantheist. And Dawkins says pantheism is basically "sexed-up atheism." So, Einstein is essentially an atheist. This is literary gamesmanship and discerning readers should not let him get away with this sleight-of-hand.

*What is the point of all this for Dawkins? He is defining his terms and framing the debate - all, of course, in his favour. "My title, **The God Delusion**, does not refer to the God of Einstein and the other enlightened scientists of the previous section.... I am talking about supernatural gods, of which the most familiar to the majority of my readers will be Yahweh, the God of the Old Testament."*

I have to hand it to him. He's brilliant. He very [cleverly] merges atheism and pantheism into one happy family - and reaches out to deists as well, implying strongly that they are more or less with him already. According to Dawkins, pantheists and most deists don't believe in supernaturalism, so they are essentially atheists.

*The problem with this is that **pantheism and deism are very much SUPER-natural belief systems**. They may not be very substantive or significant. Dawkins quotes Carl Sagan as saying that such a limited, remote god is "emotionally unsatisfying." Nevertheless, we're still talking about a supernatural deity or force of some kind.*

A pantheist believes essentially that the universe itself is divine and somehow "alive" - that it is dynamic and thus able to produce life and all the wonders and complexities we marvel at. This is not atheism. Far from it...

Richard Dawkins on Deism Brian Tubbs

This confusion of atheism and pantheism is important and subtle, and is discussed in more detail later, particularly in relation to Spinoza and Einstein.

ON MOORE'S LAW AND THE ORIGIN OF LIFE:

A new paper looking at the measured complexity of life forms over time has thrown back into consideration the thought-provoking statement previously cited by Manfred Schidlowski, of the Otto Hahn Institute in Germany:

...[Schidlowski] made the case that the emergence of life on Earth some four billion years ago, scarcely 500 million years after the Solar System formed, can best be explained "if the ancient Earth had been inoculated by extra-terrestrial protobionts." This does not require the guiding hand of intelligence, but suggests that prebiotic molecules arise naturally in space and infect all suitable planets with life...

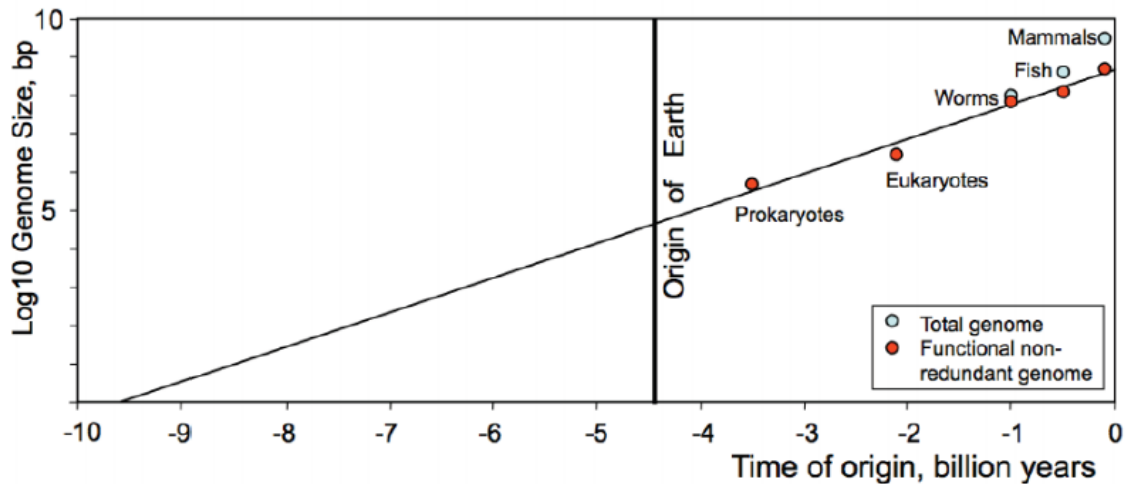
Alexei Sharov and Richard Gordon have applied the powerful exponential analysis techniques of Moore's law to look at the problem from a different perspective, and have come to exactly the same conclusion, but importantly they have generated a *graph* to go with the words. One picture is worth a thousand words:

"As life has evolved, its complexity has increased exponentially, just like Moore's law. Now geneticists have extrapolated this trend backwards and found that by this measure, life is older than the Earth itself. Here's an interesting idea. Moore's Law states that the number of transistors on an integrated circuit doubles every two years or so. That has produced an exponential increase in the number of transistors on microchips and continues to do so."

"But if an observer today was to measure this rate of increase, it would be straightforward to extrapolate backwards and work out when the number of transistors on a chip was zero. In other words, the date when microchips were first developed in the 1960s. A similar process works with scientific publications. Between 1990 and 1960, they doubled in number every 15 years or so. Extrapolating this backwards gives the origin of scientific publication as 1710, about the time of Isaac Newton."

"Today, Alexei Sharov at the National Institute on Ageing in Baltimore and his mate Richard Gordon at the Gulf Specimen Marine Laboratory in Florida, have taken a similar [approach] to complexity and life. These guys argue that it's possible to measure the complexity of life and the rate at which it has increased from prokaryotes to eukaryotes to more complex creatures such as worms, fish and finally mammals. That produces a clear exponential increase identical to that behind Moore's Law although in this case the doubling time is 376 million years rather than two years."

"That raises an interesting question. What happens if you extrapolate backwards to the point of no complexity—the origin of life? Sharov and Gordon say that the evidence by this measure is clear."



"Linear regression of genetic complexity (on a log scale) extrapolated back to just one base pair suggests the time of the origin of life = 9.7 ± 2.5 billion years ago,' they say."

"And since the Earth is only 4.5 billion years old, that raises a whole series of other questions. Not least of these is how and where did life begin."

"Of course, there are many points to debate in this analysis. The nature of evolution is filled with subtleties that most biologists would agree we do not yet fully understand. For example, is it reasonable to think that the complexity of life has increased at the same rate throughout Earth's history? Perhaps the early steps in the origin of life created complexity much more quickly than evolution does now, which will allow the timescale to be squeezed into the lifespan of the Earth."

"Sharov and Gordon reject this argument saying that it is suspiciously similar to arguments that squeeze the origin of life into the timespan outlined in the biblical Book of Genesis. Let's suppose for a minute that these guys are correct and ask about the implications of the idea. They say there is good evidence that bacterial spores can be rejuvenated after many millions of years, perhaps stored in ice."

"They also point out that astronomers believe that the Sun formed from the remnants of an earlier star, so it would be no surprise that life from this period might be preserved in the gas, dust and ice clouds that remained. By this way of thinking, life on Earth is a continuation of a process that began many billions of years earlier around our star's forerunner."

"...There's no question that this is a controversial idea that will ruffle more than a few feathers amongst evolutionary theorists."

"But it is also provocative, interesting and exciting. All the more reason to debate it in detail."

<http://www.technologyreview.com/view/513781/moores-law-and-the-origin-of-life/>

But what about the conventional wisdom that in the early universe there were none of the heavier elements such as carbon and oxygen which are the necessary building blocks of life? In the words of George Gershwin's song *"it ain't necessarily so"*:

"A newfound primordial galaxy nearly 13 billion light-years away is breaking distance records and may unlock the secrets of how and when some of the most massive star factories were born in the early universe, according to a new study."

"Using the infrared mapping capabilities of the European Space Agency's Herschel space telescope, a team of astronomers have spied the faraway light of a starburst galaxy—one that exhibits a high rate of star formation—from when the 14-billion-year-old universe was just 880 million years old..."

"...Another surprise for Riechers and his team was that spectroscopic measurements, which reveal the galaxy's chemical fingerprints, indicate that it possesses a rich and diverse chemical composition, similar to present-day starburst galaxies."

"Because most of the heavier elements, like carbon and iron, are thought to have formed from the ashes of the first generation of stars in the universe, astronomers have speculated these atoms should be absent in the first billion years or so after the Big Bang..."

"This is an indication that the intense star formation in [HFLS3] has already been going on for a significant amount of time, long enough for the shortest-lived stars to explode and pollute their environments with all the heavy elements that we see," said Riechers."

(Starburst Galaxy Could Illuminate Early Universe National Geographic)

And:

"...Now consider that the abundance of heavy elements in the universe has grown over history. In the past the average metallicity would be quite a bit less. Again, under the previous paradigm this had been assumed to preclude rocky planet formation early in the universe, but now we know that such planets could have been constructed in environments that contained much poorer levels of heavy elements. This means that planets that could potentially have supported life may have formed eight, ten, maybe twelve billion years ago..."

See <http://www.space.com/17441-universe-heavy-metals-planet-formation.html>

It is obvious that there remains a high level of uncertainty not only about the possibility of life existing within the conditions pertaining to the early universe but also about what should be the much simpler question of when the heavier elements were first generated.

If life has been around for 10 billion years, our place in the Universe is likely much less significant than ants are in our consciousness. And "Gods" would be everywhere.

ON "MIRACLES":

As an engineer, I have to pay due homage to the second law of thermodynamics; this law states that the disorder (technically termed entropy) of an isolated system always increases, because order in isolated systems always spontaneously "runs down." A gas will expand into a vacuum; a hot object will cool down to equilibrium with its environment; a raised stone will drop if I let it go; in geological time a mountain "spreads out" and wears down to the same level as the plain. But when it comes to the origin of life, the law seems somehow to have been violated. The physicist Paul Davies comes at the problem from first principles, from the standpoint of pure physics:

...Turning now to the problem of biogenesis, we encounter an odd reversal of sentiment. We now need to explain, not the origin of material stuff, but the origin of information. Whereas it is good science to seek a physical process to generate matter, it is regarded as unscientific in the extreme to entertain a process that generates information. Information is not something that is supposed to come for free (like cosmic matter). Information is something you have to work for. This is really just the second law of thermodynamics revisited, because the spontaneous appearance of information in the universe would be equivalent to a reduction of the entropy of the universe – a violation of the second law, a miracle. Now the fact that the universe contains information is undeniable (because it is not in thermodynamic equilibrium). If information can't get made it must have been there at the beginning, i.e. as part of the initial input. The conclusion we are led to is that the universe came stocked with information, or negative entropy, from the word go. What do astronomical observations say about the information content of the early universe? Here we make a very curious discovery. One of the most compelling pieces of evidence for the big bang theory is the existence of a universal background of heat radiation, which seems to be a sort of afterglow of the universe's fiery birth. This radiation has travelled across space more or less undisturbed since shortly after the big bang. It therefore provides a snapshot of what the universe was like near the beginning. Satellite measurements have determined that the spectrum of the cosmic heat radiation corresponds precisely to a state of thermodynamic equilibrium. But thermodynamic equilibrium is a state of maximum entropy that, via the Shannon connection, implies minimum information. In fact, it suffices to give just one bit of information (the temperature) to completely characterize a state of thermodynamic equilibrium, so if the cosmic background heat radiation is anything to go by, the universe started out with almost no information content at all.

We seem to be faced with a disturbing contradiction. The second law forbids the total information content of the universe from going up as it evolves, yet from what we can tell about the early universe it contained very little information. So where has the information present in the universe today come from? Another way of expressing the problem is in terms of entropy. If the universe started out close to thermodynamic equilibrium, or maximum entropy, how has it reached its present state of disequilibrium, given that the second law forbids the total entropy from going down? The answer to this cosmic conundrum is now well known: it comes from a careful study of gravitation. To see how gravitation makes a difference to thermodynamics, think of a flask of gas at a uniform temperature. If the gas is left undisturbed it will do nothing, that is, it will remain in equilibrium. But suppose the mass of gas is so great (as large as an interstellar cloud, say) that gravitation becomes important. It is then no longer true that nothing happens. The system is now unstable. The gas will start to contract and clumps of denser material will accumulate here and there. At the centres of the clumps the contraction will make the gas hot. Temperature gradients will form and heat will flow. In a real interstellar cloud, stars form. The flow of heat radiation from one such star – the Sun – is the source of free energy, or negative entropy, that drives all surface life on Earth through photosynthesis. So under the action of gravitation, a gas that is supposed to be in thermodynamic equilibrium at a uniform temperature and maximum entropy, nevertheless undergoes further changes, causing heat to flow and the entropy to rise further. Thus gravitationally induced instability is a source of information. Evidently gravitation changes the rules of the game in a profound way. A system in which gravitation makes itself felt cannot be considered to be in a state of true thermodynamic equilibrium, or maximum entropy, just because it is at a uniform temperature and density. Appearances deceive us. A uniform cloud of gas still has a lot of free energy to give up via gravitational processes. Even at a uniform temperature the gas is in a low entropy state. When it comes to cosmology, gravitation is the all-dominant force, so we cannot ignore its thermodynamic effects. This means we cannot conclude from the existence of a uniform background of heat radiation that the early universe was in fact in a state of thermodynamic equilibrium. Just as life seems to go 'the wrong way' thermodynamically, so too does gravitation go 'the wrong way'. A smooth gas grows into something clumpy and complex. Order appears spontaneously. In informational terms this seems all back to front. A uniform gas, by its very simplicity, can be described with very little information, whereas a star cluster or a galaxy requires a lot of information to describe it. In some

as yet ill-understood way, a huge amount of information evidently lies secreted in the smooth gravitational field of a featureless, uniform gas. As the system evolves, the gas comes out of equilibrium, and information flows from the gravitational field to the matter. Part of this information ends up in the genomes of organisms, as biological information. Looking at the universe as a whole, the initially smooth distribution of gas coughed out at the big bang slowly turned into splodges of hotter and cooler gas, and eventually arranged itself into shining proto-galaxies surrounded by empty space. The proto-galaxies in turn formed glowing stars. The expansion of the universe assisted the escalating thermal contrast, because as the universe expanded, its background temperature dropped. The hot stars were then able to radiate more vigorously into the cold space.

The upshot of these gravitational processes was that an entropy gap opened up in the universe, a gap between the actual entropy and the maximum possible entropy. The flow of starlight is one process that is attempting to close the gap, but in fact all sources of free energy, including the chemical and thermal energy inside the Earth, can be attributed to that gap. Thus all life feeds off the entropy gap that gravitation has created. The ultimate source of biological information and order is gravitation. Tracing the source of information back to gravitation and the smooth state of the universe just after the big bang still leaves us with the problem of semantics. How has meaningful information emerged in the universe? This mystery is closely related to the origin of complexity, another defining factor of life. Scientists are divided over whether complexity behaves like matter or information, that is, whether or not the overall complexity of the universe stays the same. Some researchers are convinced that there are laws of complexity. If such laws exist, they may describe how a simple state can evolve naturally into a more complex one, perhaps even one containing semantic information. This process is often called self-complexification or self-organization... Other scientists argue that complexity cannot be conjured out of mid-air; a complex system can only be created by another system at least as complex. But gravitational complexity gives pause for thought, because it does indeed emerge naturally from a simple initial state.

Being such a weak force, it is hard to see how gravitation could play a direct role in biochemical processes. However, there have been suggestions made along those lines. Roger Penrose, an Oxford mathematician and world expert on gravitation theory, has speculated that gravity may affect biomolecules through quantum processes. Mathematical physicist Lee Smolin has also compared the subjects of life and gravitation in his recent book "The Life of the Cosmos." He develops an analogy between the behaviour of ecosystems and spiral galaxies. Drawing inspiration from computer models of self-organization, Smolin finds close parallels in the processes of feedback and pattern formation in star clusters and biology. He believes that life is part of a 'nested hierarchy of self-organized systems that begins with our local ecologies and extends upwards at least to the galaxy.' If these ideas of Penrose and Smolin are right – and it has to be said that they are very speculative – they may reveal a connection between the thermodynamically 'wrong way' qualities that characterize both gravitational and biological systems. It would then be that the explanation of the origin of life is deeply linked to the origin of the universe itself...

(The Origin of Life Paul Davies) (129)

In being dependent on gravitation, arguably the origin of life is also deeply linked to the fundamental *structure* of the universe.

Some inkling of the vast complexity of living organisms (arguably made possible by gravitation!) can be glimpsed in the following animation videos from the Walter and Eliza Hill Institute:

<https://www.youtube.com/watch?v=mDZLiZB0iPY>

<https://www.youtube.com/watch?v=OjPcT1uUZiE>

Looking at these, it is hard to believe that this is not evidence of a vast intelligence at work. In a concept vaguely parallel to the ideas of Penrose and Smolin, the noted British scientist Fred Hoyle posited that it may be plausible that living things are able to draw down information from the future through quantum processes. He gives only a glimpse of the mechanism through which this could happen:

"...The problem now is to understand where the coded information sequences might come from, and for this I must again appeal to a profound aspect of physics, namely the concept of time-sense. The 'laws' which describe how radiation of all kinds – ordinary light, ultraviolet light, radio waves and so on travel through space were discovered by the nineteenth century Scottish physicist James Clerk Maxwell. Although discovered so long ago, 'Maxwell's equations' as they are called still play a crucial role in modern physics, in quantum mechanics. Their study therefore forms an important part of every modern course in physics. Because the equations in their full complexity are really very hard to handle, the tendency is for students to limit themselves to a limited number of special situations..."

"...Because every one of the special situations concerns radiation travelling in the usual time sense from past to future, it passes almost unnoticed that there is another set of situations with radiation travelling in the opposite time-sense from future to past. So far as Maxwell's laws are concerned, this set is just as good as the first. But custom dictates that the second set be tossed into the wastepaper basket... yet all experience shows that Nature is very parsimonious, in the sense that where possibilities exist they seem always to be used. Is it possible that the possibility of a reversed time-sense, future to past, is an exception, pretty well the only exception, to this general rule of natural parsimony? I have for long considered that the answer to this question must surely be no, and I have for long puzzled about what the consequences of such an answer would be.'

'...Quantum physics [based on the propagation of radiation from past to future predicts only] degeneration, senescence [and] the loss of information...'

'...But in biology this situation is reversed, because as living organisms develop they increase in complexity, gaining information rather than losing it. It is as if a torch could spontaneously collect light, focus it into a bulb, convert it into electricity and store it.'

'How can living organisms manage this? I think we must abandon our pre-conceptions to appreciate what is happening... If events could operate not only from past to future, but also future to past, the seemingly intractable problem of quantum uncertainty could be solved. Instead of living matter becoming more and more disorganized, it could react to quantum signals from the future – the information necessary for the development of life. Instead of the Universe being committed to increasing disorder and decay, the opposite could then be true...'

(The Intelligent Universe) (75)

An alternative explanation could be that the Universe did not have a beginning in time, and that time is circular. This would be another mechanism for drawing down information from the "future." Circular time has previously been dismissed on the basis that matter at large red shifts was thought to have a radically different makeup from that at low red shifts. As we saw in the previous chapter, this is now possibly in doubt.

The only other way in which our current reality could have evolved is if we live in an infinite universe nested within an infinite multiverse, which could hence allow laws of probability to be broken locally. But there are problems with this. It's just another way of saying "given an infinite number of throws of the dice, miracles can happen." As an explanation, it is pretty much of "scraping the bottom of the barrel."

These explanations undoubtedly go against common sense, but so does all quantum physics and relativity. Whether or not these conjectures are true, there is a strong argument that a crucial test of any cosmological theory should be that it allows room for a plausible mechanism for the genesis of life. The existence of Life is arguably a far more useful piece of evidence for the nature of cosmic evolution than the existence of the cosmic microwave background.

ON SCIENTIFIC "ATHEISM":

Michael Shermer is publisher of the journal *Skeptic*, presumably one of the least likely sources of a discussion of a spiritual dimension to reality. In this context the following essay is all the more unexpected:

...In the early 17th century a demon was loosed on the world by Italian mathematician Galileo Galilei when he began swinging pendulums, rolling balls down ramps and observing the moons of Jupiter – all with the aim toward discovering regularities that could be codified into laws of Nature.

So successful was this mechanical worldview that by the early 19th century French mathematician Pierre-Simon Laplace was able to “imagine an Intelligence who would know at a given instant of time all forces acting in Nature and the position of all things of which the world consists... Then it could derive a result that would embrace in one and the same formula the motion of the largest bodies in the universe and of the lightest atoms. Nothing would be uncertain for this Intelligence.”

By the early 20th century, science undertook to become Laplace’s demon. It cast a wide “causal net” linking effects to causes throughout the past and into the future and sought to explain all complex phenomena by reducing them into their simpler component parts. Nobel laureate physicist Steven Weinberg captured this philosophy of reductionism poignantly: “All the explanatory arrows point downward, from societies to people, to organs, to cells, and ultimately to physics.” In such an all-encompassing and fully explicable cosmos, then, what place for God?

Stuart Kauffman has an answer: naturalize the deity. In his new book, **Reinventing the Sacred**, Kauffman – founding director of the Institute for Biocomplexity and Informatics at the University of Calgary in Alberta and one of the pioneers of complexity theory – reverses the reductionist’s causal arrow with a comprehensive theory of emergence and self-organisation that he says “breaks no laws of physics” and yet cannot be explained by them. God “is our chosen name for the ceaseless creativity in the natural universe, biosphere and human cultures,” Kauffman declares.

In Kauffman’s emergent universe, reductionism is not wrong so much as incomplete. It has done much of the heavy lifting in the history of science, but reductionism cannot explain a host of as yet unsolved mysteries, such as the origin of life, the biosphere, consciousness, evolution, ethics and economics. How would a reductionist explain the biosphere, for example? “One approach would be, following Newton, to write down the equations for the evolution of the biosphere and solve them. This cannot be done,” Kauffman avers. “We cannot say ahead of time what novel functionalities will arise in the biosphere. Thus we do not know what variables – lungs, wings, etc. – to put into our equations. The Newtonian scientific framework where we can pre-state the variables, the laws among the variables, and the initial and boundary conditions, and then compute the forward behaviour of the system, cannot help us predict future states of the biosphere.”

The problem is not merely an epistemological matter of computing power, Kauffman cautions; it is an ontological problem of different causes at different levels. Something wholly new emerges at these higher levels of complexity.

Similar ontological differences exist in the self-organized emergence of consciousness, morality and the economy. In [a recent book, I showed] how economics and evolution are complex adaptive systems that learn and grow as they evolve from simple to complex and how they are autocatalytic, or containing self-driving feedback loops. It was therefore gratifying to find corroboration in Kauffman’s detailed explication of why such phenomena “cannot be deduced from physics, have causal powers of their own, and therefore are emergent real entities in the universe.” This creative process of emergence, Kauffman contends, “is so stunning, so overwhelming, so worthy of awe, gratitude and respect, that it is God enough for many of us. God, a fully natural God, is the very creativity of the universe.”

I have spent time with Stu Kauffman at two of the most sacred places on Earth: Cortona, Italy (under the Tuscan sun), and Esalen, California (above the Pacific Ocean), at conferences on the intersection of science and religion. He is one of the most spiritual scientists I know, a man of inestimable warmth and ecumenical tolerance, and his God 2.0 is a deity worthy of worship. But I am skeptical that it will replace God 1.0, Yahweh, whose Bronze Age program has been running for 6000 years on the software of our brains and culture.

(Michael Shermer - **Scientific American**) (112)

It is central to the thesis of this book that the concept of “God 2.0” (the immanent and creative “One,” or Absolute) has paradoxically existed for far longer in the software of our brains and culture than that of the transcendental “God 1.0.” It is just a shame that the latter became dominant within the Judaeo-Christian-Islamic tradition during the Dark Ages, and this has yet to be remedied in the minds of many people.

ON IMPENETRABLE MINDS:

The world is experiencing a conflict of unprecedented menace from people who are afflicted by not just certainty, but *religious* certainty, and who want to impose the apparent rules laid out in their so-called Holy Books on others. The site *beliefnet* puts the case from a theistic, and in particular fundamentalist Christian viewpoint:

“...Four hundred years after he died at the stake on orders of the Inquisition, Giordano Bruno remains a hero to free-thinkers and a heretic to the Roman Catholic Church.”

“Pope John Paul II... called on the church to mark the start of the third millennium of Christianity by acknowledging its mistakes of the past. In 1992, he forgave Galileo for insisting, correctly, that the Earth revolves around the sun, and last year he put Jan Huss, the Bohemian reformer, on the road to rehabilitation. ”

“But for Giordano Bruno, a failed Dominican monk who became a noted philosopher of the Renaissance, a playwright, courtier and, it is thought, a spy for Queen Elizabeth I, the church offers regret but no forgiveness. ”

“Bruno's thinking was 'incompatible with Christian thought,' Cardinal Paul Poupard told a Jesuit-sponsored symposium on the philosopher earlier this month. ”

“ 'I don't think, therefore, that you can or should speak of rehabilitation because, as regards the Giordano Bruno case, there are no grounds for such a hypothetical operation as instead did happen, for example, for Jan Huss and for Galileo,' Poupard said. ”

"But, he said, the church must regret burning Bruno at the stake because 'the use of coercion and of violent methods is absolutely incompatible with a sincere and authentic search for truth and with the affirmation of the evangelic truth.' ”

“In his book attacking the Oxford intellectuals, titled 'The Supper of Ashes,' he also defended Copernicus' theory of the planets revolving around the sun, taking issue with Aristotle's theory of a closed universe. ”

“In other writing, he rejected the Eucharist, the Trinity, the Incarnation and the existence of the soul. He contended God was the infinite cause of an infinite, pantheistic universe”...

(Note here that like Meister Eckhart before him, Bruno saw the soul as being an *aspect* of the Absolute:

“...And here one cannot speak of the soul any more, for she has lost her nature yonder in the oneness of the divine essence. There she is no more called soul, but is called immeasurable being”...)

Coming back to *Beliefnet* and Bruno:

“...An invitation in 1592 to go to Venice to teach Count Giovanni Mocenigo the science of memory led to his downfall. Mocenigo in short order turned him over to the Inquisition on a charge of heresy. ”

“After a nine-month trial, the Venice court sent him to Rome where he was imprisoned and underwent another trial that lasted seven years. ”

“Roberto Bellarmino, the Jesuit theologian who presided over the trial, convicted Bruno with reluctance, giving him 40 days to consider abjuring his heresy before he finally pronounced the death sentence on February 9, 1600. ”

“A witness, [Kaspar] Schoppe, reported in a letter that Bruno fell to his knees as the sentence was read, then stood up and told the judges, 'You who pronounce this sentence have more fear than I in hearing it.' ”

“Bruno was led to his death at dawn eight days later, naked and unrepentant. ‘When he appeared to be on the point of death he refused the image of the Saviour with his head turned away and scorn,’ Schoppe wrote. ”

“Bellarmino was said to have regretted Bruno's execution for the rest of his life. ”

<http://www.beliefnet.com/News/2000/02/Four-Centuries-Later-Vatican-Still-Condemns-Giordano-Brunos-Heresy.aspx?p=2#sthash.uvZ0DrXg.dpuf>

In 1930, Bellarmino was to be canonized as Saint Roberto Bellarmino.

The adherents of Athanasius apparently still have a considerable way to go in terms of their *“sincere and authentic search for truth.”* On the other hand the rabbi Yehoshua Ben Yosef absolutely condemned anyone using intimidation to impose dogmas:

“...You know that among the pagans their so-called rulers lord it over them, and their great men make their authority felt. This is not to happen among you” ...

Mark 10: 42, 43

Alas, more than a few Church leaders have been guilty of breaking this commandment.

ON FAITH:

Skepticism is the school of philosophy that holds that we can *know nothing for certain*, or almost nothing, of Reality. Against this, Descartes fought back with the assertion *“cogito ergo sum”* – I think, therefore I am. On the face of it, this is somewhat hard to deny. There is no agreement as to the nature of the rest of what we term Reality, apart from the fact that if matter exists, it is certainly **not** made up of “glassy little particles” (the original concept of atoms) bouncing randomly around. James Jeans and Arthur Eddington’s ideas are worth revisiting here:

“...The concepts which now prove to be fundamental to our understanding of Nature - a space which is finite; a space which is empty, so that one point [which appears to us occupied by a material body] differs from another solely in the properties of the space itself; four dimensional, seven and more dimensional spaces; a space which forever expands; a sequence of events which follows the laws of probability instead of the laws of causation - or, alternatively, a sequence of events which can only be fully and consistently described by going outside space and time, all these concepts seem to my mind to be structures of pure thought, incapable of realisation in any sense which would properly be described as material...”

Jeans

“...The stuff of the world is mind-stuff. The mind-stuff is not spread in space and time; these are part of the cyclic scheme ultimately derived out of it. But we must presume that in some other way or aspect it can be differentiated into parts. Only here and there does it rise to the level of consciousness, but from such islands proceeds all knowledge. Besides the direct knowledge contained in each self-knowing unit, there is inferential knowledge. The latter includes our knowledge of the physical world...”

Eddington

The “bottom line” of all this is that the existence of Mind is **primary** (absolutely certain), the existence of matter is **secondary** (inferred, and hence inherently uncertain). Thus we can conclude that, to paraphrase (and correct) Descartes:

Mind exists, therefore I am

Similarly, there is a strong argument that “Mind” created “matter,” and not the other way around. Great scientists such as Newton and Einstein have been astonished at the vast intellect revealed within the Natural Order:

“...This most beautiful system of the sun, planets and comets, could only proceed from the counsel and dominion of an intelligent and powerful Being...”

Isaac Newton Principia Mathematica

ON BEAUTY:

...within man is the soul of the whole; the wise silence; the universal beauty, to which every part and particle is equally related; the eternal ONE. And this deep power in which we exist and whose beatitude is all accessible to us, is not only self-sufficing and perfect in every hour, but the act of seeing and the thing seen, the seer and the spectacle, the subject and the object, are one. We see the world piece by piece, as the Sun, the Moon, the animal, the tree; but the whole, of which these are the shining parts, is the soul...

Ralph Waldo Emerson – **The Oversoul**

...when Zarathustra was thirty years old he left his home and the lake of his home and went into the mountains. Here he enjoyed his spirit and his solitude, and for ten years did not tire of it. But at last a change came over his heart, and one morning he rose with the dawn, stepped before the Sun, and spoke to it thus:

“...You Great Star, what would your happiness be had you not those for whom you shine?...”

Friedrich Nietzsche - **Thus Spake Zarathustra**

The Good, the True and the Beautiful in philosophy were held to

“...form a triad of terms which have been discussed together throughout the tradition of Western thought.”

“They have been called ‘transcendental’ on the ground that everything which is is in some measure or manner subject to denomination as true or false, good or evil, beautiful or ugly. But they have also been assigned to special spheres of being or subject matter - the True to thought and logic, the Good to action and morals, the Beautiful to enjoyment and aesthetics.”

The Great Ideas

Some thinkers have identified the source of beauty as “The One,” or in more philosophical terms, the Absolute. On the other hand, there is a case that Beauty lies in the eye of the beholder. Emerson’s argument would be that Truth embraces both of these concepts and thus that in the ultimate, these are just two ways of saying the same thing.

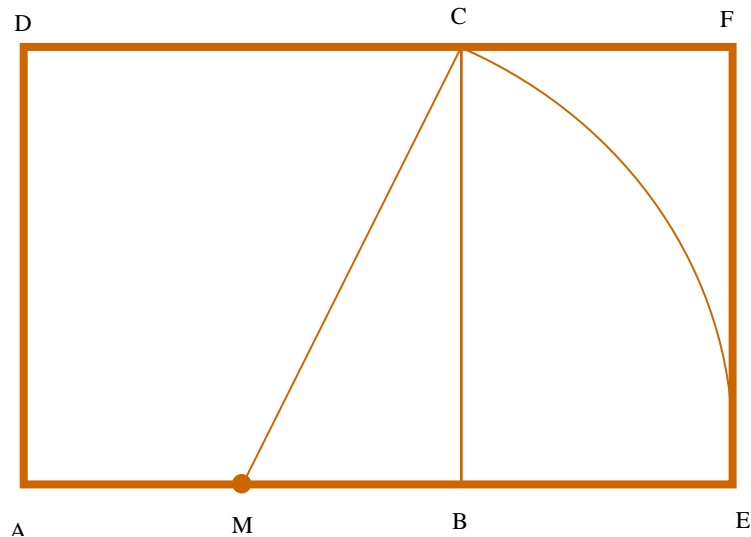
Beauty has also been defined in terms of the harmonious proportion of the parts to the whole. This has come down to us from the Greeks via the Renaissance. The *Golden Ratio*, for instance, was well known to the Egyptians, and was used extensively in the design of the Great Pyramid of Giza, which is believed to be 4600 years old. The Greeks used the ratio extensively in their architecture, including that of the Parthenon. Leonardo da Vinci reputedly employed it in determining the proportions of his Mona Lisa.

My computer encyclopedia tells me:

“...Golden section, also called the divine proportion, is the division of a line segment in such a way that the ratio of the whole segment to the larger part is equal to the ratio of the larger part to the smaller part. The ratio is approximately 1.61803 to 1.

A rectangle whose length and width correspond to this ratio is called a golden rectangle. Rectangles that look like a golden rectangle are more pleasing to the eye than other rectangles, though no one knows why. Many golden sections and golden rectangles appear in famous paintings, sculpture, and architecture. Buildings that incorporate golden sections and rectangles include the Parthenon, constructed in Athens in the 400’s B.C., and buildings designed in the 1900’s by the French architect Le Corbusier.

The figure with this article shows how to construct a golden rectangle and a golden section. First draw a square ABCD. Then, locate the midpoint M of side AB. Next, use a compass to extend AB to a point E so that ME = MC. Rectangle AEFD is a golden rectangle.



World Book: Contributor - George E. Martin, Ph.D., Professor Emeritus of Mathematics and Statistics, State University of New York, Albany.

The Nautilus shell has a mathematical beauty. The spiral structure of the nautilus is said to be based on the Golden Ratio, which has a numerical value of 1.6180339887... This relationship approximates to the principle of growth of organisms. It has been said that the ratio of longitudinal to transverse dimensions of many natural objects such as nuts and pinecones tends to approximate to the Golden Ratio.

[In High School I was lucky enough to have a mathematics teacher (Mr Donald Smallman) who appreciated the mathematical beauty of things. He introduced us to such concepts as the cycloid, the catenary, the parabola and the logarithmic spiral, although it was well outside our syllabus. The knowledge of these entities made mathematics suddenly come alive for me.]

The Golden Ratio is an irrational number which can be defined as that number which is equal to its own reciprocal plus one:

$$x = 1/x + 1$$

Multiplying both sides by x and transposing we have:

$$x^2 - x - 1 = 0$$

which is a quadratic equation. Solving this we have:

$$i.e. x = 1.61803... \text{ and } x = -0.61803...$$

The first number is usually referred to as the Golden Ratio and the second is the negative of its reciprocal. The ratio can also be obtained from the Fibonacci series, which starts with zero and one, with each successive number being obtained from the sum of the preceding two:

$$0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181 \dots$$

When you divide one number in the Fibonacci series by the number preceding it, you obtain a number which increasingly approaches to the Golden Ratio. For instance 4181 divided by 2584 equals 1.61803405572...

In other beautiful things in Nature, there is not the same sense of the beauty originating in mathematics, at least on the surface, but the facial features of the tiger are said to be in accord with the Fibonacci sequence. Beauty seems in this case to be chaotic, but within a more formal mathematical context:



Ramakrishnan

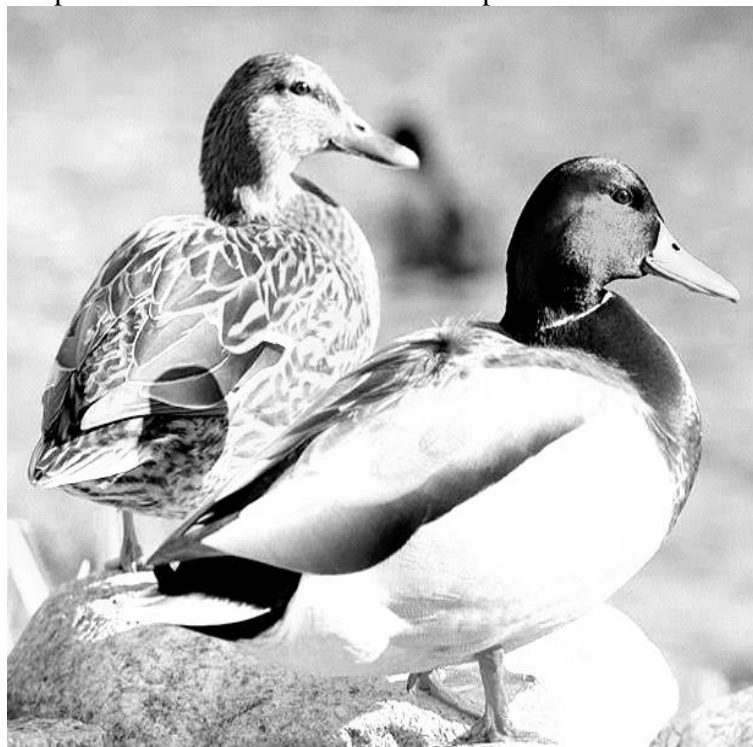
The Tyger

*Tyger! Tyger! burning bright
In the forests of the night,
What immortal hand or eye
Could frame thy fearful symmetry?
In what distant deeps or skies
Burned the fire of thine eyes?
On what wings dare he aspire?
What the hand dare seize the fire?
And what shoulder, and what art,
Could twist the sinews of thy heart?
And when thy heart began to beat,
What dread hand? And what dread feet?
What the hammer? What the chain?
In what furnace was thy brain?
What the anvil? What dread grasp
Dare its deadly terrors clasp?
When the stars threw down their spears
And watered heaven with their tears,
Did he smile his work to see?
Did he who made the Lamb make thee?
Tyger! Tyger! burning bright
In the forests of the night,
What immortal hand or eye
Dare frame thy fearful symmetry?*

As with the tiger, the eagle also possesses a wild and magnificent beauty, even though certainly one in which “form follows function:”



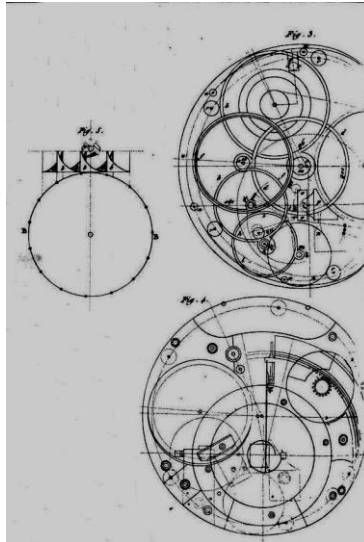
The Duck on the other hand is undoubtedly beautiful in its own way. Wild, yes, but not at all terrible, unless seen from the viewpoint of a worm at the bottom of a pond!..



Wikipedia

This then leads on to the question: *Are animals able to appreciate beauty?* Do the birds, who taught us the concept of music, realize that they and their songs are beautiful? Do the bees enjoy the beautiful colours and patterning and perfumes of the blossoms as they go about collecting their nectar? If so, what survival value does the sense of beauty have for them? How does their enjoyment relate to our own in this regard?

As an engineer, I would argue that a well-designed machine is often beautiful, even when designed on the principle of “form follows function.”



John Harrison's Chronometer

Although we find a machine such as this beautiful now, James Watt reputedly tried to have the functionality of his first steam engine concealed beneath an exterior resembling a Classical temple, and the beauty of the Eiffel Tower had to be made acceptable to the society of the day by adding purely ornamental Classically-inspired arches. In a more contemporary context, machines such as a classic sports car or a supersonic aircraft can generally be accepted as beautiful in their own way.

Looking from the philosophical viewpoint, we may ask: *is the spirit of beauty acquired or is it innate?* W.B. Yeats is one who thinks that it is both. In his view, poetry has to be synthesized “*out of the quarrel with ourselves*”:

“...We must not make a false faith by hiding from our thoughts the causes of doubt, for faith is the highest achievement of the human intellect, the only gift man can make to God, and therefore it must be offered in sincerity. Neither must he create, by hiding ugliness, a false beauty as our offering to the world. He can only create the greatest imaginable beauty who has endured all imaginable pangs, for only when we have seen what we dread shall we be rewarded by that dazzling, unforeseen, wing-footed wanderer. We could not find him if he were not in some sense of our being, and yet of our being but as water with fire, a noise with silence. He is of all things not impossible the most difficult, for that which comes easily can never be a portion of our being; soon got, soon gone, as the proverb says. I shall find the dark luminous, the void fruitful when I understand I have nothing, that the ringers in the tower have appointed for the hymen of the soul a passing bell...”

Per Amica Silentia Lunae

The psychotherapist Victor Frankl would certainly concur with this. As a survivor of the Nazi concentration camps of World War II, he writes in his book *Man's Search for Meaning* about the crucial importance of the sense of beauty which often exists despite, and perhaps partly because of, the extreme suffering. One wonders in this context whether, if Beauty did not exist in life, it would have to be invented:

...*Art existed in the camps. Tired, hungry, and frozen people composed music, drew pictures, and wrote poetry. There were even makeshift “concerts,” with good music, songs, and even humour.*



Auschwitz-Birkenau State Museum

*Against all odds, the aesthetic feeling, the ability to see the beautiful in Nature, had not disappeared. An exhausted man might draw the attention of a friend working next to him to a view of the setting sun through the trees of a winter forest. Frankl recalls: “One evening, when we were already resting on the floor of our hut, dead tired, soup bowls in hand, a fellow prisoner rushed in and asked us to run to the assembly grounds and see the wonderful sunset. Standing outside we saw sinister clouds glowing in the west and the whole sky alive with clouds of ever-changing shapes and colours, from steel blue to blood red. The desolate grey mud huts provided a sharp contrast, while the puddles on the muddy ground reflected the glowing sky. Then, after minutes of moving silence, one prisoner said to another, ‘How beautiful the world **could** be!’...”*

And further in the same book, spiritual strength and the prisoner’s appreciation of beauty seem to be linked again:

“...This young woman knew that she would die in the next few days. But when I talked to her she was cheerful in spite of this knowledge. ‘I am grateful that fate has hit me so hard,’ she told me. ‘In my former life I was spoiled and did not take spiritual accomplishments seriously.’ Pointing through the window of the hut, she said, ‘This tree here is the only friend I have in my loneliness.’ Through that window she could see just one branch of a chestnut tree, and on the branch were two blossoms. ‘I often talk to this tree,’ she said to me. I was startled and didn’t quite know how to take her words. Was she delirious? Did she have the occasional hallucinations? Anxiously I asked her if the tree replied. ‘Yes.’ What did it say to her? She answered, ‘It said to me, “I am here - I am here – I am life, eternal life...”’

*“...To be sure, man’s search for meaning and values may arouse inner tension rather than inner equilibrium. However, precisely this tension is an indispensable prerequisite for mental health.... There is much wisdom in the words of Nietzsche: ‘He who has a **why** to live for can bear almost any **how**...’ ”*

Towards the end of her life, in her eighties, my mother was partially blinded by cataracts. Although (or perhaps *because*) she had been a nurse all of her working life, she refused to have the relatively simple operation required to rectify the problem. I recall on one occasion walking along the beach with her when she unexpectedly glanced down and exclaimed “*Look! Isn't that beautiful!*” I looked down to see that she was pointing towards a short off-cut of new nylon rope discarded on the sand. The colour was a brilliant burnt orange as it caught the light of the afternoon sun, but it was rope nonetheless. With her faulty vision, she had mistaken it for splendidly coloured seaweed. In this instance, beauty was in the eye of the beholder, or possibly the *mind* of the beholder. Here it may be appropriate to paraphrase Nietzsche:

...You little piece of rope!... What would your beauty be without she for whom you glow?

ON THE THREE DIMENSIONS OF REALITY:

The Platonists' concept of *The Good*, *The True* and *The Beautiful* has been very significant in Western thought.

The True is absolute truth. It applies to the realm of logic. At the same time it exists independently of, but is applicable to, all other things. It is implied that there is an order in the Universe that is knowable, at least to a degree.

The Beautiful is absolute beauty. It embraces all aesthetics: Art, Literature, Mathematics, Science, or just the appreciation of Nature, each is inherently related to absolute beauty.

The Good applies to the realm of action and morals. It is more than absolute good. A better interpretation is absolute virtue, however virtue not only in the sense of uprightness, but strength of character, and excellence and nobility. This is the meaning of the Latin word *virtus*, of the Greek word *areté*, and of the related Sanskrit word *Rta*.

This last one is problematical, in that it can be argued, *what do you mean by Good?* In the context of the perennial philosophy, Good refers to being in line with the nature of the Absolute, as Emerson says:

...all power is of one kind, a sharing of the nature of the world. The mind that is parallel with the laws of Nature will be in the current of events, and strong with their strength...

And the Vedantists:

*...In the Rig Veda, the belief (or observation) that a natural justice and harmony pervades the natural world becomes manifest in the concept of **Rta**, which is both 'nature's way' and the order implicit in nature. Thus Rta bears a resemblance to the ancient Chinese concept of **Tao** and the Heraclitan, Stoic or Christian conceptions of the **Logos**.*

Wikipedia

This latter belief in the Greek concept of *areté* was central to the lives of the classical Greeks. In *Zen and the Art of Motorcycle Maintenance*, Robert Pirsig quotes from H.D.F. Kitto's *The Greeks* on this point:

...The Iliad is the story of the siege of Troy, which will fall in the dust, and of its defenders, who will be killed in battle. The wife of Hector, the leader, says to him: “Your strength will be your destruction; and you have no pity either for your infant son or for your unhappy wife who will soon be your widow. For soon the Achaeans will set upon you and kill you; and if I lose you it would be better for me to die.”

Her husband replies: “Well do I know this, and I am sure of it: that day is coming when the holy city of Troy will perish, and Priam and the people of wealthy Priam. But my grief is not so much for the Trojans, nor for Hecuba herself, nor for Priam the King, nor for my many noble brothers, who will be slain by the foe and will lie in the dust, as for you, when one of the bronze-clad Achaeans will carry you away in tears and end your days of freedom. Then you may live in Argos, and work at the loom in another woman's house, or perhaps carry water for a woman of Messene or Hyperia, sore against your will: but hard compulsion will lie upon you. And then a man will say as he sees you

weeping, 'This was the wife of Hector, who was the noblest in battle of the horse-taming Trojans, when they were fighting around Ilion.' This is what they will say: and it will be fresh grief for you, to fight against slavery bereft of a husband like that. But may I be dead, may the earth be heaped over my grave before I hear your cries, and of the violence done to you."

So spake shining Hector and held out his arms to his son. But the child screamed and shrank back into the bosom of the well-girdled nurse, for he took fright at the sight of his dear father - at the bronze and the crest of horsehair which he saw swaying terribly at the top of the helmet. His father laughed aloud, and his lady mother too. At once shining Hector took the helmet off his head and laid it on the ground, and when he had kissed his dear son and dandled him in his arms, he prayed to Zeus and to the other gods: Zeus and ye other gods, grant that this my son may be, as I am, most glorious among the Trojans and a man of might, and greatly rule in Ilion. And may they say, as he returns from war, "He is far better than his father."

"What moves the Greek warrior to deeds of heroism," Kitto comments, "is not a sense of duty as we understand it - duty towards others: it is rather duty towards himself. He strives after that which we translate virtue but is in Greek areté, excellence ...[areté] runs through Greek life..."

...Kitto had more to say about this areté of the ancient Greeks. "When we meet areté in Plato," he said, "we translate it 'virtue' and consequently lose all the flavour of it. 'Virtue,' at least in modern English, is almost entirely a moral word; 'areté,' on the other hand, is used indifferently in all the categories, and simply means excellence."

Thus the hero of the *Odyssey* is a great fighter, a wily schemer, a ready speaker, a man of stout heart and broad wisdom who knows that he must endure without too much complaining what the gods send; and he can both build and sail a boat, drive a furrow as straight as anyone, beat a young braggart at throwing the discus, challenge the Phaeacian youth at boxing, wrestling or running; flay, skin, cut up and cook an ox, and be moved to tears by a song. He is in fact an excellent all-rounder; he has surpassing areté.

Areté implies a respect for the wholeness or oneness of life, and a consequent dislike of specialisation. It implies a contempt for efficiency - or rather a much higher idea of efficiency, an efficiency which exists not in one department of life but in life itself...

...There, Phædrus thinks, is a definition of Quality that had existed a thousand years before the dialecticians ever thought to put it to word-traps. Anyone who cannot understand this meaning without logical definiens and definendum and differentia is either lying or so out of touch with the common lot of humanity as to be unworthy of receiving any reply whatsoever. Phædrus is fascinated too by the description of the motive of "duty toward self" which is an almost exact translation of the Sanskrit word *dharma*, sometimes described as the "one" of the Hindus. Can the *dharma* of the Hindus and the "virtue" of the ancient Greeks be identical?

Then Phædrus feels a tugging to read the passage again, and he does so and then - what's this?! - "That which we translate 'virtue' but is in Greek 'excellence'."

Lightning hits!

Quality! Virtue! Dharma! That is what the Sophists were teaching! Not ethical relativism. Not pristine "virtue." But areté. Excellence. Dharma! Before the Church of Reason. Before substance. Before form. Before mind and matter. Before dialectic itself. Quality had been absolute. Those first teachers of the Western world were teaching Quality, and the medium they had chosen was that of rhetoric. He has been doing it right all along...

In *Lila*, his sequel to *Zen and the Art of Motorcycle Maintenance*, Pirsig pursues this theme further:

...the Proto-Indo-European root of areté was the morpheme *rt*. There, beside areté, was a treasure

room of other derived “rt” words: arithmetic, aristocrat, art, rhetoric, worth, rite, wright, right (handed), and right (correct). All of these words except arithmetic seemed to have a vague thesaurus-like similarity to Quality...

(93)

He takes the thesis further to the related word in Sanskrit:

...**Rta**, which etymologically stands for “course” originally meant “cosmic order”...and later it also came to mean “right”...

Georg Feuerstein in his *Introduction to the Bhagavad Gita* writes independently but is in fundamental agreement. He writes of the relationship:

...This meaningful ambivalence is also preserved in the key concept of Krsna's ethical teachings - Dharma. This word has suffered a great many misinterpretations. Terms like 'virtue,' 'righteousness' or even 'religion' have habitually been employed in translation, but none of these renderings connotes the full meaning of the Sanskrit word. Dharma, from the root 'to hold, bear,' is used in the classical literature of India in an abundant variety of ways. Consequently it depends entirely on the context how this term should be translated. In Buddhist Scriptures alone, seven distinct usages of Dharma can be distinguished. For example, it denotes the 'doctrine' of the Buddha, the 'ultimate principles' into which he analysed the cosmic flux, the 'order' which exists in the universe and the 'transcendental reality' itself.

Two principal meanings of Dharma can be made out. It stands for 'the universal harmony' which is identical with man's essential being, and it represents the 'ethical norm' by which this essential being is actualised...

...Dharma thus appears as a particularisation on the human level of the supreme order prevailing in the universe, the 'lower nature' of God. This cosmic harmony, also called Rta in the Vedas, is manifest in the spontaneous rightness observable in the majestic movement of the stars, the recurrence of the seasons, the unswerving alternance of night and day, the unerring rhythm of birth, growth, death...

...Only when man has realised within himself this universal order can he be said to have fulfilled the individual moral norm or Dharma...

(*Introduction to the Bhagavad Gita*) (89)

As Pirsig points out, the concept of Rta as universal order is also part of Chinese culture in their concept of the Tao. He expresses the belief that *areté* (and hence *Dharma*), is sadly lacking within our contemporary mythos, where alienation and specialisation are rife:

...Phaedrus remembered a line from Thoreau: “You never gain something but that you lose something.” And now he began to see for the first time the unbelievable magnitude of what Man, when he gained power to understand and rule the world in terms of dialectic truths, had lost. He had built empires of scientific capability to manipulate the phenomena of nature into enormous manifestations of his own dreams of power and wealth - but for this he had exchanged an empire of understanding of equal magnitude: an understanding of what it is to be part of the world, and not an enemy of it...

(*Zen and the Art of Motorcycle Maintenance*) (71)

Recognition of the concepts of The Good, The True and The Beautiful, leads to the notion that these can plausibly be considered to make up “the Great Trinity” or the three dimensions of Reality. If so, then, these three aspects of an individual life are necessary for it to be meaningful:

Striving for the expression of Dharma or Rta or Areté (The Good)

Striving for knowledge (The True)

Striving for aesthetic creativity and awareness (The Beautiful).

On this basis, one could then go further to conclude that should any one of these dimensions be neglected, then life becomes fundamentally empty. In contemporary life we sadly undervalue all three. Each of us has the potential to achieve far more than we do in these aspects. In other words, each of us can aspire to work

towards becoming Nietzsche's Overman.

Within the tradition of the perennial philosophy, it is held that striving for the expression of areté necessarily calls for development of characteristics such as moral strength and integrity, creativity, physical and intellectual prowess, courage, sensitivity, determination, resilience, and willingness for hard work. Compassion and mutual help, as essential expressions of the Dharma, need to be based on the principle of “doing unto others as you would have them do unto you.” Compassion is by no means synonymous with pity. Pity is ignorance and self-pity the greatest ignorance of all. The principle of mutual help is subtle; it means helping others to achieve all aspects of their potential. It precludes “help” which leads to the end of striving for areté. Hence the ancient Chinese adage:

Give a man a fish and you feed him for a day.

Teach a man to fish and you feed him for a lifetime.

Pirsig was concerned with this concept. His search for Quality, (which he equates with the Absolute) led him to the causal relationship between this and the drive to persevere and achieve:

...I like the word “gumption” because it's so homely and so forlorn and so out of style it looks as if it needs a friend and isn't likely to reject anyone who comes along. It's an old Scottish word, once used a lot by pioneers, but which, like “kin,” seems to have all but dropped out of use. I like it also because it describes exactly what happens to someone who connects with Quality. He gets filled with gumption.

*The Greeks called it **enthousiasmos**, the root of “enthusiasm,” which means literally “filled with theos,” or God, or Quality. See how that fits?*

A person filled with gumption doesn't sit around dissipating and stewing about things. He's at the front of the train of his own awareness, watching to see what's up the track and meeting it when it comes. That's gumption...

...The gumption-filling process occurs when one is quiet long enough to see and feel the real Universe, not just one's stale opinions about it. But it's nothing exotic. That's why I like the word.

You see it often in people who return from long, quiet fishing trips. Often they're a little defensive about having put so much time to “no account” because there's no intellectual justification for what they've been doing. But the returned fisherman usually has a peculiar abundance of gumption, usually for the very same things he was sick to death of a few weeks before. He hasn't been wasting time. It's only our limited cultural viewpoint that makes it seem so...

(Zen and the Art of Motorcycle Maintenance) (71)

The concentration on the material and the neglect of the spiritual is widespread within today's society. This is our great 'sin of omission.' Within all traditional cultures there is a deep-rooted doctrine that nothing is had for nothing; in its modern version 'there is no such thing as a free lunch.' A person filled with the One is comfortable with paying the price for everything he or she wants. Emerson had something to say on this:

...Human labour, through all its forms, from the sharpening of a stake to the construction of a city or an epic, is one immense illustration of the perfect compensation of the Universe. The absolute balance of Give and Take, the doctrine that everything has its price - and if that price is not paid, not that thing but something else is obtained, and that it is impossible to get anything without its price - is not the less sublime in the columns of a ledger than in the budgets of States, in the laws of light and darkness, in all the action and reaction of Nature...

(Compensation) (27)

Finally, striving for aesthetic awareness and creativity is a dimension in which one can achieve enlightenment -

*...To see a World in a Grain of Sand
And a Heaven in a Wild Flower,
Hold Infinity in the palm of your hand
And Eternity in an hour...*

William Blake

It appears that it is in the creative unfolding of all three dimensions that an individual life is given its significance. We will return to this theme later.

ON THE WISDOM OF INDIGENOUS CULTURE:

A book on the traditional lore of brewing is not normally the sort of place one expects to find a discussion of deep and meaningful matters, but Stephen Harrod Buhner's *Sacred and Herbal Healing Beers* is no ordinary brewing book:

...[Indigenous cultures] survived for a very, very long time using something other than what [we] call science... Indigenous cultures, contrary to Western scholars' assertions, are extremely observant of the natural world. In fact, the members of such societies observe the actions of the ecosystem more exactly than Western observers. But more than this, they are working with systems of information gathering that are completely different from ours, systems based on different predicates, in language as specific as that of science.

Many contemporary writers are beginning to recognize this. Some have begun to suspect that in throwing out all of the ancient perspectives in favor of a scientific approach, we might have lost something intrinsic to who we are as a species. Perhaps no one has stated this so well as Vaclav Havel, the president of the Czech Republic, when he noted:

[T]he relationship to the world that modern science fostered and shaped now appears to have exhausted its potential. It is increasingly clear that, strangely, the relationship is missing something. It fails to connect with the most intrinsic nature of reality, and with natural human experience. It is now more of a source of disintegration and doubt than a source of integration and meaning. It produces what amounts to a state of schizophrenia. Man as observer is becoming alienated from himself as a being. Classical modern science described only the surface of things, a single dimension of reality. And the more dogmatically science treated it as the only dimension, as the very essence of reality, the more misleading it became. Today, for instance, we may know immeasurably more about the universe than our ancestors did, and yet, it seems they knew something more essential about it than we do, something that escapes us. The same is true of Nature and ourselves. The more thoroughly all our organs and their functions, their internal structure and the biochemical reactions that take place within them are described, the more we seem to fail to grasp the spirit, purpose and meaning of the system that they create together and that we experience as our unique self...

Many of us who have been raised in a universe-as-machine perspective have sensed this truth that Havel has made plain. Many of us suspect that the "essential" thing that our ancestors knew about the universe is that there is more to it than simple matter. That it is in some way alive. That sense, covered over by 500 years of "rationality," points toward the ancient mind-set that I call the Indigenous Mind. And many of us try in our own way to find our own way back...

(Sacred and Herbal Healing Beers) (121)

Our ancestors have bequeathed to us some of their Ur wisdom, although much has been forgotten. Remnants of this are embedded within contemporary language in words such as:

<i>spirit</i>	from the Latin root <i>spiritus</i> ; <u>breath</u> , <i>spirare</i> ; <u>breathe</u>
<i>atman</i> (Sanskrit; <u>spirit</u>)	related to the Greek root <i>atmos</i> ; <u>air</u>
<i>enthusiasm</i>	from the Greek <i>en theos</i> , meaning <u>god or spirit within</u>
<i>inspiration</i>	Latin <i>in</i> ; <u>into</u> and <i>spiritus</i> ; <u>spirit</u>

gentle, gentry	from the Latin <i>gentilis</i> ; <u>well bred</u>
aristocrat, right	from the Greek word <i>areté</i> ; <u>nobility</u>
<i>areté</i> (Greek; <u>nobility</u> , <u>excellence</u>)	related to the Sanskrit word <i>Rta</i> ; <u>Cosmic Order</u>

<i>omni-</i> (Latin; <u>All</u>)	related to the Sanskrit word <i>Om</i> ; <u>the One</u>
<i>holism, whole, health, holy</i>	all derived from the Germanic root <i>halig</i> ; <u>whole, healthy</u>
<i>God; good</i>	both derived from the same Germanic root
<i>diabolical, devil</i>	from the Greek root <i>diabolos</i> ; <u>double or dualistic</u>

<i>Cosmos</i>	from the Greek <i>kosmos</i> ; <u>order, beauty</u>
<i>Nature, nascent</i>	from the Latin roots <i>nasci, natus</i> ; <u>to be born</u>

With regard to Nature, the Romans acknowledged that long before their pantheon of gods had been established, the worship of Nature as the feminine principle or primal deity had been widespread. Hence the tradition of our still-common personification of “Mother Nature.”

ON THE MYTH OF HERCULES:

In accord with the ethic inherent in the perennial philosophy, a parable relating to Hercules (or Heracles) was recounted by the Greek historian and writer Xenophon, who was a pupil of Socrates. This has a great deal of significance in the context of contemporary Western culture:

*“...Prodikos the wise expresses himself to the like effect concerning Areté (Virtue) in the essay **On Herakles** that he recites to throngs of listeners. This, so far as I remember, is how he puts it:*

When Herakles was passing from boyhood to youth's estate, wherein the young, now becoming their own masters, show whether they will approach life by the path of virtue (areté) or the path of vice (kakia), he went out into a quiet place, and sat pondering which road to take. And there appeared two women of great stature making towards him. The one [Areté] was fair to see and of high bearing; and her limbs were adorned with purity, her eyes with modesty; sober was her figure, and her robe was white.

The other [Kakia] was plump and soft, with high feeding. Her face was made up to heighten its natural white and pink, her figure to exaggerate her height. Open-eyed was she; and dressed so as to disclose all her charms. Now she eyed herself; anon looked whether any noticed her; and often stole a glance at her own shadow. When they drew nigh to Herakles, the first pursued the even tenor of her way: but the other, all eager to outdo her, ran to meet him, crying: ‘Heracles, I see that you are in doubt which path to take towards life. Make me your friend; follow me, and I will lead you along the pleasantest and easiest road. You shall taste all the sweets of life; and hardship you shall never know. First, of wars and worries you shall not think, but shall ever be considering what choice food or drink you can find, what sight or sound will delight you, what touch or perfume; what tender love can give you most joy, what bed the softest slumbers; and how to come by all these pleasures with least trouble. And should there arise misgiving that lack of means may stint your enjoyments, never fear that I may lead you into winning them by toil and anguish of body and soul. Nay; you shall have the fruits of others' toil, and refrain from nothing that can bring you gain. For to my companions I give authority to pluck advantage where they will.’

Now when Herakles heard this, he asked, ‘Lady, pray what is your name?’ ‘My friends call me Happiness,’ she said, ‘but among those that hate me I am nicknamed Kakia (Vice).’

Meantime the other [Areté] had drawn near, and she said: 'I, too, am come to you, Herakles: I know your parents and I have taken note of your character during the time of your education. Therefore I hope that, if you take the road that leads to me, you will turn out a right good doer of high and noble deeds, and I shall be yet more highly honoured and more illustrious for the blessings I bestow. But I will not deceive you by a pleasant prelude: I will rather tell you truly the things that are, as the gods have ordained them. For of all things good and fair, the gods give nothing to man without toil and effort. If you want the favour of the gods, you must worship the gods: if you desire the love of friends, you must do good to your friends: if you covet honour from a city, you must aid that city: if you are fain to win the admiration of all Hellas for virtue, you must strive to do good to Hellas: if you want land to yield you fruits in abundance, you must cultivate that land: if you are resolved to get wealth from flocks, you must care for those flocks: if you essay to grow great through war and want power to liberate your friends and subdue your foes, you must learn the arts of war from those who know them and must practice their right use: and if you want your body to be strong, you must accustom your body to be the servant of your mind, and train it with toil and sweat.'

And Kakia (Vice), as Prodikos tells, answered and said: 'Herakles, mark you how hard and long is that road to joy, of which this woman tells? But I will lead you by a short and easy road to happiness.'

And Arété (Virtue) said: 'What good thing is thine, poor wretch, or what pleasant thing dost thou know, if thou wilt do nought to win them? Thou dost not even tarry for the desire of pleasant things, but fillest thyself with all things before thou desirest them, eating before thou art hungry, drinking before thou art thirsty, getting thee cooks, to give zest to eating, buying thee costly wines and running to and fro in search of snow in summer, to give zest to drinking; to soothe thy slumbers it is not enough for thee to buy soft coverlets, but thou must have frames for thy beds. For not toil, but the tedium of having nothing to do, makes thee long for sleep. Thou dost rouse lust by many a trick, when there is no need... thus thou trainest thy friends, waxing wanton by night, consuming in sleep the best hours of day. Immortal art thou, yet the outcast of the gods, the scorn of good men. Praise, sweetest of all things to hear, thou hearest not: the sweetest of all sights thou beholdest not, for never yet hast thou beheld a good work wrought by thyself. Who will believe what thou dost say? Who will grant what thou dost ask? Or what sane man will dare join thy throng? While thy votaries are young their bodies are weak, when they wax old, their souls are without sense; idle and sleek they thrive in youth, withered and weary they journey through old age, and their past deeds bring them shame, their present deeds distress. Pleasure they ran through in their youth: hardship they laid up for their old age. But I company with gods and good men, and no fair deed of god or man is done without my aid. I am first in honour among the gods and among men that are akin to me: to craftsmen a beloved fellow-worker, to masters a faithful guardian of the house, to servants a kindly protector: good helpmate in the toils of peace, staunch ally in the deeds of war, best partner in friendship. To my friends meat and drink bring sweet and simple enjoyment: for they wait 'till they crave them. And a sweeter sleep falls on them than on idle folk: they are not vexed at awaking from it, nor for its sake do they neglect to do their duties. The young rejoice to win the praise of the old; the elders are glad to be honoured by the young; with joy they recall their deeds past, and their present well-doing is joy to them, for through me they are dear to the gods, lovely to friends, precious to their native land. And when comes the appointed end, they lie not forgotten and dishonoured, but live on, sung and remembered for all time. O Herakles, thou son of goodly parents, if thou wilt labour earnestly on this wise, thou mayest have for thine own the most blessed happiness.'

Such, in outline, is Prodikos' story of the training of Herakles by Arété (Virtue); only he has clothed the thoughts in even finer phrases than I have done now."

(*Memorabilia*) (115)

Xenophon's best-known work, *Anabasis*, is a superb eyewitness account of the epic retreat of ten thousand Greek soldiers through enemy territory. Their commanding officers having been assassinated by the Persians, the relatively inexperienced thirty year-old Xenophon was elected to lead the troops on their two thousand four hundred kilometre trek home. Undoubtedly he would have seen this as a test of his *areté*.

ON AN IMPLICIT ETHIC FOR OUR TIME:

Acceptance of the broad concept of the perennial philosophy leads towards fundamental principles which have ramifications for the way we must act. The phrase "success in life" can only mean to have acted in accordance with the Will of the Absolute and having *reflected* the Absolute to the maximum extent on a personal level. All else is meaningless.

As we confront reality in this era of unprecedented destructive potential, we would do well to listen again to the meditation of Marcus Aurelius:

...inasmuch as there is this bond of kinship between myself and my fellow-parts, I shall do nothing that may injure their common welfare, but keep those kindred parts always purposefully in view, directing every impulse towards their good and away from anything that runs counter to it...

The principle of *doing unto others as you would have them do unto you* has now taken on an infinitely greater urgency than that of two thousand years ago.

At the highest level, material possessions can be seen and understood as superficial. In metaphorical terms, the Self, or Absolute, "possesses" everything, the personal self, nothing. In practice, this translates to the characteristic of the healthy personality which Maslow writes of as "*...the easy differentiation between ends (tranquility, serenity, peace) and means (money, power, status)...*" Sacrificing a principle for the sake of material gain is seen to be absolutely self-defeating; thus the Stoic concept that our virtue and our principles are ultimately our only true possessions.

It is contended that it is essential to be self-reliant and self-actualizing, not emotionally dependent on petitionary prayer to a transcendent God. As Khalil Gibran puts it:

"...God listens not to your words save when He Himself utters them through your lips..."
... "We cannot ask thee for aught, for thou knowest our needs before they are born in us"
"Thou art our need; and in giving us more of thyself thou givest us all."

A healthy balance needs to be maintained between individual needs and the needs of our world ecosystem. As the venerated Jewish sage of two thousand years ago, Rabbi Hillel, wrote:

If I am not for myself, who will be for me?
If I am for myself alone, what am I for?
If not now, when?

Thus living completely on the level of The One is as wrong as living completely on the level of The Many. Indian society went through this stage, and the response was expressed in the *Bhagavad Gita*, in which the objective of Dharma (or *virtus, areté*) had its renaissance. This lesson has been forgotten again in our time, and seems to have to be re-learned in times of adversity:

...The Gita gives lie to all those sweeping generalisations of uninformed Western critics who profess Indian history to be one long-drawn-out and pertinacious attempt to opt out of the realities of this world. The Gita is the revival of a life-style the beginnings of which date back to the earliest Vedic times and which was never really lost sight of in the long development of Indian culture, although the onslaught of Transcendentalism with its categorical demand for unflinching asceticism and total renunciation has often obscured this old teaching. Already Bhishma, a nobleman and leading figure in the great war between the Kurus and Pancalas, complained bitterly that fewer and fewer people respected the old tradition of Dharma, and they seemed all too keen to discard social ties and

responsibilities and flee to the forest...

(89)

Similarly the Roman statesman Cicero, who was strongly influenced by the Stoic ethos, deplored this lack of *virtus* (and the subsequent “flight to the forest”), in the context of his struggle to maintain the fledgling Roman democracy against the forces working to destroy it:

...Many of the leading Roman families [in the civil wars] lost their best men who might otherwise have survived to help, with Cicero, to save the Republic. His fate, he clearly realised, was bound up with theirs, but few of them seem to have had any sense of political reality or of the danger they were in. Cicero called these survivors of an heroic race “the fish breeders” because their pride was not in sustaining the Republic, but in their fish ponds. “Our leading men,” he said “think themselves in the seventh heaven if they have bearded mullets in their fish ponds that will come to hand for food.” When affairs moved to a crisis they were of no use at all... Cicero saw that he could expect no help from them. “They are such fools that they seem to expect that, though the Republic is lost, their fish ponds will be safe...”

(*Cicero and the Roman Republic*) (90)

The fall of the Roman republic led to the relentless disintegration of the Roman ethos in the period of empire and, therefore, to the Dark Ages of European civilisation. Our current time has a plethora of troubles which are no less momentous than that of Cicero’s, and which require very subtle responses, *including that of maintaining the balance between the perspective of the Whole and that of its constituent Parts.*

In the ultimate, after achieving identification with the Absolute, morals are transcended. Enlightenment makes acting in accordance with the Will of the Absolute the only path to follow. Consider Confucius’ way of putting this:

...At 15 years of age, I had my mind bent on learning. At 30, I stood firm. At 40, I had no doubts. At 50, I knew the decrees of Heaven. At 60, my ear was an obedient organ. At 70, I could follow what my heart desired, without transgressing what was right...

The crucial point he was trying to make is that no simple and easy formula or set of precepts can dictate how we are to behave. In each circumstance, the individual must endeavour to determine the Way for her- or himself. As Confucius pointed out, this is not an easy matter.

To achieve the highest possible development as individuals, it is necessary to transcend individuality (self) to realise (universal) Self. In some cases this ideal may necessarily lead to giving one’s life for a principle, such as resisting evil. The principles of “right effort” (enlightened striving), “right livelihood” (endeavouring not to harm other creatures), and “right mindfulness” would be held to be expressions of the transcendence of self.

This is the state in which one can begin to experience the unity of Reality: “*Suchness*” for the Eastern religions and arguably “*the Kingdom of Heaven*” for authentic Christianity. This concept has often been misunderstood; it means not so much just the subjugation of self, but more the expansion of consciousness towards the Universal Self which embraces all things. Alexander Pope’s words in *An Essay on Man* are in accord with this, and Emerson’s philosophy is along similar lines:

...all power is of one kind, a sharing of the nature of the world. The mind that is parallel with the laws of Nature will be in the current of events, and strong with their strength...

(Emerson: *Conduct of Life*)

Man has come to a point where our constructive and destructive potential is expanding exponentially. To survive in the future we must be worthy of holding that power. We must learn to overcome our egos and truly become 'gods.'

ON TAOISM AND “THE WAY”:

Man at his birth is supple and weak; at his death, firm and strong. (So it is with) all things. Trees and plants, in their early growth, are soft and brittle; at their death, dry and withered.

Thus it is that firmness and strength are the concomitants of death; softness and weakness, the concomitants of life.

Hence he who (relies on) the strength of his forces does not conquer; and a tree which is strong will fill the out-stretched arms, (and thereby invites the feller.)

Therefore the place of what is firm and strong is below, and that of what is soft and weak is above.

MICHAEL PUETT: “So we have started talking about the Way and let us now turn to what it would mean were we to understand the world in terms of the workings of the way.

Let me begin with a simple example. You're walking through the forest after a huge rainstorm, and you see lots of branches around. You also will notice the huge big oak trees on the ground.

Why?

Well, it's very simple. The big oak trees, which we foolishly by the way we value the world think of as these strong powerful trees, the fact is they're inflexible. So when a major storm comes, it simply knocks down the tree. The trees standing after that major rainstorm are the tiny, weak saplings, the ones that win the huge winds and rain come, it can simply shift back and then shift back again. It's fine. It moves with the elements, works with the elements.

It's weak. It's soft. It survives.

In other words, we tend to prize power, strength, domination, control, all of which because we tend to see the world in this differentiated state foolishly thinking the most powerful element in this differentiated world is by definition the strongest one.

We are fools.

The text will argue, on the contrary, power lies not in strength. It lies in weakness, not in hardness, in softness, the ability to work with the world. It's not the hard stone.

It's the water.

Water works with the world, shifts with the terrain, and because of that is able to alter it fundamentally.

Weakness is where real power lies.

Now from my putting it this way, you might think so is this a text then saying simply just try to go with the flow and don't change the world because that way you'll be more likely to survive?

No, because the text will go a step further.

Humans it turns out, of course, are not weak saplings. We're able to do more than simply shift with the wind and the rain. Because for a human, if you really understand the Way, you're not just learning how to be weak and soft in the sense of working with the world around you, you're also learning if you're reading this text carefully what it would mean to see the world in terms of an emergence from the Way, meaning the following. You would be able to sense all the time for every single situation occurring what it is that's leading that situation to develop as it does and therefore the little things you can do softly, weakly, that can alter that generation and that emergence.

“That's putting it very abstractly.

Let me get very concrete at an important way to read this text and understand it. So let's imagine you are going to be running a meeting, and you're going through the day knowing you have to do this.

But, of course, you didn't get enough sleep the night before. You're tired.

“You're very busy. You've got a ton of things to do before this meeting. You really didn't have time to prepare for the meeting fully. You walk into the meeting very frustrated, angry, tired, exhausted. Everyone immediately senses your anger and exhaustion.

You sit down. You're sitting down and that mood begins to affect the room. People begin to talk about the issues at hand. They sense you're not really on top of things. You're unprepared.

They're getting a little angry.

Their statements get a little snippy, a little bit rude. You start responding to them. They start responding to you. Anger begins to grow in the room, and eventually the meeting, well, falls completely apart.

A typical meeting. So let's imagine on the contrary that you've read the Laozi.

What the Laozi would recommend is the following. The day is gone exactly as I've mentioned.

You get to the edge of the meeting room. You stop. You calm yourself. You breathe deeply.

You become still, not literally, still in the sense of being calm in sensing the world around you.

You walk into the room, the very room that in the earlier scenario you helped to generate the atmosphere within.

“You do the same, only now sensing that a way that you are walking in, the tones of voice you use, the ways you raise issues or don't, you are going to help to generate the mood in that room. You walk in calm, sensing what's going on in the room, sensing the interactions going on, sensing the people who tend to be a little obtrusive and arrogant in the meeting, sensing the people who feel that they don't really have a voice in the meetings, sitting in the back a little concerned about the way the meeting is likely to go based upon their previous experience.

“You sense this calmly. You sit down. You begin to raise issues, not strongly, not even directly necessarily. You raise some concerns, some issues, concerns that actually would be understood, albeit perhaps in slightly different ways, by everyone in the room. You bring them together out of a sense of shared concern. You raise issues that can easily be talked about to address these shared concerns. You intentionally make eye contact with the people who maybe don't seem to feel as much of a part of the group, bringing them in. When the people who tend to be a bit arrogant for speaking a little bit too harshly or too much, you turn to others and bring them into the conversation.

You slowly begin to create an atmosphere where people begin listening to each other, responding to each other, feeling they can speak but feeling to not being overwhelmed by others taking too much power.

“And then you start raising a few more concerns and issues and things that you really think the meeting needs to be addressing. You begin to turn to, but now you've created an atmosphere where people are really together on it. They begin making comments, suggestions. People begin because of the atmosphere you've generated to respond to each other. They begin talking together.

“A consensus begins forming that ... goes beyond what you could have imagined walking into the room or any one of the people imagine walking into the room. And together you get these incredibly powerful ideas occurring. In the terminology of the Laozi, you are generating that. You're being like the Way. You are helping to generate this atmosphere within which these relations are developing, and you're actively -- a word I'll come back to momentarily -- guiding that conversation by the ways you are raising issues, using tones of voice, but always to bring people together. Now, let me pause on that word actively.

You're the one doing this, but note -- and this is going to be really important for this text-- no one is thinking of you as running it. You're certainly not dominating the room. You're not running it through strength, power. You're not trying to say my way is the way. On the contrary, people are seeing you-- and in the sense even correctly seeing you-- as simply a relatively quiet member of the team. They don't see you as, in fact, generating everything that's going on. In other words, you are being active, but you're being active by seemingly not being active. You're being active by being calm and still, not literally still but again still in the sense of helping to generate this atmosphere.

“You're active but only by being non-actively generating a world around you by the ways you act, the soft ways you act. This for the Dao de Jing is the key for how to act in the world. You are active but seemingly non-active. You're leading, but you're seemingly leading from behind. You're directing but not seeming to direct, all of which is another way of saying you're not trying to dominate a situation. You are working with the situation. Then again you're not a sapling. You're not simply going with the flow. You are actively directing things but in a non-active, non-directive sense. Hence all of the paradoxical language of this text, acting through not acting, leading by following, you become like the Way.

“The Way generates the world around us, and you become like that. Let me expand the point. Imagine as this text wants us to do that everything that exists is constantly in interaction with everything else, and the more you sense that, the more you can help generate situations around you, worlds around you, entire ways of being around you by your very act of being in the world but always through softness, weakness. This is the meaning of the text. Now still although we've given one example from the meeting, you may still be wondering but how would this work in any other arena of life. Well, this is the power of the text. It will argue it works in any arena of life, that consistently we fall into the danger of thinking that power, domination, control is the way to affect things.

“If you've read this text and understand the world in terms of generation, it will argue that is how you really have an impact in the world. [It will be argued] that ...[a] deep mystical understanding of the Way directly impact everything you do in the most mundane aspects of your life. And if the Laozi is right-- and I think it is clearly onto something -- it will fundamentally change how, to put it in strong terms, you go in to and actively work with virtually any situation you will ever be involved with...”

Michael Puett

Harvard University

ON A RADICAL CONSCIOUSNESS:

...As your breathing partakes of the circumfluent air, so let your thinking partake of the circumfluent Mind. For there is a mental Force which, for him who can draw it to himself, is no less ubiquitous and all-pervading than is the atmosphere for him who can breathe it...

(Marcus Aurelius) (1)

Within the context of this work, a valid question would be: were people such as Plato, Newton, Aristotle, Einstein, Socrates, Jesus, Spinoza, Buddha, Pythagoras, Gödel, Bohr, Jung, Goethe, Confucius, Blake, Wordsworth, Whitehead, Shelley, Leonardo, Nietzsche, Thoreau, Bruno, Tolstoy ...creative thinkers because of an ability to tap into the mental Force of which Marcus Aurelius speaks? Or was it that they were “in tune with Nature”? Or could this be the same thing? There is a case for an open-minded investigation of the phenomenon. In fact, this is happening in a significant number of scientific centres. The following extract discusses the scientific study of the process of meditation using modern brain scanning techniques, and its implications for the future:

...Attempts to synthesize the scientific and the sacred have reached the laboratory. At the University of Pennsylvania, for example, the work of psychiatrist and philosopher Eugene d'Aquili on brain function has made religious experience a scientifically observable phenomenon.

D'Aquili has formulated a neurological description of what traditional religion calls “the intuitive perception of God”. A person who “perceives God” sees reality as a unified whole, experiencing a feeling of oneness with the world. Such religious experiences seem to be a product of the parietal-occipital region of the non-dominant (right) side of the brain. In d'Aquili's opinion, the more scientists learn, the more imperative it will become for them to deal with fundamental questions and cast their lot with philosophers and theologians...

(Visions of a New Faith) (52)

In Zen Buddhism, the perception of the unified Whole is also central:

No longer aware of mind and object,

*I see earth, mountains, rivers at last.
The Universal Mind is everywhere.
Worldlings, facing it, can't make it out.*

(Daio)

In modern research into the brain's mode of behaviour during meditation, psychologists have rediscovered many of the concepts which have been known for millennia within traditional cultures. Dr Robert Ornstein, Associate Professor of Medical Psychology at the University of California at San Francisco, writes:

...The "mystic" experience brought about by concentrative meditation, deautomatization exercises, and other techniques intended to alter ordinary linear consciousness is, then, a shift from the normal, analytic world containing separate, discrete objects and persons to a second mode, an experience of "unity" and holistic perception. This experience is outside the province of language and rationality, since it is a mode of simultaneity, but it is a complementary dimension of consciousness that adds to and can give comprehension to the ordered sequence of "normal" thought...

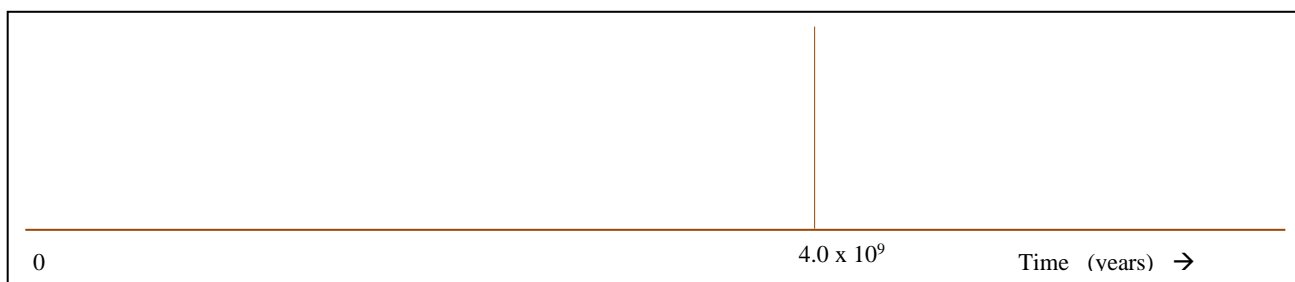
...the analytic mode, in which there is separation of objects, and of self from others (which the theologian Buber has termed the I-it relationship), has proved useful in individual biological survival; yet concentration on this mode may have evolved to fit the conditions of life many thousands of years ago.... The survival problems now facing us are collective rather than individual; they are problems of how to prevent a large nuclear war, pollution of the Earth, overpopulation; how to relate and understand diverse and divergent ideas, doctrines and people - all of which have constructed their own "reality"... A shift toward a comprehensive consciousness of the interconnectedness of life, toward a relinquishing of the "every man for himself" attitude inherent in our ordinary construction of consciousness, might enable us to take those "selfless" steps that could begin to solve our collective problems...

(*The Psychology of Consciousness*) (67)

ON THE UNIFICATION OF THE WORLD:

The species *Homo Sapiens* is the product of at least four billion years of a poignant struggle for survival of life on this planet. The struggle is necessarily tragic because the survival of one creature must be at the expense of others. That is the Law of existence. But at some point, the fight for survival must begin to endow us with the sense to transcend the purely dualistic level of existence, and to see that all things are interwoven, and in a very real sense, "children of the Absolute." As we do so, we will move into harmony with each other, and perhaps at some stage in the hopefully not too distant future, be able to identify ourselves with "The One." Seeing things from this point of view, whilst not neglecting the level of "The Many," is the key to coming to terms with Reality.

If this way of thinking becomes more general, the concepts of good and evil will also necessarily begin to be transcended; they have become manifest on our planet subsequent to the emergence of *Homo Sapiens*, around three hundred thousand years ago. Previously the level of consciousness was insufficient for the concepts to be meaningful. However, this apparently vast epoch is less than 0.01% of the time scale of life on our planet. If we draw a graph of the level of evil against time on such a scale, it will take the following form:



The reason for the apparently anomalous short-lived "spike" in the graph at time four billion years (i.e.

now), is that there is no possibility that the existing situation will continue. If we don't radically change our outlook, it is absolutely certain that humanity will destroy itself in some form of technological and/or ecological holocaust. If we postulate, say, a fifty percent probability of this happening in any given century from now, then in a millennium, the probability is 99.9%. However, even this apparently vast period of time registers as the merest whisker of a line on the graph; it corresponds to around 0.01% of the thickness of the vertical line!... Without a radical change in the way we interact, with each other and with our environment, the graph will also necessarily be appropriate to the existence of the human species. Arthur Koestler refers to this prospect in his book *Janus*:

...our present situation is without precedent in history... in all previous generations, man had to come to terms with the prospect of his death as an individual; the present generation is the first to face the prospect of the death of our species. Homo Sapiens arrived on the scene about a hundred thousand years ago, which is but the blinking of an eye on the evolutionary time scale. If he were to vanish now, his rise and fall would have been a brief episode, unsung and unlamented by other inhabitants of our galaxy. We know by now that other planets in the vastness of space are humming with life; that brief episode would probably never have come to their notice...

Shortly before the passing of the Age of the Dinosaurs, Life invented a radical new survival strategy: Love. Unlike the reptiles, mammals had the capacity to transcend aggression, and bond with and nurture their own kind. This gave them a survival advantage in an era of cataclysmic change. Mankind is now at a point at which it must learn to apply this invention to embrace *all* Life. Konrad Lorenz writes:

...We know that, in the evolution of vertebrates, the bond of personal love and friendship was the epoch-making invention created... when it became necessary for two or more individuals of an aggressive species to live peacefully together and to work for a common end. We know that human society is built on the foundation of this bond, but we have to recognise the fact that the bond has become too limited to encompass all it should: it prevents aggression only between those who know each other and are friends, while obviously it is all active hostility between all men of all nations or ideologies that must be stopped...

(On Aggression) (98)

Whereas the original shift was able to take place within the evolutionary timescale, the rapidity of change generated by modern technology means that humanity no longer has this luxury. Even a century is far too long. But mankind now has the advantage of high intelligence, the potential for love and, one would hope, moral courage. We must thus depend on the combination of these to sublimate our aggressive instincts and *give us the flexibility to deal with the rapidly accelerating changes in our existential condition.*

We have thus come to a "pinch point" in terms of human evolution. To progress past this point will require a step change in our understanding. The assessment of a fifty percent probability that catastrophe will befall civilisation in any given century is arguably optimistic. It is certain that technological advances will eventually enable thermonuclear explosions to be initiated without the need to resort to the use of a fission device as trigger. The "suitcase bomb" is not just a theoretical possibility. Similarly, lethal biological agents will become readily available to those who want them enough. In the present state of human consciousness, this would mean nothing less than a total breakdown of civilisation.

The metaphor of light passing through an optically polarized glass filter may be valid in this context:



Just as light with the wrong orientation can't pass through the filter, Mankind can't pass through the pinch point with our current mindset.

Within the context of this great Epic of Life, the history of Mankind seems delicate, fragile, and transient. An example of Emerson's underrated poetry outlines this point of view:

*'...Who shall tell what did befall,
Far away in time, when once,
Over the lifeless ball,
Hung idle stars and suns?
What god the element obeyed?
Wings of what wind the lichen bore,
Wafting the puny seed of power,
Which, lodged in rock, the rock abrade?
And well the primal pioneer
Knew the strong task to it assigned,
Patient through Heaven's enormous year
To build in matter home for mind.
From air the creeping centuries drew
The matted thicket low and wide,
This must the leaves of ages strew
The granite slab to clothe and hide,
Ere wheat can wave its golden pride.
What smiths, and in what furnace, rolled
(in dizzy aeons dim and mute
The reeling brain can ill compute)
Copper and iron, lead and gold?
What oldest star the time can save
Of races perishing to pave
The planet with a floor of lime?
Dust is their pyramid and mole:
Who saw what ferns and palms were pressed
Under the tumbling mountain's breast,
In the safe herbal of the coal?
But when the quarried means were piled,
All is waste and worthless, till
Arrives the wise selecting will
And, out of slime and chaos, Wit...'*

(Emerson)

The cosmic perspective must be borne in mind as we forge our strategy for the future. There will be no *Deus ex machina*, no God to part the Heavens and "pull us out of the fire."

Nietzsche warned that in terms of the evolution of the species, Man is in the process of attempting to cross over a metaphorical abyss. The existential angst experienced by too many people over the last century is just a glimpse into this abyss. It has become crucial that we now see things from a higher plane (arguably within the context of the perennial philosophy), if we hope to take our place within the true natural order of the Universe. We have generated extreme wealth and sensual gratification through our material and technological prowess, while simultaneously acting to destroy traditional culture and the natural world at an unparalleled rate. Perhaps not coincidentally, we have also managed to generate extremely powerful negative feedback loops through our addictions to fossil fuels, pornography, drugs, nuclear weaponry, mindless mass entertainment, and fundamentalisms of various kinds. Each of these is relentlessly contaminating us, spiritually and physically. The shadows projected onto the walls of the Plato's cave are transforming into a horror show:

*"...From this coarse mixture of terrestrial parts,
Desire and fear by turns possess their hearts,
And grief, and joy; nor can the groveling mind,*

*In the dark dungeon of the limbs confined,
Assert the native skies, or own its heavenly kind...*

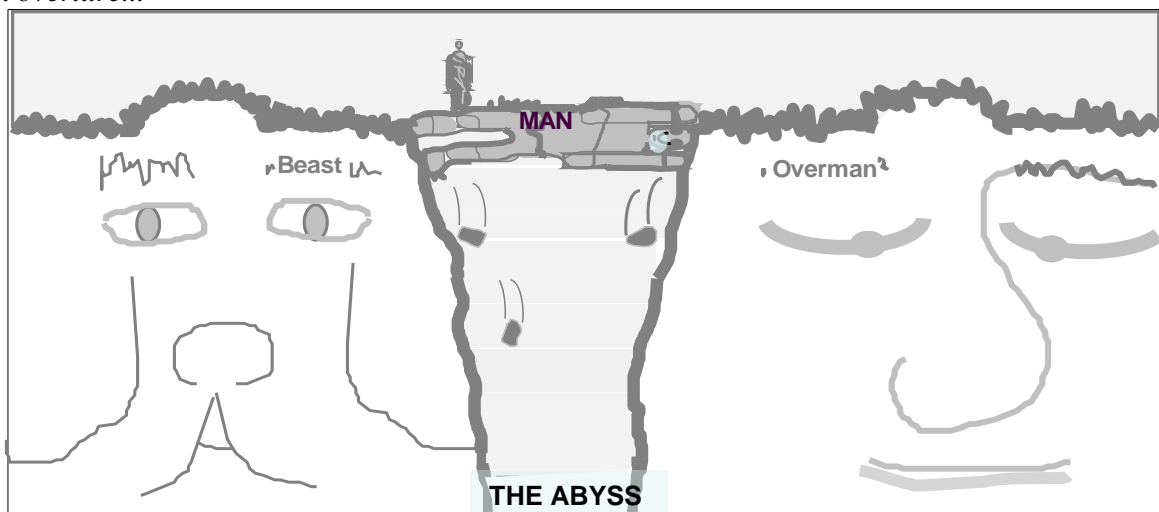
(*Aeneid* Virgil)

From the viewpoint of Plato's powerful metaphor, we must necessarily climb out of the "cave of ignorance."

The only pragmatic path for humanity lies in a profound change in our culture, away from its current "disconnectedness," to one which becomes, step by tentative step, more enlightened, more in line with Nature, and more in tune with the Infinite. Enlightenment must necessarily include the concepts of the perennial philosophy, and particularly a synthesis of analytical and holistic values. However, whether or not this happens, the result will appear the same as far as our little graph is concerned. One of the more discerning insights of Nietzsche was to see Man as only a brief interlude between Beast, which was inherently in harmony with its environment, and the Overman, which must again achieve harmony. Although he saw a time of great anarchy and strife ahead for 19th century Europe, he probably did not foresee the horror of nuclear, chemical and biological warfare. His concept of the era of Man as being the crossing of an abyss was profoundly right in hindsight. He would label the period before the vertical line on the graph as "BEAST" and that behind (should we arrive) as "OVERMAN"; the brief interval between the two (the vertical line), "MAN". Turning to Zarathustra again:

...Man is a rope, tied between Beast and Overman - a rope over an abyss. A dangerous across, a dangerous on-the-way, a dangerous looking-back, a dangerous shuddering and stopping.

What is great in Man is that he is a bridge and not an end: What can be loved in Man is that he is an overture...



...I teach you the overman. Man is something that shall be overcome. What have you done to overcome him?..

The image is brilliant, and the challenge profound. Without the broad acceptance of the implications of the perennial philosophy, the human race is just another "dead end" within the great Saga of Evolution, and our common lifestyle of spiritual nihilism and materialistic sensuality is seen to be absurd. Perhaps an archaeologist belonging to some intelligent species of the future may discover the remains of a garland of flowers in a human gravesite and wonder at its significance for the life of such a crude and barbarous being.

Alexander Solzhenitsyn delivered a very similar message:

"...Even if we are spared destruction by war, our lives will have to change if we want to save life from self-destruction. We cannot avoid revising the fundamental definitions of human life and human society. Is it true that man is above everything? Is there no Superior Spirit above him? Is it right that man's life and society's activities have to be determined by material [gain] in the first place? Is it permissible to promote such expansion to the detriment of our spiritual integrity?"

“If the world has not come to its end, it has approached a major turn in history, equal in importance to the turn from the Middle Ages to the Renaissance. It will exact from us a spiritual [toll], we shall have to rise to a new height of vision, to a new level of life where our physical nature will not be cursed as in the Middle Ages, but, even more importantly, our spiritual being will not be trampled upon as in the Modern era.”

“This ascension will be similar to climbing onto the next anthropologic stage. No one on Earth has any other way left but - upward.”

<http://www.vision.org/visionmedia/philosophy/pursuit-of-veritas/30411.aspx>

Or Nietzsche again:

“...Is not the greatness of this deed too great for us? Must we not ourselves become gods simply to seem worthy of it..? ”

The gentle and the noble must inherit the Earth if humanity is to survive and mature. The term “gentle” as used here is not to be confused in any way with “weak” - it is defined as those who are by nature civilized, humble and patient. Again, some words of Nietzsche are appropriate:

...He who is spiritually rich and independent is also the most powerful man in any case...

...I have found strength where one does not look for it: in simple, mild, and pleasant people, without the least desire to rule - and, conversely, the desire to rule has often appeared to me a sign of inward weakness: they fear their own slave soul and shroud it in a royal cloak (in the end, they still become the slaves of their followers, their fame, etc.) The powerful natures dominate, it is a necessity, they need not lift one finger. Even if, during their lifetime, they bury themselves in a garden house...

Nachlass – Friedrich Nietzsche

ON THE OTHER HAND:

This notion of a fundamental change in behaviour has had many false dawns before; not only false, but often disastrous. The establishment of Christianity as a State religion, the French Revolution, the Russian Revolution, the Chinese... Adolf Hitler misinterpreting the ideas of Nietzsche, hoping to create a new religion based on an absolute perversion of the “Will to Power”; in our own time, the call to a “War on Terror”... But all of these movements had a crucial element in common – varying degrees of totalitarian ideology. The arguments common to each were that *“He who is not with me is against me,”* and *“the end justifies the means.”* They justified the elimination of any individuals who stood in the way of the New Order, with the implication that it was something divine, something absolute, and dare one say it, often “mystical” in very much the wrong sense of the word. Unfortunately, there is a strong element of such a culture within contemporary “enlightened” nations:

“...In the history of humanity there are no civilisations or cultures which fail to manifest, in one or a thousand ways, this need for an absolute that is called heaven, freedom, a miracle, a lost paradise to be regained, peace, the going beyond History; there is no era which fails to express the need for man to be transfigured (“the new man,” “the superior man,” “the superman”) or which fails to express the desire for revolution, for the Ideal City, that is to say the idea to purify the world, to change it, to save it, to reintegrate it metaphysically.... ”

(Present Past, Past Present: A Personal Memoir Eugene Ionesco)

Exactly. Accordingly, there must be no thought of having achieved absolute Truths or Ideologies or Utopias. Truth has proven to be far too subtle for that. The objective towards which we need to strive is to carry out a non-dogmatic search for understanding on the *individual* level. As Gautama Buddha said - *“Work out your own salvation with diligence.”*

ON MODERNISM AND POSTMODERNISM:

The era characterised as being dominated by “Modernism” is generally accepted to be from the First World War to the Seventies. In science, it was a time of the triumph of reason and science and particularly the

development of nuclear power. In philosophy, it was the time of the development of positivism, and in psychology, the development of behaviourism. It has been said of Modernism:

“...Generally perceived as positivistic, technocentric, and rationalistic, universal modernism has been identified with the belief in linear progress, absolute truths, the rational planning of ideal social orders, and the standardization of knowledge and production...”

It has been rightly argued that at its worst, this is the foundation of the ethos which spawned the totalitarian regimes of the 20th century.

The antithesis of Modernism, in the form of systems of “belief” (in this case skepticism) which have been characterised as “Postmodernism,” is parallel to:

- developments in science, in which the uncertainty relations of quantum physics replaced the apparent certainty characterised by classical physics
- developments in logic, including Gödel’s incompleteness theorem
- developments in mathematics, including catastrophe and chaos theory

The danger with unchecked “Modernism” has been shown to be totalitarianism. The danger of unchecked “Postmodernism” is nihilism and chaos. What is needed is a dynamic tension between the two. Or as Socrates put it:

“...All things in moderation, including moderation...”

ON GURUS:

Many religions demand of their adherents an unconditional devotion to a priest, guru or teacher. There is an obvious danger of misuse of this principle. All teachers are human, and have human frailties. In many cases, it is through those frailties that they may gain some brilliant insights, and so the best traditions suggest that the real Teacher lies within oneself:

...The greatest Guru is your inner self. Truly he is the supreme teacher. He alone can take you to your goal and he alone meets you at the end of the road...

(Sri Nisargadatta Maharaj)

Thus, Life is the ultimate Teacher for anyone who wants to search: Wordsworth and Coleridge expressed this poetically, and Nietzsche affirmed a similar sentiment in *The Dancing Song* from *Thus Spake Zarathustra*:

Into your eyes I looked recently, O Life! And into the unfathomable I then seemed to be sinking. But you pulled me out with a golden fishing rod; and you laughed mockingly when I called you unfathomable.

“Thus runs the speech of all fish,” you said; “what they do not fathom is unfathomable. But I am merely changeable and wild and a woman in every way, and not virtuous - even if you men call me profound, faithful, eternal, and mysterious. But you men always present us with your own virtues, O you virtuous men!”...

...And when Life once asked of me, “Who is this Wisdom?” I answered fervently, “Oh yes, Wisdom! One thirsts after her and is never satisfied; one looks through veils, one grabs through nets. Is she beautiful? How should I know? But even the oldest carps are baited with her. She is changeable and stubborn; often I have seen her bite her lip and comb her hair against the grain...”

...When I said this to Life she laughed sarcastically and closed her eyes. “Of whom are you speaking?” she asked; “no doubt, of me...”

The consensus within the best traditions of the perennial philosophy is that a teacher cannot impart wisdom directly, but only show the pupil the disciplines that can lead him or her to begin to listen to Life. The following of a discipline, a “path with a heart,” is necessary for the seeker of enlightenment. Emerson calls on us to shun the crowd and plumb the depths of the Ocean within our own mind:

“...we are a mob. Man does not stand in awe of man, nor is his genius admonished to stay at home, to put itself in communication with the internal Ocean, but it goes abroad to beg a cup of water of the

urns of other men..."

Selected Essays - Emerson

And Nietzsche:

Now I go alone, my disciples. You, too, go now, alone.

Thus I want it.

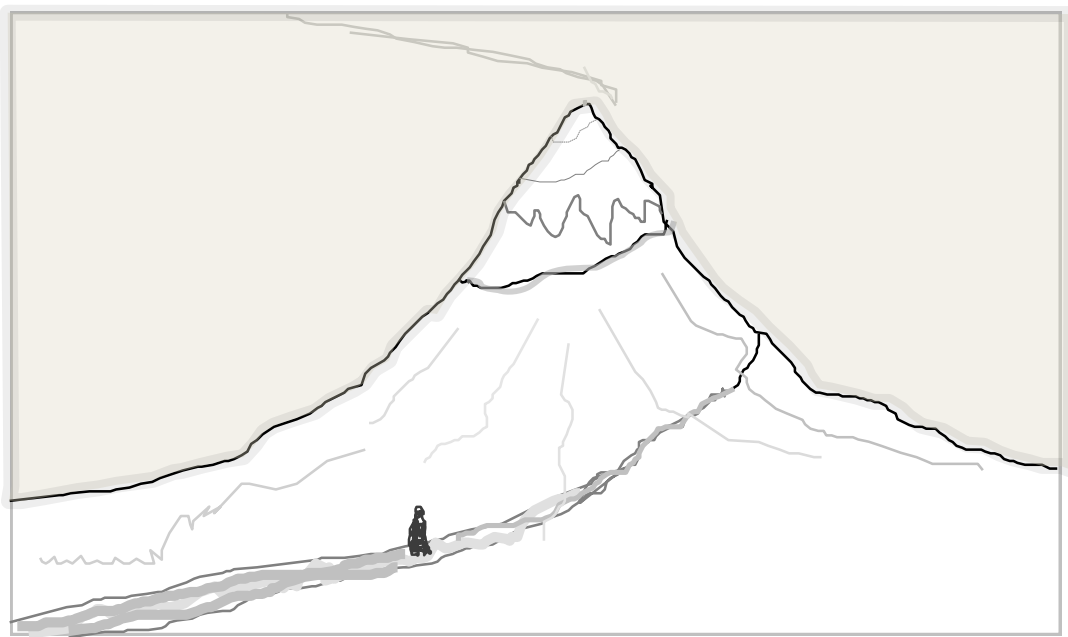
Go away from me and resist Zarathustra! And even better: be ashamed of him! Perhaps he deceived you.

The man of knowledge must not only love his enemies, he must be able to hate his friends.

One repays a teacher badly if one always remains nothing but a pupil. And why do you not want to pluck at my wreath?

You revere me: but what if your reverence tumbles one day? Beware lest a statue slay you.

You say that you believe in Zarathustra? But what matters Zarathustra? You are my believers - but what matter of believers?



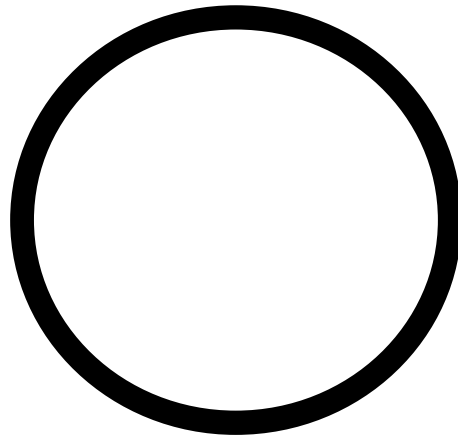
You had not yet sought yourselves: and you found me. Thus do all believers; therefore all faith amounts to so little.

Now I bid you lose me and find yourselves; and only when you have all denied me will I return to you.

(Ecce Homo)

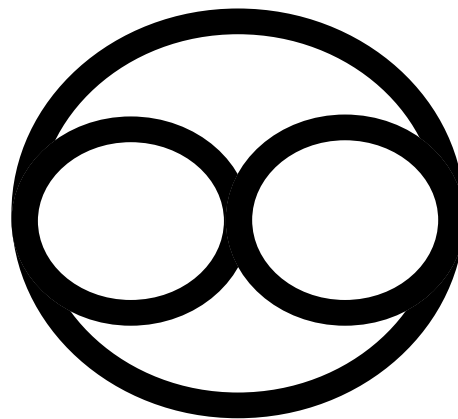
ON MONISM AND DUALISM:

The Pythagoreans developed the concepts of the **Monad**, the **Dyad**, and the **Triad**. The Pythagorean Monad represents the Universe which is seen as undifferentiated and wholly unified. This could be considered to characterise the state where ego is not yet developed; that is, the state we are in at our birth. It has been represented as:



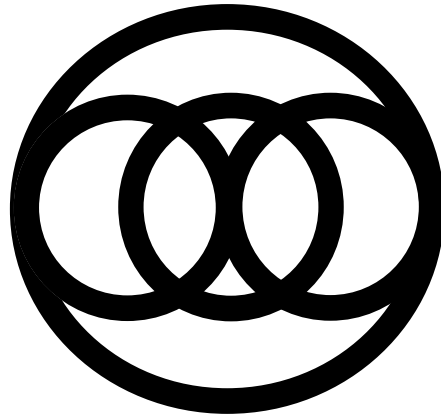
THE MONAD

The Pythagorean Dyad represents the state where differentiation or dualism occurs. The **I - It** level of consciousness is developed. Here is the level of passion: of love and hate, good and evil, hope and despair; of creation and destruction, positive and negative, the theistic concepts of God and the Devil. It has a level of validity, but a limited one. This is the level on which we have been “programmed” to exist by Nature in order to survive:



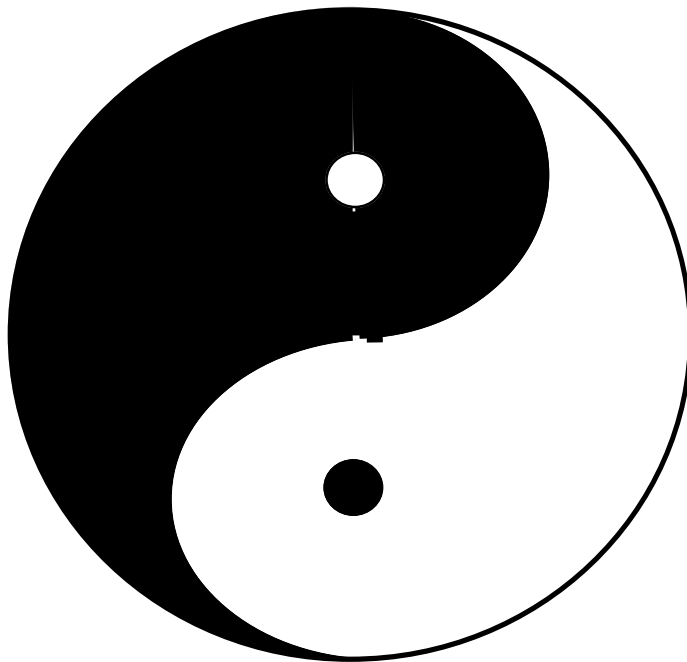
THE DYAD

The Pythagorean Triad represents a state where the gulf of dualism is bridged. The **I** and the **It** are bound together in harmony. The passions are not to be eliminated, but are seen within the larger context, and thus transcended: “...to transcend the lower is not to ignore it...” The bridging process entails mindfulness of an individual entity or self which reflects the cosmic Monad (or the One) on a microcosmic scale:



THE TRIAD

The Taoist and Confucian concept of yin and yang has some harmony with this: One yin and one yang make a tao, which reflects on a microcosmic scale the Great Tao, or universal order. The “evolved individual” of Taoist philosophy follows the Tao in acting impartially. This is called “holding to the centre”: To hold to the centre is to listen to the voice of the inner mind, which is a reflection of the Universal Mind. Impartiality does not entail a lack of emotion. Evolved Individuals are compassionate in their emotional and intellectual independence. Because they are centred they spontaneously act with benevolence:



THE TAO

Within the context of the perennial philosophy there is recognition that, as parts of a perfect whole, we are inherently perfect ourselves but all apparent defects and conflicts arise from our level of perception. This is expressed by Emerson:

*...I am born into the great, the universal Mind.
I, the imperfect, adore my own Perfect...*

and again, the Zen Buddhist:

*...One in All
All in One -*

*If only this were realised,
No more worry about your not being perfect.
Where Mind and each believing mind are undivided,
Where undivided are each believing mind and Mind,
This is where words fail...*

It is relevant to inquire at this point: *Within the realm of logic as we know it, could the One exist without the Many?* Is it possible for a single Mind-entity to exist? Surely any mind, even Absolute Mind, however defined, must necessarily act in time. *Without a multitude of things acting and reacting within time, the concept of thought would be meaningless.* It follows, then, that Nous or Universal Mind cannot logically exist in isolation from a manifold world. It may well be that it was with this concept in mind that Isaac Newton expressed the opinion that the Universe is the “*sensorium,*” or *sensory organ,* of the Absolute.

There is an obvious problem with our thinking of a universal Mind. We generally associate mind with a material brain, incorporating billions of neurons in complex interaction. In this context, what could be the mechanism through which a universal Mind acts? Well, as has been pointed out by the quantum physicists, consciousness affects the wave function of matter. In investigation of the Einstein, Podolsky and Rosen (EPR) paradox, it has been shown that the observed physical state of a particle is instantaneously transmitted across space. *In other words, as Brian Josephson puts it, the Quantum Field could be the mechanism through which the universal Mind functions, and in this scenario, each individual mind would be a “node” within the universal Mind.*

The logical question may then arise that the existence of Universal Mind would depend on the existence of Life in the Universe, and hence could not exist at the beginning of time. There are two answers to this problem. The first is that standard Quantum theory has the same difficulty in that it requires the existence of consciousness in order to collapse the quantum wave function and hence create ‘Reality’:

‘...The precise nature of reality... has to await the participation of a conscious observer. In this way, mind can be made responsible for the retroactive creation of reality - even a reality that existed before there were people...’

Paul Davies

The other possibility is that both time and space are “circular.” In a hypersphere, if one could travel far enough, one would eventually come back to the same place. Similarly, the Universe may not have had a beginning in time. This is certainly a suggestion which is taken very seriously within contemporary cosmology.

It’s interesting that within this concept is the underlying principle at the heart of Einstein’s theory of relativity: *The Cosmos could not logically exist in the form of a single body.* The concepts of space, time, movement and scale are totally devoid of meaning until a multitude of bodies comes to exist, one in which *relationships* can be present. What could the single body move *relative* to? With a single body, there can be no events. With no events, how could time be measured? The concept of Time would be meaningless. If a body is to be large or small, it must be so in *relation* to something else. Scale depends on relation. It is thus the *interaction* and *relation* of all things that give birth to Universal Reality, making feasible the concepts that we take for granted, such as inertia, time, gravitation, matter, energy, and indeed less tangible things such as love, anger, and the evolution of life.

The affirmation at the core of the perennial philosophy, then, is that the concepts of the One and the Many, of holism and analysis, are necessarily complementary and not mutually exclusive. The *I* and the *It* are recognised, but are seen within the broader context of the Totality.

ON REASON AND PASSION:

As intelligent, conscious beings, we are torn between the exigencies of reason and passion. In this respect, Plato introduced the metaphor of the two horses. Passion is the dark horse, dragging the soul downwards to dualism, and Reason is the white horse, striving to carry the soul up towards the union with the One. In

a similar context, Nietzsche used Dionysus and Apollo as metaphorical archetypes representing the passionate and rational aspects of life respectively. However, where Plato discriminated in favour of reason, Nietzsche argued that this was a fundamental mistake, and that both were equally valid in the realm of the Many. He argued that the areté established by the Ancient Greeks had been founded on this balance, and that Plato's, or perhaps Socrates', apparent denial of this had precipitated the decline of the Western ethos from the time of the Classical Greeks, thus leading to the nihilism of today.

In consideration of the multitude of creatures which have existed on Earth since the dawn of Life, most have endured distressing deaths, whether through starvation, disease, old age, or being killed and eaten by predators. But this, of necessity, is an integral aspect of the realm of the Many, the rules of the great Game. Quoting Nietzsche again, where he argues that the Absolute's striving to create has necessitated this:

...Dionysian art, too, wishes to convince us of the eternal joy of existence: only we are to seek this joy not in the phenomena, but behind them. We are to recognise that all that comes into being must be ready for a sorrowful end; we are forced to look into the terror of the individual existence - yet we are not to become rigid with fear: a metaphysical comfort tears us momentarily from the bustle of the changing figures. We are really for a brief moment primordial being itself, feeling its raging desire for existence; the struggle, the pain, the destruction of phenomena, now appear necessary to us, in view of the excess of countless forms of existence which force and push one another into life, in view of the exuberant fertility of the universal Will. We are pierced by the maddening sting of these pains just when we have become, as it were, one with the infinite primordial joy in existence, and when we anticipate, in Dionysian ecstasy, the indestructibility and eternity of this joy. In spite of fear and pity, we are the happy living beings, not as individuals, but as the one living being, with whose creative joy we are united...

(The Birth of Tragedy) (96)

Similarly in Emerson's world-view, true Reality is at the "cutting edge" between Passion and Reason, Savagery and Civilisation:

...A cultivated man, wise to know and bold to perform, is the end to which Nature works... In history, the great moment is, when the savage is just ceasing to be a savage, with all his hairy Pelasgic strength directed on his opening sense of beauty : - and you have Pericles and Phidias, - not yet passed over into Corinthian civility. Everything good in Nature and the world is in that moment of transition, when the swarthy juices still flow plentifully from Nature, but their astringency or acidity is got out by ethics and humanity...

(Power) (99)

The key concepts here are "*the swarthy juices still flow plentifully from Nature*" (read healthy natural instincts) and "*...their astringency or acidity is got out by ethics and humanity*"... These things transcend the realm of the Many.

ON THE MEANINGS OF EXISTENCE:

It has been suggested that from the viewpoint of the perennial philosophy, existence within the realm of the Many is deemed to be real, but less real than that of the One:

... "only the Absolute is fully real. All of its constituent parts have a reality which is a 'reflection' of the ultimate Reality."

A metaphor used within Zen is that of the Moon reflected in water: there is only one Moon, but there are many reflections in dewdrops, ponds, lakes, seas and oceans. There is a sense in which these reflections are real, but this reality is *derivative* of a higher reality. Thus within the tradition, existence is seen by some as a Sacred Game: The Absolute, through each of us, is simultaneously playing an infinite number of "*games of solitaire*":

...Children, who play life, discern its true law and relations more clearly than men, who fail to live it worthily, but who think that they are wiser by experience, that is, by failure...

(Thoreau)

And similarly, from Nietzsche, seeing reality with new eyes:

...With the strength of his spiritual eye and insight grows distance and, as it were, the space around man: his world becomes more profound; ever new stars, ever new riddles and images become visible for him. Perhaps everything on which the spirit's eye has exercised its acuteness and thoughtfulness was nothing but an occasion for this exercise, a playful matter, something for children and those who are childish. Perhaps the day will come when the most solemn concepts which have caused the most fights and suffering... will seem no more important to us than a child's toy and a child's pain seem to an old man - and perhaps "the old man" will then be in need of another toy and another pain - still child enough, an eternal child!

(Beyond Good and Evil)

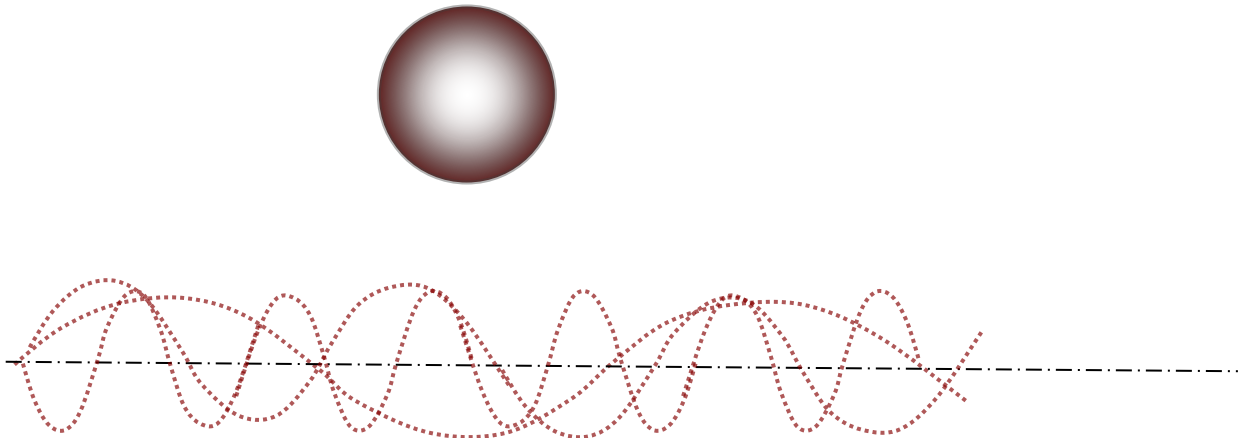
(82)

The perennial philosopher may claim, then, that the individual existence has no real meaning (at the level of the One), but "in the scheme of things," has profound meaning (at the level of the Many). For instance, without the existence of Mind, without consciousness, the concept of Beauty would be empty. Recall how Nietzsche expressed it magnificently at the beginning of *Thus Spake Zarathustra*:

... "You Great Star... what would your happiness be had you not those for whom you shine...?"

ON THE ACTION AND THE THING:

On one occasion while walking along the beach, my thoughts turned to the waves crashing on the shore, which then led to the recollection that in Polynesian cultures, waves are considered not as *things*, but *actions* and thus their word for "wave" is a verb, not a noun. The next link in this train of thought was that according to quantum theory, a subatomic particle, and in fact all material things, can be seen as having characteristics of both waves and collections of particles, and hence we as entities can be regarded in one sense as being essentially profoundly complex patterns of fluctuations within the Quantum Field. *Actions*, not things. This is not metaphysics - it follows logically from the most fundamental physics.



There is thus a compelling case that we as "individuals," and in fact all things, are in a very real sense merely "waves" within the "Sea" of the Absolute, and hence fluctuations within the Quantum Field. The Sea has a higher level of reality than the wave, and the wave's essential reality is derivative of, and hence an aspect of the Sea.

ON THE GENIUS WITHIN:

In his very thought provoking work *The Genius Within: Discovering the Intelligence of Every Living Thing*, the neurosurgeon Frank Vertosick discusses forms of intelligence which are universal throughout the living world. The brain is an example of one type of neural network, but many of the same principles inherent within the "agency" of the brain have also been found to exist in colonies of organisms such as viruses,

bacteria, slime moulds and insects. The principal difference lies in the mode of communication within the network. For instance ant colonies (both white and black), as outlined in the article by Eugene Marais, have demonstrated an ability to act as a single organism. However, rather than communicating by means of electronic signals as do the neurons in our brains, the ants activate their neural networks mainly by the use of chemical signals. The result is the same, but the process is, of course, far more leisurely.

Certainly, the “quickness” of this form of intelligence cannot match that of our supercomputers, but in other respects it is far more than a match. In a matter of seventy years, for instance, bacteria have managed to overcome every antibiotic that modern science has hurled at them. *Scientists had confidently expected that this evolution would require many millions of years of mutation by the mechanism of chance. On the contrary, its development has been virtually “instantaneous,” by the use of a form of “intelligent design.” But this is an intelligent design which arises naturally from within Nature. No external agency is required.*

The American pioneer in mathematical genetics H.S. Jennings wrote at the beginning of the 20th century about intelligence in groups of single-celled organisms:

“...intelligence is commonly held to consist essentially in the modification of behaviour in accordance with experience. If an organism reacts in a certain way under certain conditions, and continues this reaction no matter how disastrous the effects, we say that its behaviour is unintelligent. If on the other hand, it modifies its behaviour in such a way as to make it more adequate, we consider the behaviour to this extent intelligent. It is the 'correlation of experiences and actions' that constitute, as Hobbhouse (1901) has put it, 'the precise work of intelligence.' It appears clear that we find the beginnings of such adaptive changes of behaviour even in the Protozoa...”

“...The writer is thoroughly convinced after long study of the behaviour of the amoeba, that if it were a large animal, so as to come within the everyday experience of human beings, its behaviour would at once call forth the attribution to it of states of pleasure and pain, of hunger, desire, and the like, on precisely the same basis as we attribute these things to a dog”...

The consensus of contemporary science is in general agreement:

“...One way to get around the conclusion that bacteria think the way humans think is to say that all the complexity in the world emerges from the simple actions of many “dumb” actors — biological molecules and individual cells, whether they are elegantly differentiated parts of a multicellular organism or bacteria and archaea. In this view, neither some overriding sentience nor individual organisms have any influence over the process.”

*“So maybe bacteria are just computers, which so far, despite humans’ unending fantasies of conscious machines, aren’t yet really thinking. But University of Chicago microbial geneticist James Shapiro believes they come extremely close. He sees bacteria as consummate practitioners of information management, plus a bit more. They 'have ways of acquiring information both from the outside and the inside,' he says, 'and they can do appropriate things on the basis of that information. So they must have some way to compute the proper outcome.' It is these 'sophisticated information processing capacities,' Shapiro wrote in the paper **Bacteria Are Small but not Stupid**, that represent 'another step away from the anthropocentric view of the universe. ... Our status as the only sentient beings on the planet is dissolving as we learn more about how smart even the smallest living cells can be...’ ”*

<http://www.psmag.com/science/bacteria-r-us-23628/>

In the light of this, there’s a need for a fundamental rethink of our view of the interrelationship of all Life, and of Man’s place within the Natural order. Arguably, we live surrounded by a veritable “jungle” of what are, in their own subtle ways, extraordinarily intelligent entities. The intelligence of a single human being is feeble in comparison to that of the great communities of organisms making up the Noösphere “*in which we live and move, and have our being.*” The fable of the hare and the tortoise comes to mind; although the hare was faster in the short term, the tortoise eventually won the race. The term Noösphere is used here in a much broader sense than was originally intended by Vladimir Vernadsky and Teilhard de Chardin, where

it tended to be limited to the sphere of human thought.

If intelligence is rightly defined in terms of the ability to adapt appropriately to changes within the environment, then there is a strong argument that without a profound change, the intelligence of our species must be considered extremely primitive. We risk becoming a mere “flash in the pan” from an evolutionary context and won’t at all, to borrow from Shakespeare, ‘bestride the narrow world like a Colossus’ as we now imagine ourselves to be doing. Our friends and cousins the bacteria and viruses may have the last laugh.

ON THE CAVE, THE SUN AND THE RETURN:

Plato’s ideal philosopher was required to be active within his community. Leading on from his allegory of the Cave, he proposed that the philosopher, after achieving enlightenment (symbolised by the vision of the Sun experienced on emerging from the Cave), would then be obliged to return to help his fellow men in the depths. The ultimate objective of all learning was to help others make the climb, and to develop communities which had the ability to conduct themselves in a sane manner:

...our job as law-givers is to compel the best minds to attain what we have called the highest form of knowledge, and to ascend to the vision of the Good as we have described, and when they have achieved this and see well enough, prevent them from behaving as they are now allowed to.

“What do you mean by that?”

Remaining in the upper world, and refusing to return again to the prisoners in the cave below and share their labours and rewards, whether trivial or serious.

[They must each] descend in turn and live with [their] fellows in the cave and get used to seeing in the dark; once [they] get used to it [they] will see a thousand times better than [the prisoners] do and will distinguish the various shadows, and know what they are shadows of, because [they] have seen the truth about things admirable and just and good. And so our State and yours will be really awake, and not merely dreaming like most societies today, with their shadow battles and their struggles for political power, which they treat as some great prize. The truth is quite different: the State whose prospective rulers come to their duties with least enthusiasm is bound to have the best and most tranquil government...

(The Republic) (51)

Enlightened education should arguably embrace an open, non-dogmatic ethos that takes on board of all that has been learned in the fields of physics, biology, systems theory, and psychology. Only the broadest interpretation of the perennial philosophy can provide such a context, within which all other learning can make sense; certainly it was the belief of the Pythagoreans and Platonists that education meant far more than the mere imparting of information:

...It involves the redirection of the whole personality; in modern terms, education is the equivalent of a conversion...

...It is well known that Plato was profoundly influenced by the doctrines of the Pythagoreans and this is evident in two ways. The conception of education as the conversion of the soul, the turning from preoccupation with the visible world to the contemplation of the realities which gave it significance, is characteristically Pythagorean...

...By nature and training the ruler must be a philosopher. “Unless it happens either that philosophers acquire the kingly power in states, or that those who are now called kings and potentates be imbued with a sufficient measure of genuine philosophy, that is to say, unless political power and philosophy be united in the same person - there will be no deliverance, my dear Glaucon, for cities, nor yet, I believe, for the human race...”

(A Short History of Educational Ideas) (74)

Arguably the nearest any culture has come to systematizing philosophy within government was that of the ancient Chinese. It ultimately failed because of their lack of recognition of the need for an on-going

Dialectic in order to deal with the changing Reality. Which formula for dealing with Reality is able to endure forever? Again, from Heraclitus:

“...All things come out of the One and the One out of all things... I see nothing but Becoming. Be not deceived! It is the fault of your limited outlook and not the fault of the essence of things if you believe that you see firm land anywhere in the ocean of Becoming and Passing. You need names for things, just as if they had a rigid permanence, but the very river in which you bathe a second time is no longer the same one which you entered before...”

The original aim of philosophy was to provide tools to help the ordinary person in living a good life. There is an argument that materialism and the so-called scientific method have warped much of modern philosophy and led to its becoming a minor tool of science and technology rather than their master. This is indisputable, at least, in the case of logical positivism. Within the Postmodern paradigm, philosophers have abandoned all attempts at developing a system which we can use to deal with life. In a society which presumes to call itself civilised, this is to be deplored, and yet it merely reflects the contemporary mythos.

Similarly, few of the leaders and policy-makers in our society have pretensions of having any acquaintance with philosophy. With very little opposition, they seem to have made the primary purpose of education that of facilitating the growth of the Gross National Product. Carlyle's warning is again appropriate here. One of the great afflictions of our time is the rise of the specialist. We are governed by legal, financial, and other experts who do not pretend to see the larger picture.

ON LIVING WELL WITHIN A FRAGMENTED CULTURE:

The lack of “areté” within our contemporary community is perhaps best demonstrated in our attitude to sport, the original intention of which was to develop and demonstrate character. The current tendency to narrow specialisation and the use of performance-enhancing drugs (the “win-at-all-costs” ethic) would fill the ancient Greeks with utter contempt:

...[Today] it is sometimes made a reproach that a man “makes a religion of games.” The Greek did not do this, but he did something perhaps more surprising: he made games part of his religion... [and] since areté is of the mind as well as the body, there was not the slightest incongruity or affectation in combining musical contests with athletic...

...It was areté that the games were designed to test - the areté of the whole man, not merely a specialised skill... The great event was the pentathlon: a race, a jump, throwing the discus, and the javelin, and wrestling. If you won this, you were a man... As for the skill shown by modern champions in games like golf or billiards, [it would be] impossible, he would say, to acquire skill like this and at the same time to live the proper life of a man and a citizen. It was this feeling that underlies Aristotle's remark that a gentleman should be able to play the flute - but not too well...

(The Greeks) (91)

How is the individual to maintain an inner equilibrium and sense of calm while living and working within a society which neglects ethical and moral values, and increasingly the “every man for himself” attitude prevails? The Stoics gave some thought to this problem; like Plato, they saw people generally as being the prisoners of ignorance:

...Begin each day by telling yourself: Today I shall be meeting with interference, ingratitude, insolence, disloyalty, ill-will, and selfishness - all of them due to the offender's ignorance of what is good or evil. But for my part I have long perceived the nature of good and its nobility, the nature of evil and its meanness, and also the nature of the culprit himself, who is my brother (not in the physical sense, but as a fellow creature similarly endowed with reason and a share of the divine); and therefore none of these things can injure me, for nobody can implicate me in what is degrading. Neither can I be angry with my brother or fall foul of him; for he and I were born to work together, like a man's two hands, feet, or eyelids, or like the upper and lower rows of his teeth. To obstruct each other is against Nature's law - and what is irritation or aversion but a form of obstruction?...

(Meditations) (1)

One of the principal tenets of the perennial philosophy is to endeavour to refrain from subjective judgments. All transgressions are the result of an ignorance of Reality. In this context, the Taoists use the metaphor of “the empty boat”:

...If a man is crossing a river and an empty boat collides with his own skiff, even though he be a bad tempered man he will not become very angry. But if he sees a man in the boat, he will shout at him to keep clear. If the shout is not heard, he will shout again, and yet again, and begin cursing. And all because there is someone in the boat. Yet if the boat were empty, he would not be shouting, and not angry...

(Chuang Tzu)

Meditation, or contemplation “under the aspect of eternity,” was accepted as the most effective means of refreshing the spirit and hence working rationally (with right effort) within what can sometimes be a harsh reality:

Men seek for seclusion in the wilderness, by the seashore, or in the mountains - a dream you have cherished only too fondly yourself. But such fancies are wholly unworthy of a philosopher, since at any moment you choose you can retire within yourself. Nowhere can man find a quieter or more untroubled retreat than in his own soul; above all, he who possesses resources in himself, which he need only contemplate to secure immediate ease of mind - the ease that is but another word for a well-ordered spirit. Avail yourself often, then, of this retirement and so continually renew yourself. Make your rules of life brief, yet so as to embrace the fundamentals; recurrence to them will then suffice to remove all vexation, and send you back without fretting to the duties to which you must return.

After all, what is it that frets you? The vices of humanity? Remember the doctrine that all rational beings are created for one another; that toleration is a part of justice; and that men are not intentional evildoers. Think of the myriad enmities, suspicions, animosities, and conflicts that are now vanished with the dust and ashes of men who knew them; and fret no more.

Or is it your allotted portion of the Universe that chafes you? Recall once again the dilemma, if not a wise Providence, then a mere jumble of atoms, and consider the profusion of evidence that this world is as it were a city. Do the ills of the body afflict you? Reflect that the mind has but to detach itself and apprehend its own powers, to be no longer involved with the movements of the breath, whether they be smooth or rough. In short, recollect all you have learned and accepted regarding pain and pleasure.

Or does the bubble of reputation distract you? Keep before your eyes the swift onset of oblivion, and the abysses of eternity before us and behind; mark how hollow are the echoes of applause, how fickle and undiscerning the judgments of professed admirers, and how puny the arena of human fame. For the entire Earth is but a point, and the place of our own habitation but a minute corner in it; and how many are therein who will praise you, and what sort of men are they?

Remember then to withdraw into the little field of self. Above all, never struggle or strain; but be master of yourself, and view life as a man, as a human being, as a citizen, and as a mortal. Among the truths you will do well to contemplate most frequently are these two:

First, that things can never touch the soul, but stand inert outside it, so that disquiet can arise only from fancies within.

Secondly, that all visible things change in a moment, and will be no more. Think of the countless changes in which you yourself have had a part. The whole Universe is change, and life is but what you deem it...

(Meditations) (1)

Whether or not the premise of the perennial philosophy is accepted, outcomes such as this are arguably highly beneficial in their own right. *This is the acid test for any philosophy.*

ON THE TRANSIENCE OF PHILOSOPHICAL DICHOTOMIES:

We currently have a tension between the principles of, on the one hand, the “free market” and the other, government intervention. The former seemed until recently to have won, but after the financial meltdown of 2008, the latter has had to be called upon. The cases for each can be stated by Ralph Waldo Emerson and Thomas Carlyle, who were ironically great friends:

“...Wealth brings with it its own checks and balances. The basis of political economy is non-interference. The only safe rule is found in the self-adjusting meter of demand and supply. Do not legislate. Meddle, and you snap the sinews with your sumptuary laws. Give no bounties: make equal laws: secure life and property, and you need give no alms. Open the doors of opportunity to talent and virtue, and they will do themselves justice, and property will not be in bad hands. In a free and just commonwealth, property rushes from the idle and imbecile, to the industrious, brave and persevering...”

“...The laws of nature play through trade... The level of the sea is not more surely kept, than is the equilibrium of value in society, by demand and supply; and artifice and legislation punishes itself by reactions, gluts and bankruptcies...”

(Emerson – **Wealth**)

On the other hand, Carlyle sees things from a different perspective:

“...One thing I do know: Never, on this Earth, was the relation of man to man long carried on by Cash-payment alone. If, at any time, a philosophy of Laissez-faire, Competition and Supply-and-demand, start up as the exponent of human relations, expect that it will soon fail...”

(Carlyle – **Past and Present**)

So which then is right? Arguably both contain *half* the truth. Each prescription is too simplistic to stand alone. There must always be a dynamic tension between liberal and conservative philosophies, between "top-down" and "bottom-up" organisation.

At the “cutting edge” of industry, a movement has been under way for some time for many new enterprises to encourage employees to acquire shares in order to work towards their long-term loyalty. Competitive forces are such that in the medium term the majority of enterprises may find this to be beneficial. At the same time in socialist systems, individual enterprise is now being actively encouraged. The benefits of these trends are obvious and are in accord with systems theory, in which, as Fritjof Capra writes:

“...[natural] systems are organised in such a way that they form multi-level structures, each level consisting of subsystems which are wholes in regard to their parts, and parts with respect to the larger wholes....each holon has two opposite tendencies: an integrative tendency to function as part of a larger whole, and a self-assertive tendency to preserve its individual autonomy... In a healthy system... there is a balance between integration and self-assertion. This balance is not static but consists of a dynamic interplay between the two complementary tendencies, which makes the whole system flexible and open to change...”

The socialist ethic emphasises the integrative concept and the conservative, the virtues of self-reliance. The truth is that it is essential to have a creative, dynamic, “syzygial” opposition between these two ideals. When one dominates, the monsters of totalitarianism, indolence and greed rear their heads.

Capra advocates a wider framework using systems theory in general economics, embracing the environment as well as the community. This applies to all contemporary economic models:

...The systems approach to economics will make it possible to bring some order into present conceptual chaos by giving economists the urgently needed ecological perspective. According to the systems view, the economy is a living system composed of human beings and social organisations in continual interaction with one another and with the surrounding ecosystems on which our lives depend. Like individual organisms, ecosystems are self-organising and self-regulating systems in which animals,

plants, microorganisms, and inanimate substances are linked through a complex web of interdependencies involving the exchange of matter and energy in continual cycles. Linear cause-and-effect relationships exist only very rarely in these ecosystems, nor are linear models very useful to describe the functional interdependencies of the embedded social and economic systems and their technologies. The recognition of the nonlinear nature of all systems dynamics is the very essence of ecological awareness, the essence of “systemic wisdom” as Bateson called it...

(The Turning Point) (9)

In another context, the generation of a creative dialectic between all of the world's ideologies is not only feasible, but essential. It is worthwhile to recall the enmity that existed between the great politico-religious systems of Europe around three centuries ago. Each of them was effectively a totalitarian system that often had the avowed aim of overthrowing opposing ideologies. Each believed that it alone was the possessor of absolute Truth. With the subsequent passing of time, we can see that the religious dogmas that those societies so fanatically defended have now largely disappeared from the consciousness of most people; they are no longer relevant. Are today's political and religious problems so different from those of the past? In Oates' words, as with all dichotomies, they will be transcended. It is urgent that Mankind learn to look beyond the pettiness of the short term, to consider itself and our planet in terms of the next thousand years, and beyond that, in terms of geological time. As a consequence, “...Spinoza would have us live not in the minute, the day, the year or the epoch but in eternity...”

ON THE NECESSITY OF ACTION:

As the philosopher F.H.Bradley points out, the Absolute (The One) cannot strive, only when manifest in each of us (The Many) is action possible. If so, it follows that the greatest good lies in self-transcending conduct. Inherent in the ultimate development of the perennial philosophy is the *mysticism of action*, benevolent striving for excellence or the betterment of all. This is to act in accordance with the Will of the Absolute.

The following extracts illustrate this from several followers of the tradition:

...If life is to be lived in the right and most effective way, and men are to realise their true potentialities, the nature of human action must be understood. In the light of the ungraspable immensities of space and time, revealed by astronomers, in the light of the vastness of the history of life on this planet, human action is, of itself, as nothing, ephemeral, insignificant, and meaningless. It only takes on significance and meaning when it is seen in relation to something higher than itself, when it is performed not for itself alone but in the light of something beyond it. To act as if action were all-important in itself is to be imprisoned in one's own activity, to be shut up in a closed Universe... “Devote yourself, therefore...to reaching union with God. To unite the heart with God and then to act, that is the secret of unattached work”...

(Mysticism) (49)

...Prayer is the contemplation of the facts of life from the highest point of view. It is the soliloquy of a beholding and a jubilant soul. It is the spirit of God pronouncing his works good. But prayer as a means to effect a private end is meanness and theft. It supposes dualism and not unity in nature and consciousness. As soon as the man is at one with God, he will not beg. He will then see prayer in all action. The prayer of the farmer kneeling in his field to weed it, the prayer of the rower kneeling with the stroke of his oar, are true prayers heard throughout Nature... Caratach, in Fletcher's “Bonduca,” when admonished to inquire the mind of the god Audate, replies-
His hidden meaning lies in our endeavours;
Our valours are our best gods...

...Welcome evermore to gods and men is the self-helping man...

(Emerson; Self Reliance) (60)

At day's first light have in readiness, against disinclination to leave your bed, the thought that “I am

rising for the work of Man”. Must I grumble at setting out to do that which I was born for, and for the sake of which I have been brought into the world? Is this the purpose of my creation, to lie here under the blankets and keep myself warm?

“Ah, but it is a great deal more pleasant!”

Was it for pleasure, then, that you were born, and not for work, not for effort? Look at the plants, the sparrows, ants, spiders, bees, all busy at their own tasks, each doing his part towards a coherent world-order; and will you refuse man's share of the work, instead of being prompt to carry out Nature's bidding?

“Yes, but one must have some repose as well.”

Granted; but repose has its limits set by Nature, in the same way as food and drink have; and you overstep these limits, you go beyond the point of sufficiency; while on the other hand, when action is in question, you stop short of what you could well achieve.

You have no real love of yourself; if you had, you would love your nature, and your nature's will. Craftsmen who love their trade will spend themselves to the utmost in labouring at it, even going unwashed and unfed; but you hold your nature in less regard than the engraver does his engraving, the dancer his dancing, the miser his heap of silver, or the vainglorious man his moment of glory. These men, when their heart is in it, are ready to sacrifice food and sleep to the advancement of their chosen pursuit. Is the service of the community of less worth in your eyes, and does it merit less devotion?

(Meditations) (1)

...You have been told also that life is darkness,
and in your weariness you echo what was said by the weary.
And I say that life is indeed darkness save when there is urge,
And all urge is blind save when there is knowledge.
And all knowledge is vain save when there is work,
And all work is empty save when there is love;
And when you work with love you bind yourself
to yourself, and to one another, and to God...

(Khalil Gibran) (13)

...The Greeks called it **enthousiasmos**, the root of “enthusiasm,” which means literally “**filled with theos**,” or God, or Quality...

...The gumption-filling process occurs when one is quiet long enough to see and hear and feel the real Universe...

(Robert Pirsig) (71)

...The grandeur of human actions is measured by the inspiration from which they spring. Happy is he who bears a god within - an ideal of beauty and who obeys it, an idea of art, of science. All are lighted by reflection from the infinite...

(Louis Pasteur) (14)

...And Life confided this secret to me: “Behold,” it said, “I am that which must always overcome itself. Indeed, you call it a will to procreate or a drive to an end, to something higher, farther, more manifold: but all this is one...”

(Friedrich Nietzsche) (66)

ON THE INTERRELATIONSHIP OF THE MAJOR FORMS OF THE PERENNIAL PHILOSOPHY:

One of the principal themes of this book is that the great religions and philosophies of the world have

profoundly more in common than is generally realised (or, rather, acknowledged). Consider again the following points some of which have been touched on in the anthology:

There is evidence of links between the Essenes and the Pythagoreans, and hence the Platonists.

There is a high degree of probability that John the Baptist was an Essene, and hence that Christ was necessarily closely associated with the Essenes, if not a member of the brotherhood.

There is extensive evidence of links between the philosophies of Greece and India, hence the similarity between the philosophy of the Upanishads, and those of the Pythagoreans and those they influenced, including Heraclitus, Socrates, Plato and the Stoics.

Buddhism is a branch of Indian philosophy, and Sufism, the mystical stream of Islam, borrowed to an extent from the Buddhist and Hindu traditions, as well as from early Christianity.

Buddhism took on a strongly Taoist character when adopted by the Chinese, culminating in Ch'an (or Zen) Buddhism.

This unifying element inherent in world religions is of far greater significance than the apparent divisions. Establishment of a dialogue and eventually a creative working relationship between all of the great philosophical systems of the World is needed, and in accord with this, the Dalai Lama of Tibet issued a plea for world religious unity:

...I believe all [religions] fundamentally aim at the same noble goal, in teaching moral precepts... Therefore it would be better if disunity among the followers of different religions could come to an end. Unity among religions is not an impossible idea. It is possible; and in the present state of the world, it is especially important...

(My Land and My People) (58)

Or the Vietnamese Zen Buddhist monk Thich Nhat Hanh:

...Twenty years ago at a conference I attended of theologians and professors of religion, an Indian Christian friend told the assembly, "We are going to hear about the beauties of several traditions, but that does not mean that we are going to make a fruit salad." When it came my turn to speak, I said, "Fruit salad can be delicious! I have shared the Eucharist with Father Daniel Berrigan, and our worship became possible because of the sufferings we Vietnamese and Americans shared over many years." Some of the Buddhists present were shocked to hear I had participated in the Eucharist, and many Christians seemed truly horrified. To me, religious life is life. I do not see any reason to spend one's whole life tasting just one kind of fruit. We human beings can be nourished by the best values of many traditions... People kill and are killed because they cling too tightly to their own beliefs and ideologies. When we believe that ours is the only faith that contains the truth, violence and suffering will surely be the result. The second precept of the Order of Interbeing, founded within the Zen Buddhist tradition during the war in Vietnam, is about letting go of views: "Do not think the knowledge you presently possess is changeless, absolute truth. Avoid being narrow-minded and bound to present views. Learn and practice non-attachment from views in order to be open to receive others' viewpoints." To me, this is the most essential practice of peace...

(Living Buddha, Living Christ) (88)

The great task of today is to revitalise and unify the "Ur-wisdom" inherent in the teachings of people such as Buddha, Lao Tzu, Plato, Confucius, Socrates, Jesus of Nazareth, Mohammed and the writers of the Upanishads, in order to maintain relevance to the radically different problems of our modern world.

ON CHIVALRY:

It has been argued that the code of chivalry, customarily associated with medieval Christianity, actually originated within the Islamic cultural world. The historical Islamic leader most familiar to Europe is "Saladin" (in full, "Salah ad-Din Yusuf ibn Ayyub," meaning "righteousness of the faith, Joseph, son of Job"). He was of Kurdish descent, was born in Tikrit in what is now Iraq and was strongly influenced by

Sufi philosophy. Although a great soldier and general, Saladin was also renowned throughout Europe for his humanity:

“...the character of Saladin and of his work is singularly vivid. In many ways he was a typical Mohammedan, fiercely hostile to the unbelievers who had occupied Syria, though tolerant to his own Christian subjects, intensely devout and regular in prayers and fasting... His generosity and hospitality were proved in his gifts to Richard and his treatment of captives. He had the Oriental’s power of endurance, alternating with violent and emotional courage. Other virtues were all his own, his extreme gentleness, his love for children, his flawless honesty, his invariable kindness, his chivalry to women and the weak...”

Encyclopedia Britannica

It has been recorded that on hearing that Richard had taken ill, Saladin sent his own personal physician to tend to him.

“...The reputation of Saladin as a virtuous, generous, and humane leader, gallant and valorous in war, is reflected in chivalric romance and other narrative of the period. Dante assigns Saladin a place of honor in Limbo, among the heroes of Troy and Rome (Inf. IV.129).”

[According to Christian dogma, non-Christians could not hope to attain a level higher than Limbo in the hierarchy of the after-life. On the other hand, Islam has traditionally recognized virtuous people of all religions as being Muslims.]

“Boccaccio’s depiction of the Muslim king is unequivocally flattering, owing in part perhaps to a similar treatment in the anonymous Novellino. In Decameron (I.3 and X.9) he plays a central role; in the latter tale, Boccaccio describes Saladin, whose hospitality to Messer Torello was unparalleled, as a man of “courteous deeds and sterling worth...”

Brown university – Decameron Website

The crucial point to be made here is that an individual who was on the one hand such a “soldier’s soldier” could on the other hand be acclaimed as a great humanitarian by his enemies. The critical elements which combined to produce this great man were his great natural ability, his orthodox religious piety and his Sufism. The tradition of Islamic chivalry (al-furusiyya al-arabiya) had evolved in the Arabian Peninsula and pre-dated Saladin by many centuries.

In ancient Japan, chivalry was at the heart of the code of Bushido. The seven virtues of Bushido were:

- Righteousness
- Courage
- Benevolence
- Respect
- Honesty
- Honour
- Loyalty

These are hard to find fault with, but the tradition was to become totally perverted by the Militarists of pre-war Japan, with extremely tragic consequences for many millions of people.

Truly, life is the blended harmony of the yin and yang. There is an argument that chivalry within our modern perspective has been almost totally destroyed in the face of materialism and nihilism. Again from Milton:

“...The mind is its own place, and in itself can make a hell of heaven, a heaven of hell...”

ON THE NATURE OF CONSCIOUSNESS:

Consciousness is the only thing which we can be absolutely sure exists, but we know precious little about it. Philosophers beginning with Descartes and Locke have long pondered what it is and how it works. Over the past century, scientists have grappled with understanding it with little success. Just as

fish don't realise they exist in the ocean, so we currently have little or no understanding of the ocean of consciousness:

...When the Universe as a whole seeks to know itself, through the medium of the human mind, some aspects of that Universe must remain unknown. With the awakening of symbolic knowledge there seems to arise a split in the Universe between the knower and the known, the thinker and the thought, the subject and the object; and our innermost consciousness, as knower and investigator of the external world, ultimately escapes its own grasp and remains as the Unknown, Unshown, and Ungraspable, much as your hand can grasp numerous objects but not itself...

...The physicist Eddington put it succinctly, "Nature thus provides that knowledge of one-half of the world will ensure ignorance of the other half," and G. Spencer Brown, in a most spectacular passage, explains:

Let us then consider, for a moment, the world as described by the physicist. It consists of a number of fundamental particles which, if shot through their own space, appear as waves, and are thus of the same laminated structure as pearls or onions, and other wave forms called electromagnetic which it is convenient, by Occam's razor, to consider as traveling through space with a standard velocity. All these appear bound by certain natural laws which indicate the form of their relationship.

Now the physicist himself, who describes all this, is, in his own account, himself constructed of it. He is, in short, made of a conglomeration of the very particulars he describes, no more, no less, bound together by and obeying such general laws as he himself has managed to find and to record.

Thus we cannot escape the fact that the world we know is constructed in order (and thus in such a way as to be able) to see itself.

This is indeed amazing.

Not so much in view of what it sees, although this may appear fantastic enough, but in respect of the fact that it can see at all.

But in order to do so, evidently it must first cut itself up into at least one state which sees, and at least one other state which is seen. In this severed and mutilated condition, whatever it sees is only partially itself. We may take it that the world undoubtedly is itself (i.e., is indistinct from itself), but, in any attempt to see itself as an object, it must, equally undoubtedly, act so as to make itself distinct from, and therefore false to, itself. In this condition it will always partially elude itself.

So just as a knife cannot cut itself, the Universe cannot totally see itself as an object without totally mutilating itself...

(The Spectrum of Consciousness) (3)

Atheists, physicalists and other materialists are unable to explain how the mental can be generated from the physical. The mental should not exist, and if it does, it should have no purpose. As T.H.Huxley put it, it should be like the whistle on the train "... without influence upon its machinery":

"...The central doctrine of materialism is that matter is the only reality. Therefore consciousness ought not to exist. Materialism's biggest problem is that consciousness does exist. You are conscious now. The main opposing theory, dualism, accepts the reality of consciousness, but has no convincing explanation for its interaction with the body and the brain. Dualist-materialist arguments have gone on for centuries...

"...Scientific materialism arose historically as a rejection of mechanistic dualism, which defined matter as unconscious and souls as immaterial, as I discuss below. One important motive for this rejection was the elimination of souls and God. In short, materialists treated subjective experience as irrelevant; dualists accepted the reality of experience but were unable to explain how minds affect

brains. The materialist philosopher Daniel Dennett wrote a book called **Consciousness Explained** (1991) in which he tried to explain away consciousness by arguing that subjective experience is illusory. He was forced to this conclusion because he rejected dualism as a matter of principle:

*I adopt the apparently dogmatic rule that dualism is to be avoided at all costs. It is not that I think I can give a knock-down proof that dualism, in all its forms, is false or incoherent, but that, given the way that dualism wallows in mystery, **accepting dualism is giving up***

[his emphasis].

The dogmatism of Dennett's rule is not merely apparent: the rule is dogmatic. By 'giving up' and 'wallowing in mystery', I suppose he means giving up science and reason and relapsing into religion and superstition. Materialism 'at all costs' demands the denial of the reality of our own minds and personal experiences – including those of Daniel Dennett himself, although by putting forward arguments he hopes will be persuasive, he seems to make an exception for himself and for those who read his book.

Francis Crick devoted decades of his life to trying to explain consciousness mechanistically. He frankly admitted that the materialist theory was an 'astonishing hypothesis' that flew in the face of common sense: "'You", your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact no more than the behaviour of a vast assembly of nerve cells and their associated molecules.' Presumably Crick included himself in this description, although he must have felt that there was more to his argument than the automatic activity of nerve cells. One of the motives of materialists is to support an anti-religious worldview. Francis Crick was a militant atheist, as is Daniel Dennett. On the other hand, one of the traditional motives of dualists is to support the possibility of the soul's survival. If the human soul is immaterial, it may exist after bodily death...

...Scientific orthodoxy has not always been materialist. The founders of mechanistic science in the seventeenth century were dualistic Christians. They downgraded matter, making it totally inanimate and mechanical, and at the same time upgraded human minds, making them completely different from unconscious matter. By creating an unbridgeable gulf between the two, they thought they were strengthening the argument for the human soul and its immortality, as well as increasing the separation between humans and other animals.

This mechanistic dualism is often called Cartesian dualism, after Descartes. It saw the human mind as essentially immaterial and disembodied, and bodies as machines made of unconscious matter. In practice, most people take a dualist view for granted, as long as they are not called upon to defend it. Almost everyone assumes that we have some degree of free will, and are responsible for our actions. Our educational and legal systems are based on this belief. And we experience ourselves as conscious beings, with some degree of free choice. Even to discuss consciousness presupposes that we are conscious ourselves. Nevertheless, since the 1920s, most leading scientists and philosophers in the English-speaking world have been materialists, in spite of all the problems this doctrine creates. The strongest argument in favour of materialism is the failure of dualism to explain how immaterial minds work and how they interact with brains. The strongest argument in favour of dualism is the implausibility and self-contradictory nature of materialism. The dualist-materialist dialectic has lasted for centuries. The soul-body or mind-brain problem has refused to go away. But before we can move forward, we need to understand in more detail what materialists claim, since their belief-system dominates institutional science and medicine, and everyone is influenced by it.

Minds that deny their own reality

Most neuroscientists do not spend much time thinking about the logical problems that materialist beliefs entail. They just get on with the job of trying to understand how brains work, in the faith that more hard facts will eventually provide answers. They leave professional philosophers to defend the materialist or physicalist faith. Physicalism means much the same as materialism, but rather than asserting that all reality is material, it asserts that it is physical, explicable in terms of physics, and therefore including energy and fields as well as matter. In practice, this is what materialists believe

too. In the following discussion I use the more familiar word materialism to mean 'materialism or physicalism'. Among materialist philosophers there are several schools of thought. The most extreme position is called 'eliminative materialism'. The philosopher Paul Churchland, for example, claims that there is nothing more to the mind than what occurs in the brain. Those who believe in the existence of thoughts, beliefs, desires, motives and other mental states are victims of 'folk psychology', an unscientific attitude that will in due course be replaced by explanations in terms of the activities of nerves. Folk psychology is a kind of superstition, like belief in demons, and it will be left behind by the onward march of scientific understanding. Consciousness is just an 'aspect' of the activity of the brain. Thoughts or sensations are just another way of talking about activity in particular regions of the cerebral cortex; they are the same things talked about in different ways. Other materialists are 'epiphenomenalists': they accept rather than deny the existence of consciousness, but see it as a functionless by-product of the activity of the brain, an 'epiphenomenon', like a shadow. T. H. Huxley was an early advocate of this point of view, and in 1874 he famously compared consciousness to 'the steam whistle that accompanies the work of a locomotive engine... without influence upon its machinery'. He concluded, 'We are conscious automata.' People might just as well be zombies, with no subjective experience, because all their behaviour is a result of brain activity alone. Conscious experience does nothing, and makes no difference to the physical world. A recent form of materialism is 'cognitive psychology', which dominated academic psychology in the English-speaking world in the late twentieth century. It treats the brain as a computer and mental activity as information processing. Subjective experiences, like seeing green, or feeling pain, or enjoying music, are computational processes inside the brain, which are themselves unconscious. Some philosophers, like John Searle, think that minds can emerge from matter by analogy with the way that physical properties can emerge at different levels of complexity, like the wetness of water emerging from the interactions of large numbers of water molecules. In nature, there are indeed many different levels of organisation, each of which has new properties that are not present in their parts alone. Atoms have properties over and above nuclear particles and electrons. Molecules have properties over and above atoms: the molecules of water, H₂O, are fundamentally different from uncombined hydrogen and oxygen atoms. Then the wetness of liquid water is not explained by water molecules in isolation, but through their organisation together in liquid water. New physical properties 'emerge' at every level. In the same way, consciousness is an emergent physical property of brains. It is different from other physical processes, but it is physical none the less. Many non-materialists would agree with Searle that consciousness is in some sense 'emergent' but would argue that while mind and conscious agency originate in physical nature, they are qualitatively different from purely material or physical being. Finally, some materialists hope that evolution can provide an answer. They propose that consciousness emerged as a result of natural selection through mindless processes from unconscious matter. Because minds evolved, they must have been favoured by natural selection and hence they must actually do something: they must make a difference. Many non-materialists would agree. But materialists want to have it both ways: emergent consciousness must do something if it has evolved as an evolutionary adaptation favoured by natural selection; but it cannot do anything if it is just an epiphenomenon of brain activity, or another way of talking about brain mechanisms. In 2011, the psychologist Nicholas Humphrey tried to overcome this problem by suggesting that consciousness evolved because it helps humans survive and reproduce by making us feel 'special and transcendent'. But as a materialist, Humphrey does not agree that our minds have any agency; that is to say, they cannot affect our actions. Instead our consciousness is illusory: he describes it as 'a magical mystery show that we stage for ourselves inside our own heads'. But to say that consciousness is an illusion does not explain consciousness: it presupposes it. Illusion is a mode of consciousness. If all these theories sound unconvincing, that is because they are. They do not even convince other materialists, which is why there are so many rival theories. Searle has described the debate over the last fifty years as follows:

A philosopher advances a materialist theory of the mind . . . He then encounters difficulties . . . Criticisms of the materialist theory usually take a more or less technical form, but, in fact, underlying the technical objections is a much deeper objection: the theory in question has left out some essential

feature of the mind.... And this leads to ever more frenzied attempts to stick with the materialist thesis. The philosopher Galen Strawson, himself a materialist, is amazed by the willingness of so many of his fellow philosophers to deny the reality of their own experience:

I think we should feel very sober, and a little afraid, at the power of human credulity, the capacity of human minds to be gripped by theory, by faith. For this particular denial is the strangest thing that has ever happened in the whole history of human thought, not just the whole history of philosophy.

Francis Crick admitted that the ‘astonishing hypothesis’ was not proved. He conceded that a dualist view might become more plausible. But, he added:

There is always a third possibility: that the facts support a new, alternative way of looking at the mind-brain problem that is significantly different from the rather crude materialistic view that many neuroscientists hold today and also from the religious point of view. Only time, and much further scientific work, will enable us to decide.

(The Science Delusion) (134)

ON THE NEED FOR A PHILOSOPHICAL RENAISSANCE:

We have emerged from the era of Modernism where philosophy was relegated to the role of the “handmaiden” of science, to supposedly progress to Postmodernism, where it is held that all things are relative and no absolute truths can be ascertained.

It has been argued that the final aim of philosophy should be to allow us to forge the wisdom to live a good life. If this yardstick is accepted, the worth of both logical positivism and Derrida’s deconstructionism, for instance, would seem to be relatively modest – indeed, “*by their fruits shall ye know them.*”

But none of this is new. Consider what Seneca had to say in the 1st century C.E.:

“...what I should like those subtle thinkers – you know the ones I mean... - to teach me is this, what my duties are to a friend and to a man, rather than the number of senses in which the expression ‘friend’ is used and how many different meanings the word ‘man’ has. Before my very eyes wisdom and folly are taking their separate stands: which shall I join, whose side am I to follow? For one person ‘man’ is equivalent to ‘friend’, for another ‘man’ and ‘friend’ are far from being identified, and in making a friend one man will be seeking an asset while another will be making himself an asset to the other; and in the midst of all this what you people do for me is pull words about and cut up syllables. One is led to believe that unless one has constructed syllogisms of the craftiest kind, and reduced fallacies to a compact form in which a false conclusion is derived from a true premise, one will not be in a position to distinguish what one should avoid. It makes one ashamed – that men of advanced years should turn a thing as serious as this into a game.”

“ ‘Mouse is a syllable, and a mouse nibbles cheese; therefore, a syllable nibbles cheese.’ Suppose for the moment I can’t detect the fallacy in that. What danger am I placed in by such lack of insight? What serious consequences are there in it for me? What I have to fear, no doubt, is the possibility, one of these days, of my catching a syllable in a mousetrap or even of having my cheese eaten up by a book if I’m not careful. Unless perhaps the following train of logic is a more acute one: ‘Mouse is a syllable, and a syllable does not eat cheese; therefore, a mouse does not nibble cheese.’ What childish fatuities these are! Is this what we let our beards grow long for? Is this what we teach with faces grave and pale?”

“Shall I tell you what philosophy holds out for humanity? Counsel. One person is facing death, another is vexed by poverty, while another is tormented by wealth – whether his own or someone else’s; one man is appalled by his misfortunes while another longs to get away from his own prosperity... What’s the point in concocting whimsies for me of the sort I’ve just been mentioning? This isn’t the place for fun – you’re called on to help the unhappy. You’re pledged to bring succour

*to the shipwrecked, to those in captivity, to the sick, the needy and those who are about [to die]...
What are you about? The person you're engaging in word play with is in fear – go to his aid..."*

There is an argument that Modernism and Post-modernism tend to be “bottom-up” philosophies. Seneca’s Stoicism, on the other hand, includes both “bottom-up” and “top-down” perspectives. In Nietzsche’s terminology, we need to see things both *from above*, and *from within*.

ON THE END OF “RELIGION”:

It has been argued that we need to transcend the concept of a transcendent anthropomorphic deity. All minds in accord with the perennial philosophy would concur with this:

“...There is a... stage of religious experience which... is rarely found in a pure form: I shall call it cosmic religious feeling. It is very difficult to elucidate this feeling to anyone who is entirely without it, especially as there is no anthropomorphic conception of God corresponding to it.”

“The individual feels the futility of human desires and aims and the sublimity and marvelous order which reveal themselves both in Nature and in the world of thought. Individual existence impresses him as a sort of prison and he wants to experience the universe as a single significant whole. The beginnings of cosmic religious feeling already appear at an early stage of development, e.g., in many of the Psalms of David and in some of the Prophets. Buddhism, as we have learned especially from the wonderful writings of Schopenhauer, contains a much stronger element of this.”

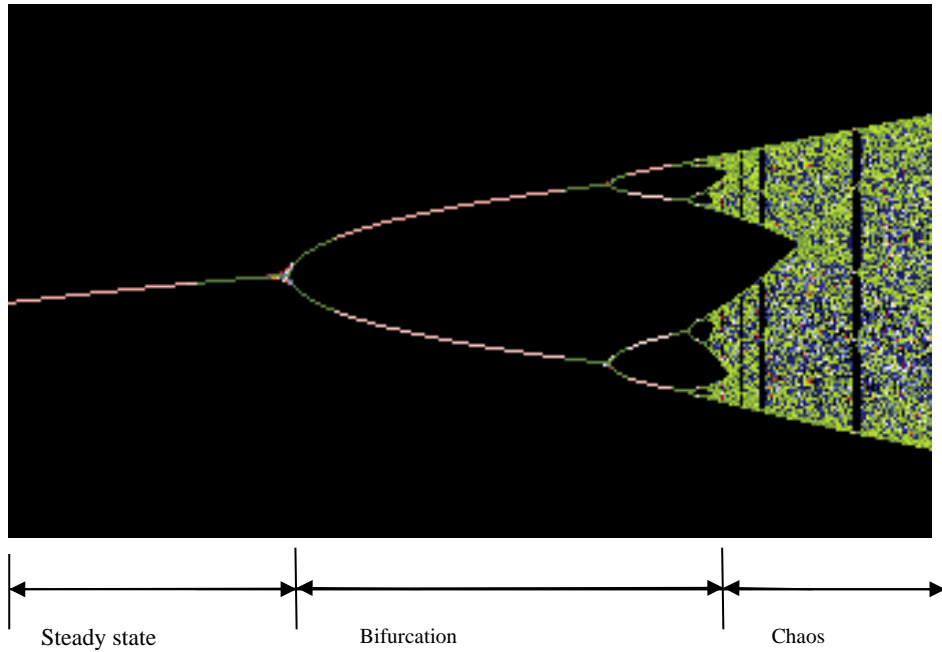
“The religious geniuses of all ages have been distinguished by this kind of religious feeling, which knows no dogma and no God conceived in man's image; so that there can be no church whose central teachings are based on it. Hence it is precisely among the heretics of every age that we find men who were filled with this highest kind of religious feeling and were in many cases regarded by their contemporaries as atheists, sometimes also as saints. Looked at in this light, men like Democritus, Francis of Assisi, and Spinoza are closely akin to one another.”

“How can cosmic religious feeling be communicated from one person to another, if it can give rise to no definite notion of a God and no theology? In my view, it is the most important function of art and science to awaken this feeling and keep it alive in those who are receptive to it...”

Albert Einstein - Religion and Science (118)

There is an argument that the “orthodox” Judaeo-Christian tradition is in terminal decline, and as a result, a profound ethical void is becoming apparent in modern society. It was in *this* context that Nietzsche used his famous “God is dead” statement. It’s significant that Nietzsche put the statement into mouth of a madman, and that the madman was addressing a mob of mocking atheists. With regard to this, some fools became aware of the simplistic ‘god is dead’ pronouncement and consequently leapt prematurely to exactly the wrong conclusion. This is perhaps one of the starkest instances of the misreading of Nietzsche’s philosophy.

On the other hand, even within the overall context of a decline in organised religion, aspects of the *Ur* or archetypal religion from which the principal religions have emerged are extraordinarily enduring. One is reminded of the bifurcation process central to Chaos theory. In the diagram below, the branches of the process, marked “bifurcation,” would represent the generation of a large number of religions. Under this model, we may be coming to a region of “chaos,” which would conceivably represent a more individual, rather than group-based spirituality.



Within this concept, the fundamental necessity would be for each individual to make his or her own pilgrimage in search of Truth within the broad scope of the perennial philosophy. It is appropriate here to recall the Buddhist ideal, (unfortunately not often enough adhered to):

...Buddhism acknowledges no authority for Truth except the intuition of the individual, and that is authority for himself alone...

Soren Kierkegaard puts it slightly differently, but the result is the same:

...There is a view of life which holds that where the crowd is, the truth is also, that it is a need in truth itself, that it must have the crowd on its side. There is another view of life; which holds that wherever the crowd is, there is untruth, so that, for a moment to carry the matter to its farthest conclusion, even if every individual possessed the truth in private, yet if they came together into a crowd (so that "the crowd" received any decisive, voting, noisy audible importance), untruth would be at once be let in...

Perhaps Mankind's greatest problem is that we are still strongly subjected to the herd instinct, and all herds lack morality and reason. Mankind's history is strewn with examples where the readiness to abandon our powers of reason and submit to a group mentality has led to catastrophe. The deviance of nation states such as Stalinist Russia, Nazi Germany, communist China, imperial Japan and indeed our own over the last centuries is an incredible phenomenon. Nietzsche made the point that within individuals, insanity is relatively rare, but among groups, communities and nations it is the norm. If in the future we are to develop a culture that is mature enough to deal with the challenges we face, *there can be no place for organised 'absolute' ideology, including that of nationalism.*

It seems that there exists no 'Grand Ultimate Formula' for Reality. Recalling Goethe's open-minded understanding, it may well be that Reality can be approached on a number of complementary and equally valid levels:

- 1 In the ultimate, a view that sees the Absolute as the Ground of all Being. The Absolute is an entity without attributes and is beyond good and evil. This is Monism
- 2 A view that sees Reality as the conflict of opposites, whether it be heat and cold, light and dark, or good and evil. This is Dualism
- 3 At another level, the recognition of the reality of Nous, (or universal Mind, or God) which emanates from the Absolute. This is a form of Deism or Theism

- 4 At the next level, the recognition that the concept of the Absolute cannot hope to be grasped by the human intellect, and hence a case can be made for trying to see facets of It expressed through *archetypes*, or ‘gods.’ And yet it must be acknowledged that these are only archetypes, each expressing an aspect of the ultimate Whole. This is the essence of Polytheism
- 5 At the next, the recognition that there is nothing “out there” to worship. This view is inherent to the Atheism of people such as Shelley: “...*There is no God... [but] the hypothesis of a pervading Spirit coeternal with the Universe remains unshaken...*”

Also in harmony with the comprehensive outlook of Goethe, the Chinese have long acknowledged that:
...There are as many kinds of Chinese philosophy as there are clouds in the sky, but Heaven embraces them all...

(A Short History of Chinese Philosophy)

And the Islamic philosopher and mathematician Omar Khayyam writes, in his characteristically ironical manner:

*...Some ponder long on doctrine and belief,
Some teeter between certitude and doubt.
Suddenly out of hiding leaps the Guide
With: “Fools, the Way is neither that nor this”...*

(The Rubaiyyat)

The French philosopher Michel de Montaigne journeyed within Europe in the sixteenth century, and found that different communities had their own distinct cultures and customs. They were diverse, but he noted that one culture was not necessarily superior to the others. He reported on the voyage of an explorer who studied the culture of a people who ritually ate the flesh of their enemies. He makes the point that ways of life diametrically opposed to our own may have merit, and that Europe of that time was certainly not able to claim the ascendancy in terms of morals. The Polynesians were termed “savages” by the Europeans, but their simplicity of life and other superb virtues including bravery, seamanship and navigation skills, made their way of life at least as worthy as that of the “civilised” Europeans, who were inclined to burn their non-conformists at the stake. Similarly the “antipodes” of many ways of life exists today between for instance the Western cultures and those of Islam, the religious and the atheistic, the masculine and the feminine, the technologists and the artists.

On the other hand, not **all** is relative. We can be **quite certain** that in order to survive, the next level in the development of all cultures must be to return to include a more holistic understanding. Using Nietzsche's imagery, the polluted stream must arrive at the Sea. The knowledge of Unity entails a degree of transcendence of the level of duality, of good and evil, while at the same time, the realisation of greatly expanded spiritual and intellectual dimensions.

Central to the perennial philosophy is the concept that the Absolute is beyond attributes and does not have an individual persona analogous to that of human beings. In fact, It transcends time and space, or to put it another way, time and space exist only within the Absolute. Any attribute we may try to apply to it must be totally ineffective. Hence, in this sense the Absolute does not exist, but *super-exists* only in an eternal and never-changing “Now.” All religious paradigms for our times need to apply a synthesis of science, philosophy and theology to explore the dimensions of the Good, the True and the Beautiful and their relationship to the Absolute.

In order to begin to know anything of the Absolute, the only given we have is Nature. Nature is supremely beautiful and awe-inspiring. To the Dualist - that is one who sees himself and Nature as separate entities - it would seem that it is also totally unfeeling and cruel. The Monist sees things differently: Emerson, Spinoza and Plotinus expressed the belief that the highest level of human consciousness was that of realising one's unity with the Absolute. As Sprigge has said, this was expressed in the belief that the Whole of which we are part is to be cherished and revered, and evils that may come our way must as far as possible be quietly endured when they cannot be removed, recognising that the overall scheme is one of vast grandeur and beauty:

“...Prayer is the contemplation of the facts of life from the highest point of view. It is the soliloquy of

a beholding and a jubilant soul. It is the spirit of God pronouncing his works good...

(Emerson)

Is the Absolute then worthy of worship? The tradition within the perennial philosophy would be that if we come to see the Ground of Being as something totally apart from ourselves, then we are seriously in error. If, however, we adopt Carlyle's definition of worship as being that of transcendent wonder, the relationship of the finite aspect, "I," to the infinite Whole, we are arguably fully justified.

It is crucial that religion again becomes a living, changing and dynamic arena of human activity and experience. The new must absorb from the old the best characteristics of its essential philosophies. There need be no traumatic transition. In the case of Christianity, a natural progression from the rigid and paternalistic 'Athanasianism,' returning to the original concept of the founder seems to be quietly under way. For example, Pierre Teilhard de Chardin saw himself as a Christian, but strove for change in the direction of the perennial philosophy. The number of those within the Christian community influenced by people such as Teilhard de Chardin and Bede Griffiths is considerable and growing:

...The powerful light that has been banished returns. There is movement, but it is not brought about by force... The movement is natural, arising spontaneously... The old is discarded and the new is introduced...

(*The I Ching*)

Any spiritual-philosophical forms that emerge must avoid following the path where dogma and blind faith were the cause, in the words of C.G. Jung, of a hardening into an outer formula; as St. Augustine put it, dogma became the fence we built around the Mystery. There must never again be a hierarchy that claims a divine right to represent "The One." An educated and enlightened population will not let this recur.

Emerson consistently stressed in his own way the need for the development of Self-knowledge - knowledge of the Absolute. This was the basis of his religious vision:

...And so I think that the last lesson of life, the choral song which rises from all elements and all angels is a voluntary obedience, a necessitated freedom. Man is made of the same atoms as the World is, he shares the same impressions, predispositions, and destiny. When his mind is illuminated, his heart is kind, he throws himself joyfully into the Sublime Order, and does, with knowledge, what the stones do by structure.

The religion which is to guide the present and coming ages, whatever else it may be, must be intellectual. The scientific mind must have a faith which is science. "There are two things," said Mahomet, "which I abhor: the learned in his infidelities, and the fool in his devotions." Our times are impatient of both, and especially of the last. Let us have nothing which is not its own evidence. There is surely enough for the heart and the imagination in the religion itself. Let us not be pestered with assertions and half-truths, with emotions and snuffle.

There will be a new Church founded on moral science, at first cold and naked, a babe in the manger again, the algebra and mathematics of ethical law, the Church of men to come... it will have Heaven and Earth for its beams and rafters; science for symbol and illustration; it will fast enough gather beauty, music, picture, poetry. Was never Stoicism so stern and exigent as this shall be. It shall send man home to his central solitude, shame these social, supplicating manners, and make him know that much of the time he must have himself for his friend. He shall expect no cooperation; he shall walk with no companion. The nameless Thought, the nameless Power, the super-personal Heart, - he shall repose alone on that. He needs only his own verdict. No good fame can help, no bad fame can hurt him. The Laws are his consolers, the good Laws are alive, they know if we have kept them, they animate him with the leading of a great duty, and an endless horizon...

(*Worship*) (92)

Another giant of the perennial philosophy expressed the belief that we must pragmatically create "a minimum working hypothesis" to begin to break free from this prison of the Cave. From this standpoint, then, we can begin to draw meaning from the observed facts of our existence:

...For those of us who are not congenitally the members of an organised church, who have found that

humanism and Nature-worship are not enough, who are not content to remain in the darkness of ignorance, the squalor of vice or the other squalor of respectability, the minimum working hypothesis would seem to run to about this:

That there is a Godhead, Ground, Brahman, Clear Light of the Void, which is the unmanifested principle of all manifestations.

That the Ground is at once transcendent and immanent.

That it is possible for human beings to love, know and, from virtually, to become actually identical with the divine Ground.

That to achieve this unitive knowledge is the final end and purpose of human existence.

That there is a Law or Dharma which must be obeyed, a Tao or Way which must be followed, if men are to achieve their final end.

That the more there is of self, the less there is of the [Self]; and that the Tao is therefore the way of humility and love, the Dharma a living law of mortification and self-transcending awareness. This, of course, accounts for the facts of history. People like their egos and do not wish to mortify them, get a bigger kick out of bullying and self-adulation than of humility and compassion, are determined not to see why they shouldn't "do what they like" and "have a good time". They get their good time; but also and inevitably they get wars and syphilis, tyranny and alcoholism, revolution, and in default of an adequate religious hypothesis the choice between some lunatic idolatry, such as nationalism, and a sense of complete futility and despair...

*(Aldous Huxley - **The Minimum Working Hypothesis**) (15)*

It's arguable that the building of a belief system grounded in the concept of our integral relationship within Nature and our interdependence on each other is fundamental to our well-being as individuals, as well as that of our fragile and precious and unique little planet. As Plato put it, we must come to perceive things from the viewpoint of the Absolute in order to begin to act rationally. But this amounts to the same thing. If this is dogma, then so be it; it is a dogma of reason and emotion. It is the principle for survival of our species, and just as importantly, other species. But if there is anything that is confirmed in the foregoing Anthology, it is that there is ample scope within the perennial philosophy for widely varying belief systems and ideas. The Philosophy readily embraces everything from Marxian thought to that of the most "enlightened self-interest" capitalism, from Nietzsche to Buddha, from Christian to Vedanta, from Platonic to contemporary science. The Philosophy gives no absolute answers to our ethical and existential problems; it does, however, supply a superb framework within which to consider such questions.

The organisation and formalisation of spirituality should be seen as inappropriate for a mature culture. In this respect, the psychologist Richard Bucke argued that a new level of consciousness, but an *individual* consciousness, is required for humanity. This is in harmony with one of the principal theses of this work:

...In contact with the flux of cosmic consciousness all religions known...today will be melted down. The human soul will be revolutionised. Religion will absolutely dominate [humanity]. It will not depend on tradition. It will not be believed and disbelieved. It will not be a part of life, belonging to certain hours, times, occasions. It will not be in sacred books nor in the mouths of priests. It will not dwell in churches and meetings and forms and days. Its life will not be in prayers, hymns nor discourses. It will not depend on special revelations, on the words of gods who came down to teach, nor on any bible or bibles. It will have no mission to save men from their sins or to secure them entrance to Heaven. It will not teach a future immortality nor future glories, for immortality and all glory will exist in the here and now. The evidence of immortality will live in every heart as sight in every eye... Each soul will feel and know itself to be immortal, will feel and know that the entire Universe with all its good and all its beauty is for it and belongs to it forever. The world peopled by men possessing cosmic consciousness will be as far removed from the world of today as this is from the world as it was before the advent of self-consciousness...

(Cosmic Consciousness) (77)

ON THE INSUFFICIENCY OF MATERIALISM:

Are we robots (or zombies) as the Materialists would have it, or is there a much deeper dimension to Reality? :

In the lecture hall of the London Pathological Society, a brilliant young surgeon, Frederick Treves... shows an incredulous group of doctors a truly astonishing and horrible sight – a man so hideously deformed that he is condemned to live in a circus sideshow, where Treves has found him. His name is John Merrick and he is known to circus audiences up and down Victorian England as The Elephant Man...

...Merrick appears to be an imbecile, unable to think or talk for himself, but with tremendous patience, Treves does manage to get him to repeat certain phrases... What is in The Elephant Man's mind? Is he an imbecile, beyond all help, or is there an intelligent man trapped in the body of a monster?...

...As they are talking outside Merrick's room, they hear him beginning to recite the 23rd Psalm, having been taught the first few lines by Treves. But, astonishingly, The Elephant Man goes on to complete it, to the amazement of the two medical men...

<http://www.thecityofabsurdity.com/elephantman/emsynopsis.html>

The LORD is my shepherd; I shall not want.

He maketh me to lie down in green pastures: he leadeth me beside the still waters.

He restoreth my soul: He leadeth me in the paths of righteousness for his name's sake.

Yea, though I walk through the valley of the shadow of Death, I shall fear no evil: for thou art with me; thy rod and thy staff they comfort me.

Thou preparest a table before me in the presence of mine enemies: thou anointest my head with oil; my cup runneth over.

Surely goodness and mercy shall follow me all the days of my life: and I will dwell in the house of the LORD for ever.

John Merrick had learned that passage off “by heart” as a child. He had cherished it as “balm for the soul.”

Similarly the psychotherapist Victor Frankl found strength in spirituality, enduring several years of being interned in Auschwitz concentration camp. During this time he developed his philosophy of “logotherapy.” Logotherapy means literally “therapy through meaning”:

...The notion of Logotherapy was created with the Greek word logos (“meaning”). Frankl's concept is based on the premise that the primary motivational force of an individual is to find a meaning in life.

The following list of tenets represents basic principles of logotherapy:

- *Life has meaning under all circumstances, even the most miserable ones.*
- *Our main motivation for living is our will to find meaning in life.*
- *We have freedom to find meaning in what we do, and what we experience, or at least in the stand we take when faced with a situation of unchangeable suffering.*

Logotherapy in a Nutshell

In his book ***Man's Search for Meaning***, he discusses the importance of creating meaning to dealing with otherwise insuperable circumstances:

...Then I spoke of the many opportunities of giving life a meaning. I told my comrades (who lay motionless, although occasionally a sigh could be heard) that human life, under any circumstances, never ceases to have a meaning, and that this infinite meaning of life includes suffering and dying, privation and death. I asked the poor creatures who listened to me attentively in the darkness of the hut to face up to the seriousness of our position. They must not lose hope but should keep their courage in the certainty that the hopelessness of our struggle did not detract from its dignity and its

meaning. I said that someone looks down on each of us in difficult hours — a friend, a wife, somebody alive or dead, or a God — and he would not expect us to disappoint him. He would hope to find us suffering proudly — not miserably — knowing how to die. And finally I spoke of our sacrifice, which had meaning in every case.

It was in the nature of this sacrifice that it should appear to be pointless in the normal world, the world of material success. But in reality our sacrifice did have a meaning. Those of us who had any religious faith, I said frankly, could understand without difficulty. I told them of a comrade who on his arrival in camp had tried to make a pact with Heaven that his suffering and death should save the human being he loved from a painful end. For this man, suffering and death were meaningful; his was a sacrifice of the deepest significance. He did not want to die for nothing. None of us wanted that. The purpose of my words was to find a full meaning in our life, then and there, in that hut and in that practically hopeless situation. I saw that my efforts had been successful. When the electric bulb flared up again, I saw the miserable figures of my friends limping toward me to thank me with tears in their eyes. But I have to confess here that only too rarely had I the inner strength to make contact with my companions in suffering and that I must have missed many opportunities for doing so...

Man's Search for Meaning

The materialist Richard Dawkins goes out of his way to disabuse these people of their grave errors. They exist, in his words, as “*machines*” and “*lumbering robots*,” effectively manipulated by their genes:

“...Was there to be any end to the gradual improvement in the techniques and artifices used by the replicators to ensure their own continuation in the world? There would be plenty of time for improvement. What weird engines of self-preservation would the millennia bring forth? Four thousand million years on, what was to be the fate of the ancient replicators?”

“They did not die out, for they are past masters of the survival arts. But do not look for them floating loose in the sea; they gave up that cavalier freedom long ago. Now they swarm in huge colonies, safe inside gigantic lumbering robots, sealed off from the outside world, communicating with it by tortuous indirect routes, manipulating it by remote control.

They are in you and in me; they created us, body and mind; and their preservation is the ultimate rationale for our existence. They have come a long way, those replicators. Now they go by the name of genes, and we are their survival machines...”

The Selfish Gene

(As a brief aside, it’s surprising to find that Dawkins concedes that we have minds. The materialist dogma is that we have brains, but not minds. The mental – material interface is put in the “too hard” basket. Hence, as discussed, consciousness must be pure illusion - the whistle emitted by the steam engine “...without influence upon its machinery...”)

Even within the reductionist paradigm the selfish gene theory is under dispute, not so much that it is untrue, but that it is at best partially true. Evolution is arguably at least equally driven by our microbiomes, the vast ecosystems of microbes within which “we” live and move and have our being. For instance viruses are now known to have introduced the genetic change necessary for the evolution of placental mammals:

“...This is something not to fear but to celebrate,” Heidmann told Specter one day as they sat in his office at the institute, which is dedicated to the treatment and eradication of cancer. “What is remarkable here, and unique, is the fact that endogenous retroviruses are two things at once: genes and viruses. And those viruses helped make us who we are today just as surely as other genes did. I am not certain that we would have survived as a species without them. The Phoenix virus sheds light on how HIV operates, but, more than that, on how we operate, and how we evolved. Many people study other aspects of human evolution—how we came to walk, or the meaning of domesticated

animals. But I would argue that equally important is the role of pathogens in shaping the way we are today. Look, for instance, at the process of pregnancy and birth.”

Heidmann believes that without endogenous retroviruses mammals might never have developed a placenta, which protects the fetus and gives it time to mature, which eventually led to live birth, one of the hallmarks of human evolutionary success over birds, reptiles, and fish. Eggs cannot eliminate waste or draw the maternal nutrients required to develop the large brains that have made mammals so versatile. “These viruses made those changes possible. It is quite possible that, without them, human beings would still be laying eggs.”

http://www.dailygalaxy.com/my_weblog/2009/03/did-ancient-vir.html

...Viruses and bacteria have sped up the process of evolution by rapidly transferring DNA from one species to another, a new study suggests. Gene-mapping projects over the past decade have already shown that genes can move between species via tiny microorganisms. Now a team of scientists at Texas' Rice University believes that microbes are accelerating evolution by constantly transporting whole chunks of DNA that may represent new and beneficial functions—like resistance to disease. This process—called horizontal gene transfer (HGT)—may allow life-forms to evolve more quickly than they would by occasional, random mutations alone, the scientists say.

"We know that the majority of the DNA in the genomes of some animal and plant species—including humans, mice, wheat and corn—came from HGT insertions," said Michael Deem, a genetic engineer at Rice, in a press statement. "For example, we can trace the development of the adaptive immune system in humans and other jointed vertebrates to an HGT insertion about 400 million years ago."

"Once [viruses and bacteria] find a useful protein or gene, it can be transmitted to more complex species by [this process]," Deem told National Geographic News.

"I think this is the main mechanism by which [a] dramatically new function evolves..."

<http://news.nationalgeographic.com.au/news/2007/03/070305-evolution-germs.html>

...Some bacteria were recently shown to use HGT to outsource their work to viruses! Certain cyanobacterial species are continuously in deficit of photosynthetic protein D1 due to light induced damage. During evolution, a copy of the bacterial gene for this protein was transferred to the genome of S-PM 2, a virus which infects them. The virus could thus produce a photosynthesis protein, which although of no direct use, enhances the chances of survival of its host and hence itself, demonstrating the utilization of horizontal gene transfer during symbiosis...

<http://link.springer.com/article/10.1007/s12045-007-0006-5#page-1>

...The viruses, instead of being single-minded agents of disease and death, now begin to look more like mobile genes. Evolution is still an infinitely long and tedious biologic game, with only the winners staying at the table, but the rules are beginning to look more flexible. We live in a dancing matrix of viruses; they dart, rather like bees, from organism to organism, from plant to insect to mammal to me and back again, and into the sea, tugging along pieces of this genome, strings of genes from that, transplanting grafts of DNA, passing around heredity as though at a great party. They may be a mechanism for keeping new, mutant kinds of DNA in the widest circulation among us. If this is true, the odd virus disease, on which we must focus so much of our attention in medicine, may be looked on as an accident, something dropped...

...There is ambiguity, and some symbolism, in the elaborate ritual observed by each returning expedition of astronauts from the moon. They celebrate first of all the inviolability of the earth, and they re-enact, each time, in stereotyped choreography, our long anxiety about the nature of life. They do not, as one might expect, fall to their knees and kiss the carrier deck; this would violate, intrude

upon, contaminate the deck, the vessel, the sea around, the whole earth. Instead, they wear surgical masks.

They walk briskly, arms up, un-touching, into a sterile box. They wave enigmatically, gnotobiotically, to the President from behind glass panes, so as not to breathe moon dust on him. They are levitated to another sealed box in Houston, to wait out their days in quarantine, while inoculated animals and tissue cultures are squinted at for omens. It is only after the long antiseptic ceremony has been completed that they are allowed out into the sun, for the ride up Broadway.

A visitor from another planet, or another century, would view the exercise as precisely lunatic behavior, but no one from outside would understand it. We must do things this way, these days. If there should be life on the moon, we must begin by fearing it. We must guard against it, lest we catch something. It might be a microbe, a strand of lost nucleic acid, a molecule of enzyme, or a nameless hairless little being with sharp gray eyes. Whatever, once we have imagined it, foreign and therefore hostile, it is not to be petted. It must be locked up. I imagine the debate would turn on how best to kill it. It is remarkable that we have all accepted this, without hooting, as though it simply conformed to a law of nature. It says something about our century, our attitude toward life, our obsession with disease and death, our human chauvinism.

There are pieces of evidence that we have had it the wrong way round. Most of the associations between the living things we know about are essentially cooperative ones, symbiotic in one degree or another; when they have the look of adversaries, it is usually a standoff relation, with one party issuing signals, warnings, Bagging the other off. It takes long intimacy, long and familiar interliving, before one kind of creature can cause illness in another. If there were to be life on the moon; it would have a lonely time waiting for acceptance to membership here. We do not have solitary beings. Every creature is, in some sense, connected to and dependent on the rest. It has been estimated that we probably have real knowledge of only a small proportion of the microbes of the earth, because most of them cannot be cultivated alone. They live together in dense, interdependent communities, feeding and supporting the environment for each other, regulating the balance of populations between different species by a complex system of chemical signals. With our present technology, we can no more isolate one from the rest, and rear it alone, than we can keep a single bee from drying up like a desquamated cell when removed from his hive...

The Lives of a Cell (69)

Check out further at <https://www.youtube.com/watch?v=WIZMIC5PV0c>
and <https://www.youtube.com/watch?v=5DTrENdWvvM>

But if the aim of the selfish genes was just to survive, surely they didn't need multicellular organisms. Bacteria will be just fine; in fact, far better:

...We are told that the trouble with Modern Man is that he has been trying to detach himself from Nature. He sits in the topmost tiers of polymer, glass, and steel, dangling his pulsing legs, surveying at a distance the writhing life of the planet. In this scenario, Man comes on as a stupendous lethal force, and the Earth is pictured as something delicate, like rising bubbles at the surface of a country pond, or flights of fragile birds.

But it is illusion to think that there is anything fragile about the life of the Earth; surely this is the toughest membrane imaginable in the Universe, opaque to probability, impermeable to death. We are the delicate part, transient and vulnerable as cilia. Nor is it a new thing for Man to invent an existence that he imagines to be above the rest of life; this has been his most consistent intellectual exertion down the millennia. As illusion, it has never worked out to his satisfaction in the past, any more than it does today. Man is embedded in Nature...

The Lives of a Cell

There is a cogent argument that if Mankind keeps destroying the natural world in the way it has, it will become, in Lewis Thomas' words, just as "desquamated" as a bee without its hive. We are members of a vast "Hive," or Superorganism.

In the introduction to the 30th anniversary edition of the publication of *The Selfish Gene*, Dawkins expresses a slight regret at his use of the term "selfish":

...I can readily see how the title could be misunderstood, and this is one reason why I should have gone for "The Immortal Gene." "The Altruistic Vehicle" would have been another possibility...

In another place he protests the injustice of people citing his "lumbering robot" metaphor:

...From being synonymous in the popular mind with a moronically undeviating, jerky-limbed zombie, 'robot' will one day become a byword for flexibility and rapid intelligence.

Unfortunately I jumped the gun a little in the passage quoted. When I wrote it I had just returned from an eye-opening and mind-boggling conference on the state of the art of artificial intelligence programming, and I genuinely and innocently in my enthusiasm forgot that robots are supposed to be inflexible idiots...

*...[But] what is a brain... but a computer, and what is education but a form of programming? It is very hard to give a non-supernatural account of the human brain and human emotions, feelings and apparent free will, **without** regarding the brain as, in some sense, the equivalent of a programmed, cybernetic machine...*

The Extended Phenotype

Having unfortunately not stressed the importance of altruism within his thesis, Dawkins admits receiving some rather negative feedback from some readers:

...Unwriting a book is one thing. Unreading it something else. What are we to make of the following verdict, from a reader in Australia?

"Fascinating, but at times I wish I could unread it... On one level, I can share in the sense of wonder Dawkins so evidently sees in the workings-out of such complex processes... But at the same time, I largely blame "The Selfish Gene" for a series of bouts of depression I suffered for more than a decade... Never sure of my spiritual outlook on life, but trying to find something deeper – trying to believe, but not being quite able to – I found this book just about blew away any vague ideas I had along these lines, and prevented them from coalescing any further. This created quite a strong personal crisis for me some years ago."

The Selfish Gene 30th anniversary edition

He goes on to describe several similar reader responses, and then:

...[But] if something is true, no amount of wishful thinking can undo it. That is the first thing to say, but the second is almost as important. As I went on to write,

Presumably there is indeed no purpose in the ultimate fate of the cosmos, but do any of us really tie our life's hopes to the ultimate fate of the cosmos anyway? Of course we don't; not if we are sane. Our lives are ruled by all sorts of closer, warmer, human ambitions and perceptions. To accuse science of robbing life of the warmth that makes life worth living is so preposterously mistaken, so diametrically opposite to my own feelings and those of most working scientists, I am almost driven to the despair of which I am wrongly suspected...

The Selfish Gene

For materialists, feelings such as love are merely behavioural phenomena resulting from an interaction of electrons within a "cybernetic machine." Surely no sane materialist would tie his or her life's hopes to something as meaningless as *that*?

John Merrick and Victor Frankl may have been slightly misguided, but there is no evidence that they expected any supernatural intervention in their lives. As spiritual beings they were arguably far closer to the core of Reality than Dawkins. In terms of an appropriate title for a book pondering the grandeur of evolution, it might be more appropriate to use something like "*The selfish Self.*" Or "*The selfish Absolute,*"

because arguably all the little entities which are players in “the great game” of evolution are manifestations of the one ultimate Being, the only Self. Quoting Nietzsche again:

“...Wir sind wirklich in kurzen Augenblicken das Urwesen selbst und fühlen dessen unbändige Daseinsgier und Daseinslust; der Kampf, die Qual, die Vernichtung der Erscheinungen dünkt uns jetzt wie nothwendig, bei dem Uebermaass von unzähligen, sich in's Leben drängenden und stossenden Daseinsformen, bei der überschwänglichen Fruchtbarkeit des Weltwillens;... Trotz Furcht und Mitleid sind wir die glücklich-Lebendigen, nicht als Individuen, sondern als das eine Lebendige, mit dessen Zeugungslust wir verschmolzen sind...”

*(We are really for a brief moment primordial Being itself, feeling its raging desire for existence; the struggle, the pain, the destruction of phenomena, now appear necessary to us, in view of the excess of countless forms of existence which force and push one another into life, in view of the exuberant fertility of the universal Will... In spite of fear and pity, we are the happy living beings, not as individuals, but as the **one** living Being, with whose creative joy we are united.)*

(The Birth of Tragedy) (96)

Sadly, the odds are that Dawkins’ selfish (but neither immortal nor altruistic) genes have blindly worked for hundreds of millions of years to finally back a loser. As is well known, in the event of a nuclear war or other cataclysmic event, bacteria will be the survivors due to their ability to easily endure levels of radiation and other environmental extremes which would immediately be lethal to multi-cellular organisms.

With regard to the construction of a conscious computer, I believe that it could conceivably be possible by the second half of this Century. In this respect I’m positive toward the theories put forward by Stuart Hameroff and Roger Penrose:

<http://phys.org/news/2014-01-discovery-quantum-vibrations-microtubu...>

My objection to the idea of the brain as a "cybernetic machine" is based on the concept of consciousness emerging from the principles of artificial intelligence and von Neumann - Turing machines. Accessing the infinite subtlety of the Quantum Field is an entirely different thing:

...Only a universe that functions as a quantum computer is capable of generating all the marvelous order, diversity, and complexity that we observe around us. As [Seth] Lloyd points out, "quantum mechanics, unlike classical mechanics, can create information out of nothing." (Now that's what I call spooky!) The result is that, as the universe engages in quantum computation over billions of years, it continually creates more opportunities for its constantly diversifying elements and structures to interact with one another in ever more novel and complicated ways. In effect, the cosmos teaches itself how to grow ever more complex as it ages...

The Intelligent Universe: AI, ET, and the Emerging Mind of the Cosmos.

Or in more general terms from the physicist Brian Josephson:

...I think the answer lies in quantum mechanics. According to quantum theory, it's impossible to predict the characteristic of a subatomic particle before it's measured - the particle exists merely as a wave of energy, as potential. But the likelihood of its acquiring each one of as many possible characteristics is predicted with astounding accuracy by an equation called the wave function. The wave function was derived through experimental observation - but nobody really knows why it works. Quantum theory becomes less puzzling if you say that there's some intelligence operating at a very basic level. You might say that the wide-ranging possibilities described by the wave function are really thoughts generated by the intelligence. The intelligence is simply imagining a variety of possible worlds, and when it actually chooses one of those possibilities, then that becomes tangible reality. All the other potentialities simply collapse. That would explain where the wave function comes from - it simply describes the way this universal intelligence works...

ON THE LAST MAN:

The antithesis of Nietzsche's Overman is the "Last Man," who is the ultimate incarnation of hollowness. This appears to be where mankind is headed unless there is a quantum shift in our thinking:

"...We should be careful not to mistake Nietzsche's criticism of Christianity, and particularly his proclamation that "God is dead," for smug atheism. Certainly, Nietzsche has a great deal of venom to expend on Christianity, but he is perhaps even more troubled by the spiritless atheism that he fears will follow it. The claim that God is dead is more of a sociological observation than a metaphysical declaration. Christian morality and its attendant concepts of good and evil no longer have such a powerful hold on our culture as they once did. Nietzsche worries that the world is being increasingly consumed by nihilism, the abandonment of all beliefs. He expresses this worry in the figure of the Last Man, who represents the triumph of science and materialism."

"Nietzsche would likely recognize in early twenty-first century consumer culture a perfect expression of the Last Man, where we direct our tremendous wealth and power to insulating ourselves from all risk and all passions. Zarathustra preaches about the Overman not so much to replace Christianity as to fill the void that opens in a culture where fundamental values are eroding..."

Sparknotes on *Thus Spoke Zarathustra*

Nietzsche was certainly no atheist, but neither was he a theist. He would have strongly resisted the application of either of these labels to his thinking.

The Last Man is arguably not merely a product of materialism and consumerism, but also humanism (including anthropocentrism), racism, nationalism, fundamentalism and their related characteristic of environmental barbarism. Here are some cases in point where religious fundamentalists and nihilistic materialists would be more than happy to work together:

<http://vimeo.com/73234721>

Arguably such a mindset is just one step away from this:

<http://www.theage.com.au/articles/2002/08/28/1030508070534.html>

And "Collateral Murder?":

<https://www.youtube.com/watch?v=Zok8yMxXEwk>

<https://www.youtube.com/watch?v=l6vA8AcfIU4>

But a grasp of the problem is the necessary first step towards dealing with it:

...And thus spoke Zarathustra to the people:

It is time for Man to fix his goal. It is time for Man to plant the seed of his highest hope.

His soil is still rich enough for it. But that soil will one day be poor and exhausted, and no lofty tree will any longer be able to grow there.

Alas! there comes the time when Man will no longer launch the arrow of his longing beyond Man - and the string of his bow will have unlearned to whiz!

I tell you: one must still have chaos in oneself, to give birth to a dancing star. I tell you: you have still chaos in yourselves.

Alas! There comes the time when Man will no longer give birth to any star. Alas! There comes the time of the most despicable man, who can no longer despise himself.

Lo! I show you the Last Man.

"What is love? What is creation? What is longing? What is a star?" - so asks the Last Man, and blinks.

The earth has become small, and on it hops the Last Man, who makes everything small. His species is ineradicable as the ground flea; the Last Man lives longest.

"We have discovered happiness" - say the Last Men, and they blink...

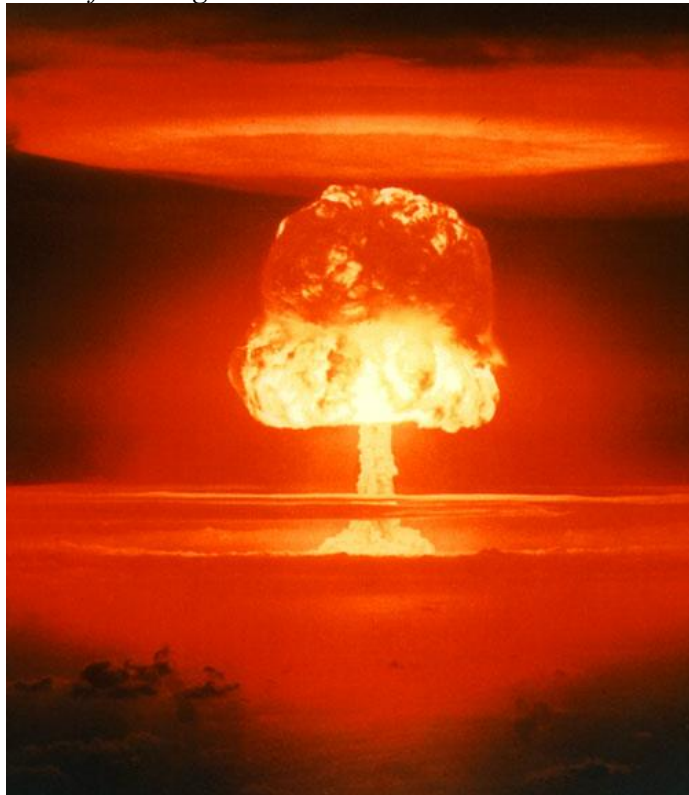
(Thus Spake Zarathustra)

Is this too pessimistic? Nietzsche considered himself a “strong pessimist.” Someone who affirms life despite its involving struggle and turmoil. The Last Man has to be overcome.

It has been said, only half in jest, that the triumph of present-day humanity has been to reach “the dictatorship of the Proletariat,” being the final triumph of mediocrity and mindlessness. This is a state which is not sustainable.

Coming back to Einstein in this context:

“...The world we’ve made, as a result of the level of thinking we have done so far, creates problems we cannot solve at the same level of thinking...”





Unidentified corpse, Hiroshima. Deaths to the end of 1945 totaled 140,000.

Richard Rhodes. *Making of the Atomic Bomb*. Simon & Schuster.

And Nietzsche:

... We have left the land and have taken to our ship! We have burned our bridges - more, we have burned our land behind us! Now, little ship, take care! The Ocean lies all around you; true, it is not always roaring, and sometimes it lies there as if it were silken and golden and a gentle favourable dream. But there will be times when you will know that it is infinite, and that there is nothing more terrible than Infinity... Alas, if homesickness for land should assail you, as if there were more freedom there - and there is no longer any "land" ...

(Die fröhliche Wissenschaft)

EPILOGUE:

“...There are two things,” said Mahomet, “which I abhor: the learned in his infidelities, and the fool in his devotions”...

Indeed. The world has too many “*scientific*” materialists on the one hand, and on the other, too many religious fundamentalists, equally dogmatic in their own way... Truly “...*Fools... the Way is neither that not this...*”

The great mathematician and logician Kurt Gödel proved that we cannot logically understand Reality within the limitations of any formal system of logic. In his book *Gödel, Escher, Bach*, Douglas Hofstadter discusses this concept with regard to Zen Buddhism:

...Zen recognizes its own limitations, just as mathematicians have learned to recognize the limitations of the axiomatic method as a method for attaining truth. This does not mean that Zen has an answer to what lies beyond Zen any more than mathematicians have a clear understanding of forms of valid reasoning which lie outside of formalization. One of the clearest Zen statements about the borderlines of Zen is given in the following strange koan, very much in the spirit of Nansen:

Tozan said to his monks, “You monks should know there is an even higher understanding in Buddhism.” A monk stepped forward and asked, “What is the higher Buddhism?” Tozan answered: “It is not Buddha.”

*There is always further to go; enlightenment is not the end-all of Zen. And there is no recipe which tells how to transcend Zen; the only thing one can rely on for sure is that Buddha is **not** the way. Zen is a system and cannot be its own metasystem; there is always something outside of Zen, which cannot be fully understood or described within Zen...*

(Gödel, Escher, Bach) (46)

Tibetan Vajrayana Buddhism also intuitively acknowledges this fact:

...Although philosophers explain the transparent openness of appearances as empty of permanent characteristics and completely indeterminable, this universal indeterminacy can never itself be determined. Although sages report the nature of awareness to be luminosity, this limitless radiance cannot be contained within any language or religious system. Although the very essence of Mind is to be void of either subjects or objects, it tenderly embraces all life within its womb...

and:

...Even genuine religious teaching can generate narrowness of vision. Trust only the approach that is utterly vast and profound...

(Tilopa’s Song to Naropa) (85)

Similarly, Bede Griffiths puts the case from his Christian perspective:

...We have to always bear in mind that the divine Mystery, the ultimate Truth, always lies beyond our conception... The Christian, to whatever church he may belong, cannot claim to have the monopoly of the Truth. We are all pilgrims in search of truth, of reality, of final fulfillment. But we have to recognise that this Truth will always remain beyond our understanding...

(The Marriage of East and West) (30)

And finally, Aristotle displayed a humility which was not, unfortunately, to be appreciated by his followers:

‘...No-one is able to attain the truth adequately, while on the other hand, we do not collectively fail, but everyone says something true about the nature of things, and while individually we contribute little or nothing to truth, by the union of all a considerable amount is amassed...’

The Politics

There is thus a necessary sense in which the perennial philosophy is skeptical, acknowledging that absolute truth can never be fully grasped by a finite mind, or even our finite species. The knowledge that Reality is

not ultimately knowable is at the same time appalling and exhilarating.

Whatever rationally-based theory of existence we may conceive, it is *certain* that it must eventually prove to be incomplete. The framework within which the theory is contained will be seen to be inadequate and will necessarily be transcended. In the realm of science, Newton's system replaced that of medieval science, and was in turn replaced by Einstein's, and so that system eventually will give way to theories of broader scope. The philosopher and mathematician Alfred North Whitehead was firmly opposed to dogma, whether in science or religion:

...There have been reactions and revivals. But on the whole, during many generations, there has been a gradual decay of religious influence in European civilisation. Each revival touches a lower peak than its predecessor, and each period of slackness a lower depth. The average curve marks a steady fall in religious tone... Religion is tending to degenerate into a decent formula with which to embellish a comfortable life...

...Religion will not regain its old power until it can face change in the same spirit as does science. Its principles may be eternal, but the expression of those principles requires continual development...

...Religion is the vision of something which stands beyond, behind, and within, the passing flux of immediate things; something which is a remote possibility, and yet the greatest of present facts; something that gives meaning to all that passes, and yet eludes apprehension; something whose possession is the final good, and yet is beyond all reach; something which is the ultimate ideal, and the hopeless quest...

(*Science and the Modern World*) (64)

The test of any spiritual path should be that it is in accord with reason and science *and ethics*.

The Upanishads ask “...*What is the world but Spirit? ...*” Indeed, but it might also be asked *what is the world but a Dream, a Nietzschean Tragedy, a Sacred Game, and Poetry... and mathematical Beauty, and Matter? ...* Each of these “reflections” or aspects or dimensions of ultimate reality is rich and profound and infinite in its own way, but desperately inadequate on its own. Each can simply express a particular aspect of an infinitely complex Reality which in turn contains an Infinity of aspects.

Over the last several millennia, Mankind has begun to look back over its shoulder at the amazing saga of the development of the Universe and Life within it, the vast ascent of “Mount Incredible,” and has endeavored to comprehend the underlying *raison d'être*, if any. Recently this writer looked down upon a nest of ants going about their duties, and contemplated the meaning of life for one of these minute, but at the same time very impressive and inspiring, creatures working diligently within their fragile communities. It seemed that the life of a particular ant was meaningless as long as it was considered from the viewpoint of its individuality.

Similarly, it could be argued that for a human being, life on the individual level is meaningless. In Greek mythology, Sisyphus offended the gods and was consequently condemned to roll a huge boulder up a hill for eternity. Each time, as he laboriously reached the summit, the boulder slipped from his control and pushed him back to the bottom. The task was meaningless, and can be seen as a metaphor for the condition of Man, as each generation “rolls their rock up to the top of the hill,” only to then pass away and leave it for the next generation to begin the task of rolling the boulder back up again. It is meaningless for the individual, but not necessarily for the species. A little *may* be gained each time the rock is raised. Of course, for the absolutely materialistic and selfish life, this is not so.

There is a case that meaning is derived from the ant’s striving within its little group, which in turn performs a vital role within the greater ecosystem, which includes each of us. Perhaps, if we can grasp this meaning of life for the individual ant, we can then have just an inkling of the meaning of Life in our own context. Again, Nietzsche’s acknowledgement of the ultimate importance of an individual creating his own meaning in dealing with Reality is relevant:

*“...If we have a **why** to live for we can deal with almost any **how**...”*

Within the context of the perennial philosophy, there’s an argument that there are at least *three* dimensions

of the meaning of life - that each living thing has complementary requirements:

- An urge to strive, to preserve its individual autonomy, and achieve gratification through the pursuit of enlightened individual excellence, or *areté*.
- An integrative tendency to function as part of a larger whole, so that individual “fulfillment” is in the end incomplete unless seen in the context of what it contributes to the welfare of the Whole, which may be in turn family, community, ecosystem, world, but must in the ultimate be seen as the Absolute... all that exists, and *super-exists*. The Confucian ethic of **Jen** is one of the most sophisticated manifestations of this principle: “*the man of jen forms one body with all things without any differentiation. Righteousness, propriety, wisdom, and faithfulness are all [expressions of] jen*”
- A need to be creative, to give birth to new thoughts and things, and in the act of creation, to manifest a little of the infinite creativity of the Universal Mind on the personal level.

Confucius’ concept that “*Man can make the Tao great,*” is in accord with this.

But then, as someone once pointed out:

“...*There are more things in Heaven and Earth,
Horatio, than are dreamt of in your philosophy...*”

Absolutely... and this is something to be celebrated!

REFERENCES:

- (1) *MEDITATIONS*; Marcus Aurelius; Penguin Classics
- (2) *COLERIDGE AND THE WORDSWORTHS*; Hester Burton
- (3) *THE SPECTRUM OF CONSCIOUSNESS*; Ken Wilber
- (4) *THE TAO OF PHYSICS*; Fritjof Capra
- (5) *THE RUBAIYYAT OF OMAR KHAYYAAM*; Translated by Robert Graves and Omar Ali-Shah
- (6) *AND THERE WAS LIGHT*; Rudolf Thiel
- (7) *EIGHT PHILOSOPHERS OF THE ITALIAN RENAISSANCE*; Paul Oskar Kristeller
- (8) *THE HEART OF MATTER*; Pierre Teilhard de Chardin
- (9) *THE TURNING POINT*; Fritjof Capra
- (10) *ENCYCLOPEDIA BRITANNICA (14th Edition)*
- (11) *JUNG AND THE STORY OF OUR TIME*; Laurens Van der Post
- (12) *C.G.JUNG: HIS MYTH IN OUR TIME*; Marie-Louise Franz
- (13) *THE PROPHET*; Khalil Gibran
- (14) *THE ACT OF CREATION*; Arthur Koestler
- (15) *THE MINIMUM WORKING HYPOTHESIS*; Aldous Huxley
- (16) *FRIEDRICH NIETZSCHE IN SEINEM WERKEN*; Lou Andreas-Salome
- (17) *ON THE IMPROVEMENT OF THE UNDERSTANDING*; Baruch Spinoza
- (18) *RELIGION IN THE MAKING*; Alfred North Whitehead
- (19) *LEONARDO DA VINCI*; Hayward Gallery, London
- (20) *SCIENCE AND THE MODERN WORLD*; Alfred North Whitehead
- (21) *MODES OF THOUGHT*; Alfred North Whitehead
- (22) *ELEMENTS OF METAPHYSICS*; A.E.Taylor
- (23) *THE PERENNIAL PHILOSOPHY*; Aldous Huxley
- (24) *CHILDE HAROLD'S PILGRIMAGE*; Lord Byron
- (25) *MAN AND THE UNIVERSE, THE PHILOSOPHERS OF SCIENCE*; Commins and Linscott, ed.
- (26) *QUANTUM QUESTIONS*; Edited by Ken Wilber
- (27) *COMPENSATION*; Ralph Waldo Emerson
- (28) *GOD AND THE NEW PHYSICS*; Paul Davies
- (29) *ENCYCLOPAEDIA OF MYSTICISM*; John Ferguson
- (30) *THE MARRIAGE OF EAST AND WEST*; Bede Griffiths
- (31) *THE AQUARIAN CONSPIRACY*; Marilyn Ferguson
- (32) *WALDEN*; Henry David Thoreau
- (33) *NEW HEAVEN AND EARTH*; Joyce Carol Oates.
- (34) *The Second Axial Period: An Hypothesis*; VIDYA journal; Ron Penner
- (35) *ADVENTURES OF IDEAS*; Alfred North Whitehead
- (36) *IF WE ARE TO SURVIVE THIS DARK TIME*; Bertrand Russell
- (37) *THE LOOKING-GLASS UNIVERSE*; John P. Briggs and F. David Peat
- (38) *WHOLENESS AND THE IMPLICATE ORDER*; David Bohm
- (39) *JESUS: THE EVIDENCE*; Ian Wilson; Pan Books
- (40) *INFINITY AND THE MIND*; Rudy Rucker
- (41) *THE COSMIC CODE*; Heinz Pagels
- (42) *TIMAEUS*; Plato; Penguin Classics
- (43) *THE SYMPOSIUM*; Plato; Penguin Classics
- (44) "The Stress Guru: Dr.Ainslie Meares"; *THE AUSTRALIAN* newspaper
- (45) *THEORIES OF EXISTENCE*; T.L.S.Sprigge
- (46) *GÖDEL, ESCHER, BACH: an eternal golden braid*; Douglas Hofstadter
- (47) *LEONARDO'S INVENTIONS*; Jean Mathe; translated by David MacRae
- (48) *MAN AND THE ENVIRONMENT*; edited by Wes Jackson
- (49) *MYSTICISM; a study and an anthology*; F.C.Happold; Pelican Books
- (50) *LETTERS FROM A STOIC*; Seneca; Penguin Classics

- (51) *THE REPUBLIC*; Plato
- (52) *VISIONS OF A NEW FAITH*; *Omega Science Digest*
- (53) *WILDLIFE AUSTRALIA Journal*; Autumn 1986.
- (54) *THE DANCING WU LI MASTERS*; Gary Zukav
- (55) *THE RISE OF THE WEST*; William McNeill
- (56) *THE SLEEPWALKERS*; Arthur Koestler
- (57) *SUPERFORCE: the search for a Grand Unified Theory of Nature*; Paul Davies
- (58) *MY LAND AND MY PEOPLE: The autobiography of the Dalai Lama*
- (59) *MIND AND NATURE: a necessary unity*; Gregory Bateson
- (60) *SELF RELIANCE*; Ralph Waldo Emerson
- (61) *TOWARDS A PSYCHOLOGY OF BEING*; Abraham Maslow
- (62) *TAO: THE WATERCOURSE WAY*; Alan Watts
- (63) *THE OVER-SOUL*; Ralph Waldo Emerson
- (64) *SCIENCE AND THE MODERN WORLD*; Alfred North Whitehead
- (65) *THE TAO TE CHING*; Lao Tzu
- (66) *THE PORTABLE NIETZSCHE*; Selected and translated by Walter Kaufmann; Penguin
- (67) *THE PSYCHOLOGY OF CONSCIOUSNESS*; Robert E. Ornstein
- (68) *NIETZSCHE: PHILOSOPHER, PSYCHOLOGIST, ANTICHRIST*; Walter Kaufmann; Penguin Classics
- (69) *THE LIVES OF A CELL*; Lewis Thomas
- (70) *IF THE WAR GOES ON*; Hermann Hesse
- (71) *ZEN AND THE ART OF MOTORCYCLE MAINTENANCE*; Robert M. Pirsig
- (72) *PAST AND PRESENT*; Thomas Carlyle
- (73) *AN ESSAY ON MAN*; Alexander Pope
- (74) *A SHORT HISTORY OF EDUCATIONAL IDEAS*; R.F. Curtis & M.E.A. Boulwood
- (75) *THE INTELLIGENT UNIVERSE*; Fred Hoyle
- (76) "The Search for ET Goes On"; John Gribbin; *NEW SCIENTIST*, July 23, 1987
- (77) *COSMIC CONSCIOUSNESS*; Richard M. Bucke
- (78) *A SOURCE BOOK IN CHINESE PHILOSOPHY*; Translated and compiled by Wing-Tsit Chan
- (79) *ON HEROES, HERO-WORSHIP AND THE HEROIC IN HISTORY*; Thomas Carlyle
- (80) *THE LIFE AND WORKS OF GOETHE*; G.H.Lewes
- (81) *THUS SPAKE ZARATHUSTRA*; Friedrich Nietzsche; translated by Walter Kaufmann; Penguin Classics
- (82) *BEYOND GOOD AND EVIL*; Friedrich Nietzsche; translated by R.J. Hollingdale; Penguin Classics
- (83) *NEW PATHWAYS IN SCIENCE*; Sir Arthur Eddington
- (84) *THE AWAKENING OF THE WEST; The Encounter of Buddhism and Western Culture*; Stephen Batchelor; Parallax Press
- (85) *MOTHER OF THE BUDDHAS*; Meditation on the Prajnaparamita Sutra; Translated by Lex Hixon
- (86) *BUDDHISM*; Christmas Humphreys; Penguin Books
- (87) *THE HERMETICA: The Lost Wisdom of the Pharaohs*; Translated by Timothy Freke and Peter Gandy
- (88) *LIVING BUDDHA, LIVING CHRIST*; Thich Nhat Hanh
- (89) *INTRODUCTION TO THE BHAGAVAD GITA*; Georg Feuerstein
- (90) *CICERO AND THE ROMAN REPUBLIC*; F.R.Cowell; Penguin Classics
- (91) *THE GREEKS*; H.D.F Kitto; Penguin Books
- (92) *WORSHIP*; Ralph Waldo Emerson
- (93) *LILA: An Enquiry Into Morals*; Robert Pirsig; Corgi Books
- (94) *A NIETZSCHE READER*; selected and translated by R.J.Hollingdale; Penguin Classics
- (95) *VEDANTA FOR THE WESTERN WORLD*; Editor: Christopher Isherwood; Unwin Books
- (96) *BASIC WRITINGS OF NIETZSCHE*; Edited by Walter Kaufmann; The Modern Library

- (97) *THE SOUL OF THE WHITE ANT*; Eugene Marais; Penguin Books
- (98) *ON AGGRESSION*; Konrad Lorentz; Methuen & Co
- (99) *POWER*; Ralph Waldo Emerson
- (100) *IF THIS IS A MAN*; Primo Levi
- (101) *PRINCIPIA MATHEMATICA*; Isaac Newton
- (102) *OPTICS*; Isaac Newton
- (103) *THE GREAT PHILOSOPHERS*; Ray Monk and Frederic Raphael
- (104) *THE GENIUS WITHIN*; Frank T. Vertosick; Harcourt
- (105) *ZENO - STOICISM - STOIC PHILOSOPHY*; <http://www.spaceandmotion.com>
- (106) *THE SOVEREIGNTY OF GOOD*; Iris Murdoch; London: Routledge & Kegan Paul
- (107) *PENSEES*; Blaise Pascal
- (108) *FROM DAWN TO DECADENCE*; Jacques Barzun; Harper Collins
- (109) *THE YEAR 2000*; Anthony J Wiener and Herman Kahn
- (110) *THE GAY SCIENCE*; Friedrich Nietzsche
- (111) *DAYBREAK: THOUGHTS ON THE PREJUDICES OF MORALITY*; Friedrich Nietzsche; *Cambridge Texts in the History of Philosophy*.
- (112) *SACRED SCIENCE*; Michael Shermer; *Scientific American*; July 2008
- (113) *MAN AND MAN; THE SOCIAL PHILOSOPHERS*; Edited by Commins & Linscott; *The Pocket Library*.
- (114) *THE PHAENOMENA*; Aratus; *Theoi E-Texts Library*
- (115) *MEMORABILIA*; Xenophon (trans. Marchant)
- (116) *BEFORE PHILOSOPHY*; H. and H.A. Frankfort, John A. Wilson, Thorkild Jacobsen; Penguin Books
- (117) *THE CAMBRIDGE COMPANION TO BACH*; Cambridge University Press; John Butt editor
- (118) *RELIGION AND SCIENCE*; Albert Einstein
- (119) *THE WEALTH OF NATIONS*; Adam Smith
- (120) *THE GITA OF J.ROBERT OPPENHEIMER*; James A. Hijaya; *Proceedings Of The American Philosophical Society Vol. 144, No. 2, June 2000*
- (121) *SACRED AND HERBAL HEALING BEERS*; Stephen Harrod Buhner; *Brewers Publications*
- (122) *NEWTON'S SCIENTIFIC AND PHILOSOPHICAL LEGACY*; Paul B. Scheurer, G. Debrock; *Google Books*
- (123) *BRIGHTER THAN A THOUSAND SUNS: A PERSONAL HISTORY OF THE ATOMIC SCIENTISTS*; Robert Jungk; *Mariner Books*
- (124) *CONSTANTINE'S SWORD*; James Carroll; *Mariner Books*
- (125) *ADVICE TO A YOUNG SCIENTIST*; Peter Medawar; *Google Books*
- (126) *THE BIG BANG NEVER HAPPENED*; Lerner
- (127) *THE INSUFFICIENCY OF MATERIALISM*; Alexander Solzhenitsyn
- (128) *THE ESSENES: THEIR HISTORY AND DOCTRINES*; Christian D. Ginsburg; *Google Books*
- (129) *THE ORIGIN OF LIFE*; Paul Davies; *Penguin Books*
- (130) *A PRIMER TO GIORDANO BRUNO: NEW AGE PROPHET, MYSTIC AND HERETIC*; Julia Jones. *Kindle edition*.
- (131) *A HISTORY OF GREEK MATHEMATICS: FROM ARISTARCHUS TO DIOPHANTUS*; Sir Thomas Heath; *Dover Publications*.
- (132) *NORMATIVITY FOR NIETZSCHEAN FREE SPIRITS*; Simon Robertson; in *Inquiry: An Interdisciplinary Journal of Philosophy* 56 (6) pp. 591-613
- (133) *THE ASTRONOMY OF SHAKESPEARE*; John Candee Dean; www.all-about-psychology.com.; *Kindle Edition*
- (134) *THE SCIENCE DELUSION*; Rupert Sheldrake; *Hodder & Stoughton. Kindle Edition*.
- (135) *BIOCENTRISM: How Life and Consciousness are the Keys to Understanding the True Nature of the Universe*; Bob Berman and Robert Lanza; *BenBella Books, Inc. Kindle Edition*.
- (136) *THE INTELLIGENT UNIVERSE: AI, ET, AND THE EMERGING MIND OF THE COSMOS*. James N. Gardner; Ray Kurzweil. *Kindle Edition*