SCRAPS 1996

EPIPHANY

INTRODUCTION

Tonight we have come together to celebrate a special day. But we may rightly ask , 'Why is this a special day?' Or for that matter what makes any day special? Are not all days the same, each 24 hours long. Of course sometimes night prevails, sometimes daylight, but a day is still just a day. Yet in all cultures, both past and present, certain days are set aside as being special. These days usually mark some anniversary, the commemoration of some historical (or supposed historical) event, such as the signing of the Declaration of Independence on the fourth of July.

Frequently, however, the original meaning of the commemoration is lost and even the date is shifted. We have in recent memory the example of November 11th. In 1918 an armistice ending the "War to end all wars", was signed. The symbolic time and date of the 11th hour of the 11th day of the 11th month was selected to impress future generations with the fact that time is short for terminating the terrible role of war in social history. But all of this was soon altered and the original meaning forgotten. After new wars, the day became 'Veterans Day', and though for a while still celebrated on November 11th, soon the day was shifted to the nearest Monday or Friday to accommodate the emerging overriding value of 'the long week end'.

So why is today, January 6th, a special day? What does it commemorate? In ancient Egypt, this date was set aside for the Festival of Osiris. It marked the rebirth of this god who had been cut into pieces, but was brought together again into renewed life. As with November 11th in our time, this date was taken over and given new meanings by later peoples. In Christian tradition, it marked the Baptism of Jesus, which is to say the day of his spiritual birth (as contrasted with the Nativity or day of physical birth). More recently in the Christian West, this day was selected to mark the visit of the Three Kings to the Christchild bringing their gifts and coming to worship. But going back before the Kings, before the baptism, before Osiris, was there anything that made this day special, causing it to attract the various festivals? When we look at the natural order itself, before cultures or civilizations, the answer was yes, this was a special day.

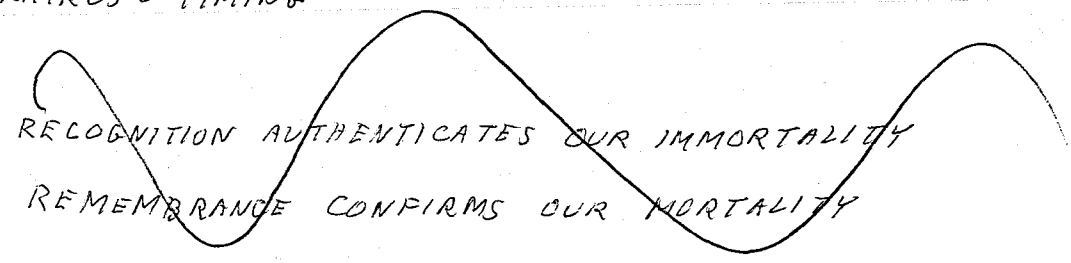
EPIPHI.WPG 96/01/06
Santa Fe, NM

On or about this date the earth moves to its closest distance from the sun, the point in the orbit called perihelion. Also on this date the motion of the sun in the sky changes from being dominantly eastward to dominantly northward. It is a tropos when the sun truly begins its northward journey. And at the latitude of Alexandria and roughly throughout the world's temperate zone, this is the date of latest sunrise, the day of the darkest morning. It is not surprising then that in many cultures, peoples sensed a day of basic cosmic significance and found historical or mythic reasons to celebrate it. The point in all of this is that most special days are really special, but what we project or attach to them and what we tell ourselves is the reason for our celebration can be quite arbitrary and even distorting. But what emerges here is an awareness of two different ways of looking at time. One as **historical**, time as linear and ongoing, the other as **cyclical**, time as recurring and repeating.

The year is a great cycle, with the patterns of movement of the sun repeated over and over, giving us the seasons, times of light and darkness, times of heat and cold, and times filled with more subtle effects. Primitive and pagan peoples celebrated the year for what it was, for the visible happenings of the extremes of the solstices, the balance of the equinoxes, the numinous times of the spirit and the manifest times of the earth. The ancient Hebrews were credited with departing from this level of celebration of the raw cyclical year to the level of substituting for the sun-earth-moon events a set of historical happenings–Passover, Purim, Rosh na-shanah, ... Christians followed this practice, Easter, Christmas, Epiphany,... using their own historical or mythic events. And this practice prevails in the West. Our national festivals, except perhaps Thanksgiving, mark anniversaries, birthdays or historical events.

However, in the historical mode of celebration we have lost touch with the underlying cycles, with the real basis for Kairos–the proper time to celebrate certain aspects of life– which authenticates history and not the reverse. For example, in celebrating Christmas as an historic event we lose its true power, its power as a cyclic event. Something symbolized by Christmas has a reality beyond the historic and mythic and it occurs in the depths of December not just once but every year. In our age we have embraced Chronos and rejected Kairos. We have substituted remembrance for recognition, and in doing so have ~~replaced~~ chosen immortality ~~with~~ over mortality.

CHRONOS = TIME
KAIROS = TIMING



RECOGNITION AUTHENTICATES OUR IMMORTALITY

REMEMBRANCE CONFIRMS OUR MORTALITY

L.K.

ON HAMMING TOTEMS

Since ancient times peoples have performed rituals and exchanged tokens to symbolize their bonding to one another. Rings are exchanged in marriage, leaves of the ginkgo tree are exchanged in sealing friendship, candles are given the newly baptized in recognition of their bonding to the church, American Indians made special 'totems' to express their intimate relation to the animal world . There evidently is some special link created through the possession of identical tokens among those who are bonded, or in possessing a totem identical in form to that animal from which one seeks special powers.

A possible infrastructure for this symbolization of bonding through mutual possession of identical tokens or totems was inadvertently supplied by ~~Robert~~* Hamming while developing computer codes at Bell Labs. Hamming invented a new kind of space in which distance is measured by difference. The more dissimilar objects are, the greater their separation in 'hamming space'. The more similar, the closer their proximity to one another, and If two objects are identical then they occupy the exact same position in hamming space. Evidently something like hamming space, as well as ordinary physical space, plays an important role in our lives. Two people who are "in tune", even though they are separated by large distances in physical space, are in close proximity in hamming space. This is well symbolized by identical objects, though separated in physical space, bringing their neighborhoods together in hamming space.

If we keep in our respective homes items that are identical, then we remain intimately linked through hamming space. But this brings us to realization that in the age of mass production where we all possess identical plates, pans, telephones, cars, etc., we are crowded together in hamming space as well as in the cities in physical space. To preserve special linkages, our hamming totems must be both identical and unique. That is while the totems must be exact duplicates there must also be no other objects elsewhere like them. To ensure uniqueness, specially crafted duplicates are the answer. Mass production is out. We visualize separated members of a family, friends or lovers each having identical unique specially crafted hamming totems to support their bonding and togetherness.

* RICHARD W. HAMMING

HAMTOT.WPG 96/01/15, rev 96/05/07
Amherst Rag

See Ivar Peterson's "The Jungles of Randomness" p 117 ff

COINS as TOTEMS 04-08-21

According to proximity in H-space
coins we carry connect us to an
economic locale. It is high density
since soms many carry the same coins

But multiplicity of a totem diffuses
its connectivity. The power
of a totem-connection is maximum
when the totem is unique [but ∃ at least 2]

cf. Miss Manners on the totem of the linen guest towell

January 17, 1996

S H O R T S

1. In spite of the end of the empire, English snobbery and arrogance are still alive and well. Americans have experienced them ever since Lord Cornwallis sent a deputy to surrender to Washington at Yorktown.

2. Through the present system of lobbying and campaign funding we have become a nation in which the citizens in effect are, not individuals, but corporations. As is usual we never give credit to the real designer of the system. In this case it was a fellow named Mussolini. He labelled the Corporate State, "Fascism". V. L. H.

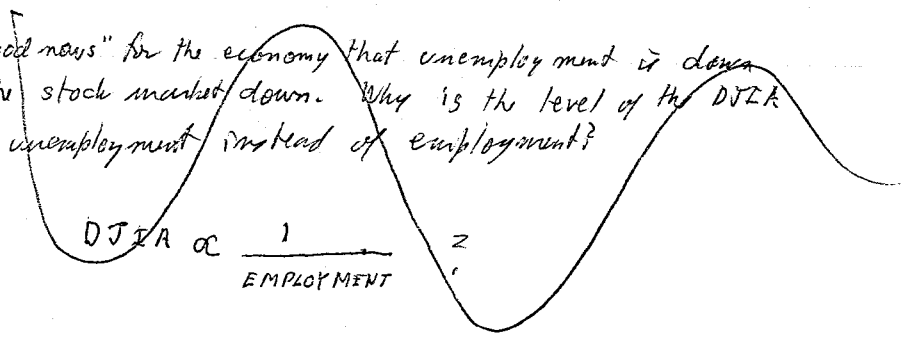
3. Americans are indignant over the caning of a young man in Singapore for defacing property with a spray can, but are whole heartedly in support of capital punishment.

4. Recently while jogging in the mountains the mother of a small child was attacked by a mountain lion and died of wounds. The lion was hunted down and shot, leaving an orphaned cub. Concerned citizens made respective contributions for the care of the orphans: $21,000 for the cub and $9,000 for the child.

5. Clinton as President of the United States makes $96.15/hour. His lawyer, Robert Bennett, makes $475/hour.

6. In 20 years the U.S. will be a one employer country. Everyone who has a job will be working for Bill Gates, but few of the 3708 remaining job holders will know it.

The "good news" for the economy that unemployment is down sends the stock market down. Why is the level of the DJIA tied to unemployment instead of employment?



$$DJIA \propto \frac{1}{EMPLOYMENT}$$

ESOEXO1.WP6 February 12, 1996

OUTER AND INNER EPISTEMOLOGIES

Apodictically human experience is dualistically divided into sensory and non-sensory categories. However, the dominant Western worldview for the past few centuries has emphasized the sensory aspects of existence to the extent that the thrust of its inquiry is toward reducing all experience and phenomena to a sensory and materialistic base. This non-dualistic dogma found extreme expression in the thirties and following decades in the views of the Logical Positivists. While the cutting front of scientific inquiry recognizes that pure objectivity is unsustainable and no longer adheres to the positivist dogma that what is non-sensory is nonsense, the residue of positivism still pervades Western thought and research. It asks where in the body or brain is the mind located. It cannot sustain, even hypothetically, the alternative non-dualistic question, where in mind does the body exist.

Postponing, arguing the ontological argument of dualism vs. monism, ~~ontologically~~, it is clear that dualism must be predicated epistemologically. That is to say that those epistmologies, such as the scientific, which have proved successful in exploring the world of sensory experience are not suited to exploring the so-called inner world. An extensive collection of inner epistemologies do exist and have proven successful over millennia for exploring inner or mystical experience. Had the positivists been willing to utilize an inner epistemology, they would have become aware of a world that their external epistemologies could never reveal much less explore. It must repeatedly be emphasized that the inner world cannot be explored scientifically and to try to adapt the epistemologies of science to its exploration goes nowhere.

However, The general proposition that an ontology is the product of an epistemology not only maintains for the sensory world but appears also to hold for the inner world. The "practice" that is adopted for inner exploration determines the nature of the inner experiences encountered, much as the instruments and techniques used in exploring the material world determine the physical phenomena encountered. In both the inner and outer cases each epistemology reveals but a **facet** of their respective worlds. The ontological questions arise through the differences in the facets and whether the inner and outer worlds themselves are also but facets of one World. Since no one epistemology is all encompassing we can only know the total World by applying multiple epistemologies, studying their overlaps and stitching together their results. To expect the product to be seamless is expecting too much from limited finite organisms.

the capabilities of

Epistemologies of the Intellect 4 fold
Epistemologies of the Heart 3 fold

And if the Gödelian argument, the facets may not be stitchable into one picture

CHRISTIANITY IN THE NEWS
ONE DAY IN FEBRUARY 1996

1. London–The seventeen month cease-fire between the Catholic IRA and the British supported Protestants of Northern Ireland was declared at an end. Last week the IRA set off a bomb in London killing two and causing $230 million in damage. . In an interview in An Phoblacht, the weekly newspaper of Sinn Fein, the IRA's political arm, an IRA official was quoted as saying that the group had no plans to resume the cease-fire. Today the police defused a second IRA bomb in London's crowded West End.

2. Dedham, Mass–A witness testified today, "In a voice like a preacher," John Salvi, the man charged with murdering two receptionists and wounding five others in attacks on two abortion clinics on Dec 30, 1994, shouted, "This is what you get! You should pray the rosary!" as he pumped ten bullets into receptionist Lee Ann Nichols. In the first cross-examination of the trial , Salvi's lawyers challenged the suggestion that their client had been motivated by his anti-abortion views, rather than by delusions against Roman Catholics.

3. Manchester, NH–The Christian Coalition plans a massive 'God and Country' rally this evening in Manchester. The New Hampshire Right to Life organization counts about 32,000 people as supporters. "Fifty-five thousand votes and you win New Hampshire," a right to life spokesman said. A Merrimack school board member who has battled the Christian Coalition on curriculum issues, said the influence of religious conservatives simply cannot be underestimated. When allied with the Second Amendment right to have guns groups, they are unbeatable.

4. San Francisco, CA–The arrest of Monsignor Patrick O'Shea on suspicion of molesting nine adolescent visitors to his Lake Berryessa vacation home came soon after the first allegations of child molestation by the Rev. Gary Timmons who now faces criminal charges in Humboldt, Mendocino and Sonoma counties. O'Shea and Timmons were named along with the Rev. Austin Peter Keegan as defendants in a civil lawsuit that already has resulted in more than $1.3 million in settlements by the Archdiocese. Criminal charges against O'Shea are presently on hold. An appellate court ruled the law used to charge O'Shea cannot be applied to cases like his that date back to the mid-1970's, because the deadline for prosecution has passed and cannot be retroactively extended.

SOME EXCERPTS FROM TOM PARKER'S "RULES OF THUMB"
(HOUGHTON-MIFFLIN)

#67 TAKING A NEW JOB
When taking a new job, beware of those who are too friendly too soon.

#12 EDITING A MAGAZINE
You should plan on reading through at least 200 unsolicited manuscripts to find one that is suitable. (from Organic Gardening)

#13 EDITING ARTICLES
When editing an article, you rarely go wrong crossing out the first page and a half. (from American Demographics)

#14 EDITING A MAGAZINE
Three double spaced typewritten pages of manuscript can be edited into one magazine column without anyone, not even the author, noticing that 20% of the words are gone. (from Fine Woodworking)

#112 PUBLISHING A MAGAZINE
A magazine or newspaper needs to be about 50% advertizing to survive financially.

#113 WRITING A FINAL SENTENCE
When writing, if you are searching for a final sentence, you've probably already written it.

#271 BUYING LIFE INSURANCE
The average family should have life insurance coverage worth at least six times its annual income.

DELEGATING AUTHORITY
"I make it an absolute rule not to make decisions that somebody else can make. The first rule of leadership is to save yourself for the big decisions." (Richard M. Nixon)

REMEMBERING THORNTON

On the second of January 1996, Dr. Thornton Leigh Page passed away in his home in Houston, the consequence of a heart attack. Thornton's career spanned six decades of astronomy, beginning in academia and ending with NASA space telescopes. His contributions were many and outstanding. But we also remember Thornton as a bon vivant, for his warmth and sense of gemutlichkeit. He supplied a vista of openness during a period of astronomical dogmatism. Whenever Thornton was in the chair, there was fairness, inspiration and humor. He brought out the best in all. He was one of those professionals who supplied the 'glue' that bound astronomers into a community. We needed him.

Thornton's aristocratic presence was illustrated in an incident that occurred in Yalta after the 1958 International Astronomical Union meeting in Moscow. There was a foul up in our schedule and the Intourist people had failed to provide us with breakfast. Thornton and I took off for the open market and procured melons, fruit, bread and other items for our group's breakfast. We noticed that the old babushkas who were shopping in the market were getting excited, putting their heads together, whispering and pointing to Thornton. Understanding a little Russian, we heard 'veliki kniaz Nicholas'. It turned out that, decades after the revolution, the Grand Duke Nicholas, cousin of the Czar, had returned to visit. Thornton did indeed look like this general who led the Russian armies in the first world war. Word spread and all the way back to the hotel crowds gathered to gawk at the homecoming of the Grand Duke.

Winston Churchill solemnized at the funeral of Rupert Brooke, "We shall not see his like again." What we can say at the parting of Thornton Page, "We hope that we shall see his like again." Our need is great.

Lou Williams Page died on September 20, 1997 at her home. She will be greatly missed.

Her memorial service will be held at St. Thomas the Apostle Church in Nassau Bay, Texas on September 30, 1997 at 10:30 a.m.

Her family can be reached at 18639 Pt. Lookout Drive, Nassau Bay, Texas 77058 (281-333-3770).

In lieu of flowers, a donation to the Bay Area SPCA (P.O. Box 580468, Houston, TX 77258) would be appreciated.

An Encounter With A Saint

Robin Amis asked, "Have you ever seen a saint?" This question took me by surprise, I had never been asked this before nor given the matter much thought. On the other hand I have often been asked a rather parallel question: "Have you ever seen a ghost?" Certainly most of us have never seen either, but in my experience I have indeed encountered both. While I vividly remember the five occasions and three locations of my encounters with ghosts and the effect all of this had on my view of reality, after thinking about two other experiences that deeply changed my life, I recognized that they involved an encounter with saints. Leaving the ghost stories for another time, I want here to tell Robin Amis, yes I have seen saints.

One of the encounters was in India at Mahabalapuram, an ancient village of temples some built with stone, some carved out of living rock. The other encounter was in Japan, on a short voyage on the inland sea from Hiroshima to Miyajima. Both events greatly changed my life. The Mahabalapuram event is told in the story of 'The Gift of Siva', this is the Miyajima story.

While in Japan in 1959, I felt compelled to make a pilgrimage to Hiroshima. I was told I was unusual, most Americans didn't like to go there. They had a denied guilt over using the bomb. Many stories circulated about curious events the day the bomb was dropped. Dr. Murayama, an astronomer, told us how for some unexplainable reason on the morning of August 6, 1945, when he had reached the station to take the train into Hiroshima, he realized he had forgotten his brief case. He hurried home to retrieve it but when he got back to the station he had missed the train. That is why he was alive. He said many things of that sort, events that Jung would call synchronicities, had occurred to him and some of his friends.

He said as long as we were in that part of Japan we should see Miyajima, where there was a beautiful temple with its famous tori in the water, one of the five most scenic spots in Japan. Murayama, my friend Major John Cochran, and I boarded the small pedestrian open ferry that would take us across the bay. We had just taken our seats when I felt a strange salutary presence, a feeling of peace and confidence. I noticed other people on the boat had turned and were looking toward the dock. I turned around to see what was going on. Coming along the dock was a small solitary bald man wrapped in a monk's robe. He was smiling, not only smiling, but radiating joy. He seemed to be swathed in light and exuded love towards us all. He got on board and bowed to us. Who was this? Coming from this city of radioactive desolation and radiating a totally different energy. What contrast! I asked Murayama who this could be. He told us that this was one of the monks from a nearby Buddhist monastery, probably going to visit the shrine at Miyajima. Never had I seen such a person, never had I felt such a presence. I had to know more about him and how he got that way. That day was the day I realized that I must ~~find~~ study Buddhism.

Seepaint.wp6 96/02/23 Disk: Last Pisces

ON QUESTIONS AND ANSWERS

There seem to be two distinct levels for the question-answer dialectic. The first of these is the 'school marm' or 'sheep' level. For each question asked there is one right answer. What is 2 + 2? The right answer, and only acceptable answer is 4. This is the level of those who have the answers and want them universally accepted. It is the level of those teaching young children, of those fearful of ambiguity and doubt, of those seeking to control others, and of fundamentalists of all descriptions,

what about 2^2, or 2 as vector

But there is a second level of question. The level of those doing research, those asking questions whose answer is not known, of those seeking truth. For these it is allowed that there may be a unique explicit answer to the question, or that there may be many valid answers, or that there be no answer at all. It may be the wrong question. As Pauli put it, "The answer may not even be wrong". As Zwicky put it, "Our task is not to find the answer but to find all the possible answers."

Here the distinction between mystery and mysterium comes in. (see scraps 1993#39 and #43) A mystery is an unexplored area which will yield one correct map. A mysterium is an unexplored region which will yield many correct maps, some of which may be consistent some non-consistent. It is not possible in advance to know whether we are dealing with a mystery or a mysterium. To assume a mystery is to truncate the world, to deliver ourselves into the sheep pen. The full richness of the world and of ourselves can only be attained through the assumption at the outset that we are dealing with a mysterium. What about 2+2 then? Eddington said we have learned a great deal about two, we have yet to explore plus.

Yet, few can move into the second level approach. Freud said that the ability to tolerate ambiguity and uncertainty is a measure of maturity. Philosophers of necessity must operate at the second level. Scientists must be able to operate at both levels. The great tragedy is that theologians and clergy, who more than any others should operate at the second level, have chosen rigidly to remain at the first level.

In science the answer to a question often leads to more questions - a tree
Such a tree must not be garbarized with a set of facets of a mysterium
i.e. tree ≠ {facets}

QUESTANS.WPG 96/02/24

A MOTIVATIONAL SCALA

People are motivated to participate in or avoid certain behavior patterns according as to the relative pressures of the factors in the following scala:

LEVEL	FACTORS
BIOLOGICAL	PAIN / PLEASURE
PSYCHOLOGICAL	INTERESTING / UNINTERESTING
SOCIETAL	IMPORTANT / UNIMPORTANT
PLANETARY GLOBAL	VALID / INVALID
COSMIC ABSOLUTE	TRUE / FALSE

- On the biological level there is freedom to choose between pain or pleasure, but without being overruled by excessive pressure from one of the higher levels, people will invariably seek to avoid pain. In fact the avoidance of pain is usually regarded as a safe guide in selecting a course of action.
- On the next two levels, the psychological and societal, there is not only choice but also relative impunity of choice. We are each free to choose what we find to be interesting, but we may not be so sure that we were free in determining what turned out to be interesting to us in the first place. On the societal level cultures determine what is important by consensus. However, there are usually penalties associated with an individual's ignoring the society's selection of what is to be taken as important. That is, there are penalties incurred when an individual opts for behavior that goes against the society's values. For whenever there is choice values are involved, and if an individual or society has choices they will construct a scala of values to guide their choices. An individual is fortunate and likely to be successful if it turns out his/her personal interests and society's views of what is important coincide.
- The fourth level, what is valid or invalid is trans-cultural, not subject to choice. As societal is contextual to individual, planetary or global is contextual to societal, and ultimately context overrules content in both cases. There may be, however, choice in selecting to adopt an invalid procedure instead of a valid one, but the whistle is immediately blown and sooner or later the boom is lowered.
- The above four levels are each bounded in space and time. The fifth level, true/false, transcends all limits of space and time. It is that which is valid in all places at all times. Thus truth, in this sense, is unknowable. It can only be approached as larger and larger realms of space and time are experienced. And Truth with capital T lies beyond space and time. It is absolute, eternal, and ubiquitous. Whether Truth exists, we do not know.

can

MOTSCALA.WPG 96/02/26

Also ∃ a parallel scala

- INDIVIDUAL PAIN / PLEASURE
- SPECIES PRINCIPLE OF PLENITUDE [NUMBER]
- ECOLOGY PRINCIPLE OF PLENITUDE [VARIETY]

It may be that branching will never be explained on a cellular level, but has to do with the "meta-genes" in the context.

- PLANET MANAGEMENT and SUTAINMENT
  Preserving bounds e.g. temperature
- BEYOND ?

AND Another Scala

- INDIVIDUAL MIND
  SENSORY EXPERIENCE → MEMORY
  Retrival per recollection
- SHARED CULTURAL MIND
  Collective unconscious
  Retrieval per recognition
- Planetary Mind
  Noösphere
  Access & Retrieval through developed (per practice) recognition
- Cosmic Mind
  Practice → Access

Some ontological alternatives:
The foregoing scala is organized in accordance with conventional western ontology, what is valid is not subject to choice. But it could be that the universe is multi-faceted and we select which facet to exist in. In such a case what is valid could be said to be subject to choice. Perhaps only to one-time choice. Or a yet different ontology would say perhaps to continuous choice, i.e. we create reality at every moment of time.

Some behavioral alternatives:
The foregoing scala is predicated on individual or collective motivations and initiatives. But there is also a scala based on responses. Behavior in response to pulls or calls. Behavior forcing itself upon us. There is also what lies behind pain, interest, importance and validity. Such matters as ego, curiosity , intuition, hunch, values, and recognition lurk behind the scala.

Some questions:
- Are values personal or societal? Are Virtues cultural or global (valid)?
- Is the created or invented cultural and the discovered global (valid)?

Principles	Global	Diachronic
Virtues	Cultural	Verge
Value	Societal	Synchronic

The Scale As Used in the GinkgoLeaf Bookstore

What's Interesting
This category depends on temperament and personality type. The Ginkgo stocks titles of how to discover your own type and those of the people you work and live with. You can even take a personality profile, order a birth chart, arrange for an I-Ching reading, a Tarot card session or schedule a nutritional consultation

What's Important
This category signifies resources that hold society together while transformations in individuals proceed. It includes ecology, health, nourishment and dynamics of change. The Ginkgo Leaf not only stocks books, videos and magazines in this category but it also stocks herbs, homeopathic remedies, macrobiotic supplies and natural foods.

What's Valid
This category transcends persons, societies, and current events. It includes the timeless wisdom of ancient texts as well as the discoveries of modern science. With the ever increasing publication of newly discovered ancient texts and breakthroughs in science and technology, our selection criteria can help guide you through the maze

96/03/02

See 96 #18

THE PROFESSION OF SIGNIFICATOR

Communication has become the central activity of the information age. While most of the emphasis in this post industrial era has been placed on communication technology, some has been given to the players (which corporations win and which lose), the CEO's and their personalities, the regulations and deregulations, and some even to such matters as privacy and filtering what goes to children. With the exception of what is suitable for children, little emphasis in the information age has been paid to the **quality** of the communicated messages. This largely, at least in this country, in reverence to the First Amendment. Anyone who thinks he wants to say something can get a home page and set up a message booth. This is the meaning of freedom of speech under the new technology.

Communication can be broken down into the operations of 1) message composition, 2) message transmission and delivery, and 3) message consumption. For millennia there have been numerous senders and receivers with the messages mostly originating with one sender and destined to one recipient. However, with the beginning of printing the modes of one sender to many recipients and many senders to many recipients became common. As the number of one to many and many to many messages proliferated with new technological modes of transmission and delivery, the recipients became inundated with junk messages. Spam

As an aside to interject here, it is interesting to note that at the time when Glasnost was releasing the Soviet peoples from decades of restricted speech and expression, when asked how he felt about this new freedom, the poet Yevtushenko said that he was worried that he would have something worthwhile to say. Now the quality of information moving back and forth would not be of great concern if the quantity were of tractable proportions. But with the billions of bits being spewed into the internet daily we can wish that everyone uploading were of Yevtushenko's turn of mind. With no a priori restrictions on quality and with unlimited quantity, some filtering procedures for converting the overwhelming bit and byte noise into meaningful information are urgently needed. A new profession is envisioned to take care of this need. We can call this filtering operation **"signification"** and those who practice it **"significators".**

Shannon's data → information

The tasks of the significator include message validation, message interpretation, and message signification.

- The first of these tasks, validation, is two level: Checking whether the received message is the same as the sent message, which is already being done automatically, and secondly, checking whether the original message is true, which is usually done today only in special cases by such people as investigative reporters. The significator must take on this role as part of a signification contract.

  e.g. counting votes
- The interpretation task is to explain the message in terms that can be comprehended by the receiver. In other words give the receiver a code book for decoding the message. We can say that this task is largely being done today by the educational establishment, but in increasing instances the need for supplementary interpretation arises. Again an assignment for the significator under a signification contract.
- The third task is the heart of the requirement, the filtering from the plethora of messages those of relevance at the time to the needs of the user. But this is exactly Shannon's original definition of information.

SIGNPROF
~~MESSPROC~~.WP6 96/02/26 revised 96/03/04

People can quickly do their own significating on the level of pain/pleasure and on the level of interestin/boring. The role of significator comes into play and focuses largely on what is important. This both 'downward' to the individual and contextwise (contentwise) to the Globe

So importance is three level:
- for the individual in the context of society or culture
- for the society according to its own value
- for the society for its harmonizing with its global context

News and signification

filters of signification

(Y)

APHORISMS RE ILLUSION

MAN MUST RECOGNIZE THAT HE IS FAR REMOVED FROM REALITY. --DEMOCRITUS

COLOR, SWEETNESS, BITTERNESS ARE ILLUSORY, ONLY ATOMS AND THE VOID ARE REAL. --DEMOCRITUS

NOTE: THE VOID IS REAL

THERE REMAINS THE FINAL REFLECTION, HOW SHALLOW, PUNY AND IMPERFECT ARE EFFORTS TO SOUND THE DEPTHS IN THE NATURE OF THINGS. IN PHILOSOPHICAL DISCUSSIONS, THE MEREST HINT OF DOGMATIC CERTAINTY AS TO FINALITY OF STATEMENT IS AN EXHIBITION OF FOLLY.
--WHITEHEAD

"REALITY IS THAT ENSEMBLE OF PERCEIVED EVENTS WHICH AN INDIVIDUAL HAS LEARNED TO RECOGNIZE AS OCCURRING OUTSIDE HIMSELF." --ANON

PHYSICAL REALITY IS NOT ACCESSIBLE PER VISUALIZATIONS. ONLY ABSTRACT MATHEMATICAL RELATIONS ARE CAPABLE OF REPRESENTING PHYSICAL EVENTS. --R.P. KROON

SPIRITUAL REALITY IS NOT ACCESSIBLE PER VISUALIZATIONS, ONLY ABSTRACT SYMBOLIC RELATIONS ARE CAPABLE OF REPRESENTING SPIRITUAL 'EVENTS' L.K.

THE SEPARATION OF TIME FROM SPACE IS ARBITRARY.
--MAX BORN And so is the merge

IF ALL MATERIAL THINGS DISAPPEARED OUT OF THE UNIVERSE, CLASSICAL PHYSICS SAYS THAT SPACE AND TIME WOULD REMAIN. RELATIVITY SAYS THAT TIME AND SPACE DISAPPEAR TOGETHER WITH THE THINGS. --EINSTEIN

TIME HAS COME INTO BEING ALONG WITH THE UNIVERSE.
--PLATO

THE NATURE OF THINGS IS NUMBER.
--PYTHAGORAS

~~ILLUSAPH.WPG~~ ~~9/10/93~~

(9)

THE GREAT ARCHITECT OF THE UNIVERSE NOW BEGINS TO APPEAR AS A PURE MATHEMATICIAN. --JAMES JEANS

GOD IS NOT A MATHEMATICIAN; GOD IS MATHEMATICS.
--LI KIANG

OUR KNOWLEDGE OF PHYSICS IS MATHEMATICAL ; IT IS MATHEMATICAL BECAUSE NO NON-MATHEMATICAL PROPERTIES OF THE PHYSICAL WORLD CAN BE INFERRED FROM PERCEPTION. --BERTRAND RUSSELL

RELATIVITY AND WAVE MECHANICS CAN ONLY DRAW A PURELY MATHEMATICAL PICTURE. --JAKI

ABSTRACT MATHEMATICAL CONSTRUCTS SEEM TO BE TODAY THE ONLY WAY, NOT TO REACH, BUT TO REPRESENT THE TRANSPHENOMENAL PLANE. --CAPEK

THE ONLY 'REAL' PHYSICAL CONCEPTS ARE NUMERICAL.
--R.P. KROON

ANY PHYSICAL CONCEPTS OTHER THAN NUMERICAL ARE ONLY AN ILLUSION. --QUELON

THE SPACE-TIME FRAME IS SOMETHING OVERLAID BY THE OBSERVER ON THE EXTERNAL WORLD. WE MUST ENDEAVOR NOT TO LOSE SIGHT OF ITS FICTITIOUS AND ARBITRARY NATURE. --EDDINGTON

SPACE AND TIME ARE GRANULAR, NOT CONTINUOUS.
--POINCARE

GOD MADE THE INTEGERS; ALL ELSE IS THE WORK OF MAN.
--KRONECKER

EVERY QUANTITATIVE OBSERVATION, EVERY OBSERVATION MAKING USE OF MEASUREMENT IS, BY ITS NATURE, DISCONTINUOUS. --SCHRODINGER

(Y)

SPACE AND TIME ARE THE ONLY ASSUMED CONTINUUMS IN PRESENT DAY SCIENCE. --R.P. KROON

THE GREAT TRIUMPHS OF PHYSICAL SCIENCE ARE THE CONSEQUENCE OF THE FORTUNATE INTERPLAY BETWEEN PHYSICAL CONCEPTS AND MATHEMATICAL LAWS.
--R.P. KROON

THE TWO GREAT ILLUSIONS ARE LOCALIZATION OF MIND AND ENTIFICATION OF SELF.
--LI KIANG

The Fallacy of the Localized Mind

This localization of mind is perhaps the main fallacy in the idea that mind will be understood only in the circuits of the brain, analogous to a computer. Such insistence on the body as the sole locus of mind is a subtle return of the soul theory because it insists on the centeredness of thought and perception. Of course, it is more nihilistic than eternalistic in that it is usually agreed that the body is impermanent. Nevertheless, the insistence on trying to interpret perception in terms of a central locus is as anthropocentric as was the earth-centered model of the world before Copernicus and Galileo. And there seems to be no good grounds for it other than the personal wish to be at the center of things. We might note that among Bateson's six criteria of mental process, there is not one about a center. We believe that awareness is in our body because our perceptions seem to terminate there and because if we move from room to room our perceptions change while we feel they are in the same body. Thus we give primacy to the clear and distinct highlights of our immediate perceptions. But what of the awareness that there is something at all? We may question the assumption that the totality of awareness is located in the body. But if awareness is not localized in the body, is it localized in space-time at all? What could it mean to say that awareness is not localized in space-time? We should perhaps distinguish between awareness which is not localized and self-consciousness which is.

There are other possible models of mind which seem to accord with what we know just as well as does the computer model. We could model the brain more on the lines of a television, than a video player. Suppose an intelligent person completely unfamiliar with twentieth century technology and knowing nothing about electromagnetic waves were to examine functioning TV and video machines side by side. He or she would think that in *both* cases the picture and sound were created entirely within the machine. If we then told him that the TV set but not the video machine was picking up invisible messages from space, he would think either that we were referring to one of his gods, or that we were crazy. In this model the brain is one part of many loops which are thought or perception, and include all of the environment.

PERCEIVING ORDINARY MAGIC
JEREMY HAYWARD P215

Then how are we to regard thoughts and emotions, love and compassion, joy and beauty? One point of view is that it is only our lack of imagination which has prevented us from defining corresponding quantitative constructs, instead of considering them to be qualitative. The ultimate consequence of this approach is to regard living organisms, including humans, as complicated physico-chemical machines. In the extreme form, this leads to the notion that 'mental' activities are by-products of physical brains.

The dilemma, it seems, arises from the belief in a closed physical world of things. When we accept instead the notion that the physical world is a mathematical order, the dilemma is removed. Instead of abstract thought pushing concrete matter around,

MAYWARD2.WP6 96/03/03

Mind is not an isolated possession

The Levels of Mind:

Personal - Private

Collective [Unconscious] - Jung · Freud

Noösphere - Teilhard de Chardin

Cosmic

I 2 connection levels communication and "subtle"

We acquire access to the higher minds
outwardly, per communication, learning
inwardly, per meditation, developing psychic power

What do brains do in groups?

Why do we very naturally, and quite early in the game, develop computer networking. Doesn't this reflect our ~~unrecognizing~~ that minds are interconnected?

What was the great step forward in Buddhism:
The Mahayana step: Concern for all sentient beings.
Isolated personal enlightenment wasn't meaningful.

the interaction may be viewed as that between the qualitative and the quantitative. We can then think of the qualitative (the mental, the spiritual) and the quantitative (the physical, the material) co-existing as facets of the living world. It may be significant to note that both our language and our music are a harmonious blend of the qualitative and the quantitative.

The idea of a mathematical order to the physical world may thus open up new horizons for a more comprehensive philosophy of the living universe.

R. P. KROON MAIN CURRENTS V31 #3

Schools:

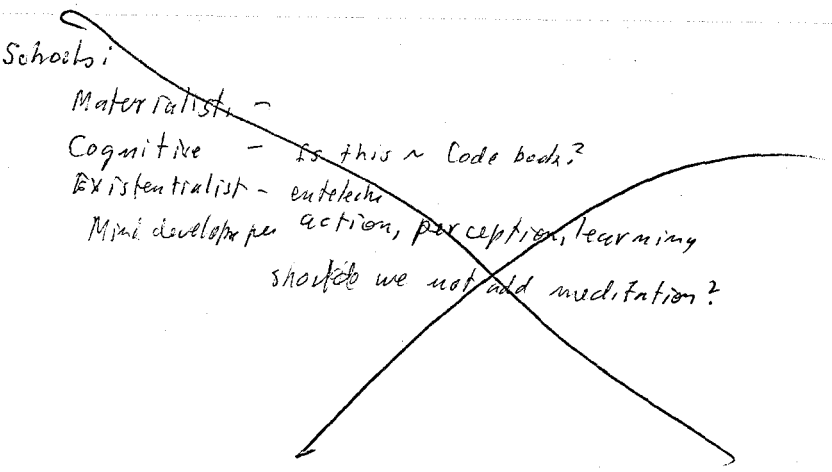
Materialist -

Cognitive - Is this ~ Code body?

Existentialist - entelechy

Mini developmental action, perception, learning

should we not add meditation?



NEWCHON3.WP6 March 11, 1996 Rev, April 11, 1996

EXPLORING CHON

Aristotle held that time was an inference of **motion.** But there appears to be a species of time that is not derived from motion. This time is associated with the **density** of matter and manifests as a zeitgeber that governs local clock rates. Its period is inversely proportional to the square root of the mass density. A familiar example is the Schuster Period, a bound on the period of an earth orbiting satellite when only gravitational and inertial forces are acting. This period of approximately 84 minutes is numerically related to the mean density of the earth and to the universal gravitational constant,G. In general the lower limit to orbiting periods is given by,

(1) $$\tau = 2\pi\sqrt{\frac{R^3}{GM}}$$

Where R is a size parameter (radius) and M is a mass parameter. It is seen that equation (1) is a bounding case of Kepler's third law. For a spherical body, this boundary time, τ, in terms of the mean density ρ, is given by,

(2) $$\tau = \sqrt{\frac{3\pi}{G\rho}}$$

Equations (1) and (2) are usually applied to astronomical bodies and since gravity is a force weaker than other forces by some 40 orders of magnitude, it seems quite inappropriate that these equations contain anything of significance for bodies where gravity plays no detectable role, in particular for micro objects such as atoms and sub-atomic particles. There is, however, nothing known that precludes the universal applicability of these equations. At first thought, when applied to objects on the atomic level, it would seem the results would be insignificantly small. Remembering, though, that we are dealing with time, not size or force, this is not the case. Coulomb times are of the order of 10^{-16} seconds. If the ratio of force strengths between coulomb and gravitatonal forces is of the order of 10^{40} then the ratio of gravitational times to coulomb times must be of the order of 10^{20} leading to atomic graviational times of the order of 10^{4} seconds.

As an example, take for size the Bohr radius, a_o, and for mass the proton mass, m_p. The time τ_H, turns out to be almost exactly 2 hours! Explicitly,

(3) $$\tau_H = 2\Pi\sqrt{\frac{a_o^3}{Gm_p}} = 7239.94\text{sec} = 2\textit{hours}\ 40\textit{seconds}$$

Another example is the Schuster time for an electron. Using r_e, the electron radius and m_e, the electron mass, the Schuster period is given by,

(4) $$\tau_e = 2\Pi\sqrt{\frac{r_e^3}{Gm_e}} = 0.121\text{sec}$$

which is about one-eighth of a second, again in the time frame of daily experience as this is an important time interval for human visual perceptions.

A third value of possible physiological interest is the time given by the Schuster period of the proton:

(5) $$\tau_p = 2\Pi\sqrt{\frac{r_e^3}{Gm_p}} = 2.813\ \textit{millisec}$$

The time values given in equations 3), 4), and 5), since they are present in every atom or organic molecule, may play the role of zeitgebers in physiological processes.

Noting the near coincidence of the hydrogen gravitational time of two hours with twice the culturally employed time unit derived from the earth's rotation period, we are led to surmise that micro gravitational times may play some hitherto unsuspected role. On the basis of the result for atomic hydrogen it seems relevant to go further and inquire how equation(1) might be applied to other atoms.

The correct value to be used for mass in equation(1) is likely to be a function of the atomic weight of the atom. But the value to be used for the size (radius) in equation(1) is uncertain as we are dealing with gravitational rather than coulomb effects.

One approach is to note that the relation between density and mass for some larger bodies, planets, stars, etc., is that the density is roughly proportional to the reciprocal of the mass,

$$\rho \propto M^{-1}.$$

Alternate Assumption 1] We provisionally assume the same for atoms, that the density varies inversely with the mass. This is equivalent to $M^2 \propto R^3$. Substituting $(KGM)^2$ for R^3 in equation(1), we get,

(6) $$\tau = 2\pi\sqrt{\frac{(KGM)^2}{GM}} = 2\pi K^{3/2}\sqrt{GM}$$

That is, the period τ is approximately proportional to the square root of the mass. This leads to,

(7) $$\frac{\tau}{\tau_H} = \frac{2\pi K^{3/2}\sqrt{GM}}{2\pi K^{3/2}\sqrt{Gm_p}} = \frac{\sqrt{M}}{\sqrt{m_p}} = \sqrt{A}$$

where A is the atomic weight.
Using this result, $\tau_A = \tau_H\sqrt{A}$, we can construct the following table:

ELEMENT	ATOMIC WEIGHT	$\sqrt{A}$	SCHUSTER PERIOD
HYDROGEN	1.0080	1	2hr 0m 40sec = 1/12 day
CARBON	12.0112	3.47	6.98 hr
NITROGEN	14.0067	3.74	7.52 hr
OXYGEN	15.9994	4	8.04 hr

The values in the table are within less than half of a percent of 7 hours for carbon, 7.5 hours for nitrogen, and 8 hours for oxygen. These periods are closely commensurate with the rotation period of the earth as given in the second table.

ATOMIC COMBINATIONS	PERIODS
$24\tau_C$ = 168hr	7 days
$16\tau_N$ = 120hr	5 days
$3\tau_O$ = 24hr	1 day

It should be noted that the elements most abundant in and important to living organisms give rise to periods nearly commensurate with the earth's rotaton. Are the periods of these atoms in animal and human cells the zeitgebers for circadian rhythms?

A second possible approach to the question of the proper radius to employ for gravitational times is to assume that all atoms in ordinary state have the same gravitational potential. This assumption is equivalent to: size is proportional to mass.

Alternate Assumption 2] Assume for atoms in organic molecules that size is proportional to mass, R = KGM. Substituting KGM for R in equation 1) gives,

(8) $$\tau = 2\pi\sqrt{\frac{(KGM)^3}{GM}} = 2\pi K^{3/2}GM$$

That is, the period τ for ordinary matter is closely proportional to the mass, and since $\tau_H = 2\pi K^{3/2}Gm_p$,

(9) $$\frac{\tau}{\tau_H} = \frac{2\pi K^{3/2}GM}{2\pi K^{3/2}Gm_p} = \frac{M}{m_p} = A$$

where A is the atomic weight. Using this result, $\tau_A = A\tau_H$, we can construct the following table:

ELEMENT	ATOMIC WEIGHT	SCHUSTER PERIOD
HYDROGEN	1.0080	2hr 0m 40sec = 1/12 day
CARBON	12.0112	24hr 9m 20sec = 1 day
NITROGEN	14.0067	28hr 10m 7sec = 7/6 day
OXYGEN	15.9994	32hr 10m 33sec = 4/3 day
POTASSIUM	39.102	78hr 38m 16sec = 13/4 day

Again the values in the table are (with the exception of potassium) close approximations to periods commensurate to common astronomical periods. Resulting values in days are given in the following table.

ATOMIC COMBINATIONS	PERIODS
$1\tau_C = 12\tau_H$	τ_{CH} = 1 day
$7\tau_{CH} = 6\tau_N$	τ_{CHN} = 7 days
$4\tau_{CHN} = 7\tau_O$	τ_{CHON} = 28 days
$13\tau_{CHON} = 112\tau_K$	τ_{CHONK} = 364 days *

Again we note that the elements most abundant in and important to living organisms give rise to the common periods of time derived from the earth's motions. *[More precisely, 366 1/3 days.]

See 1996#24 and many others on 2-times

WHY IS EVERYTHING SPEEDING UP ?

In this essay we will find it useful to make a distinction between **dimensionality** and **dimension.** Physicists are usually concerned with dimensionalities such as mass M, length L, and time T. We here specify that dimensionalities become dimensions through the operation of measurement; that is, through the operation of comparing two quantities of the same dimensionality one of which is a standard which defines a unit. While a measurement, the ratio of two quantities of the same dimensionality, is actually a pure number, having no dimensionality, we proceed to assign a unit to this pure number restoring its dimensionality and calling it a dimension. Time, for example, will be the ratio of two durations, one of which is a standard, such as the rotation period of the earth, in which case the resulting ratio, a pure number, will be labeled so many days. Thus the ratio of two dimensionalities is a dimension and the ratio of two dimensions is a pure number.

Measurement, the comparison of two quantities, one being a standard providing a unit, is sort of a special case of figure and ground. This in the sense that ground is a standard that provides, not a unit, but meaningfulness to the figure. We might even say that it requires both figure and ground for there to be existence itself. Here we want to consider some possibilities of placing two kinds of time in a figure/ground relationship.

Let us assume that what we call time is really a ratio of two time dimensionalities, t--Aristotle's time derived from motion, and τ--Kepler's time derived from density. These two times are related as figure and ground. That is what we experience as time is really the ratio t/τ. The τ time provides a cosmic standard interval against which various local t times are configured.

Aristotle's time t is given by

horizontal, motion

$$t = \frac{d}{D}\,\frac{L}{C}$$

Kepler's time τ is given by

ground, density

$$\tau = 2\pi\frac{L^{3/2}}{\sqrt{GM}}$$

Dividing, we find for fixed M,

$$\frac{t}{\tau} \propto \frac{1}{\sqrt{L^5}} = \frac{C\sqrt{GM}}{2\pi L^{5/2}}$$

TIMEFGR.WPG 96/03/14

Metaphor: Ground time = clock time (atomic, CHON)
Figure time = time created by slow motion or time-lapse camera } appear granular

Also in Music Figure: whole, half, quarter ... notes
Ground: Allegro, Largo ... legato

We must recall Zeno here. His paradox resembles moving into a black hole.

electronic Music
compose/Creation-Synthesis
or
performance

$\rho\uparrow$ may be due to $M\uparrow$, $R\downarrow$ or both
If ρ oscillates, there may have been an interval allowing one to be older than their mother.

Music: Figure Time: The horizontal relations between notes
Ground Time: n beats/minute

τ and t represent intervals

$T = \frac{t}{\tau}$

t is clock time or projection time
τ is the rate at which the camera was run when making the film

normal $t = \tau$

slowmotion ~~$\tau < t$~~ $\tau < t$ ~~t~~ i.e. exposures at shorter intervals than projection, appears slow because many τ's in 1 t
time lapse ~~t~~ $\tau > t$

When $\tau > t$ many τ's in each t
∴ clouds etc. change rapidly
seasons

When $T < 1$ time lapse
$T > 1$ slow motion

This ratio tells us that if L increases the apparent interval between two events will decrease. For an expanding universe as a whole, L, the measure of the size of the universe is increasing, hence the ground period is increasing and this causes the figure period to appear to decrease. Hence everything appears to speed up. On the other hand in the neighborhood of a black hole L is decreasing and the local or figure time will ~~de~~increase. As one moves into a black hole everything slows down.

Expressing the time ratio in terms of the density, ρ, we have,

$$T = \frac{t}{\tau} \propto \frac{\sqrt{\rho}}{L}$$

From this equation we might have a resolution of the, "You can't be older than your mother", paradox. If L is the cosmic expansion, then the figure time is decreasing everywhere, but if in addition we are in a high density locality, such as a globular star cluster, the figure time will be even faster. Physical processes would run more rapidly and stellar evolution could take place in shorter times. So, "You can't be older than your mother", is true only if you and your mother have the same clock.

Redo
This is in error

If we use proper time $T = 1$

Synthesize to perform

then for $\rho\uparrow$ $T > 1$ slow motion in appearance
but much happening between frames
i.e. many events

Define: frame: recorded — frame interval $= t$ → rate as frequency $\frac{1}{t} = f$
event: happened — event interval $= \tau$ — $\frac{1}{\tau} = \nu$

$T = \frac{t}{\tau}$

slow motion: many frames per event ~~t<~~ $t < \tau$, $T < 1$
time lapse: many events between frames $t > \tau$, $T > 1$

Slow motion $N t = \tau$ $N > 1$ $T = \frac{t}{\tau} < 1$
Time lapse $n \tau = t$ $n > 1$ $T = \frac{t}{\tau} > 1$ $\rho\uparrow$

i.e. in a high density domain
$T > 1$ many events occur
~~fear~~ proper time (projection rate) clock beat, $t = 1$

If $\rho\downarrow$, then $T < 1$ and proper time clock beat $t = 1$
and events appear in slow motion
⇒ less time to get anything done
erroneously ⇒ all has been speeded up

96/08/12

Either the universe is expanding or everything is speeding up.
i.e. the great drummer to whose beat all things march is beating faster.

Looking back in time, it is noted that frequencies are red shifted, the further, the greater the shift. If these shifts are interpreted as doppler shifts, then, as is the conventional assumption, the universe is expanding.

Drummer beating faster Hypothesis

Alternatively, physical time is speeding up relative to absolute time. or Δt today < Δt in the past
freq today > freq in past

Assume that $\Delta\tau \propto \bar{\rho}^{-1/2}$ where $\bar{\rho}$ is the mean density of the universe.

Then $f \propto \bar{\rho}^{+1/2}$ and if $f\uparrow$, then $\rho\uparrow$

We could give causality the direction

$$\rho\uparrow \Rightarrow f\uparrow$$

Things are speeding up because the mean density is increasing. (certainly true locally)

Density is ↑ because more matter is created but quantized redshifts ⇒ punctuated creation as observed in fossil record

---

Expanding Universe Hypothesis

In the expanding universe interpretation $\bar{\rho}$ must be decreasing
$\therefore$ $f\downarrow$ and $\tau\uparrow$
f was larger in the past
but this is contrary to what is observed.

$\therefore$ $\tau = \frac{2\pi R^{3/2}}{\sqrt{GM}}$, (Kepler's 3° Law)
is not universally applicable.

- What about the question of being older than your mother?
- What about the 2.3K background?
  If $f\uparrow$, then past temp lower
  The 2.3K background is not the residue of a big bang - the universe was thermally cooler

This interpretation has difficulty with the Einstein shift
- Black Holes
  ρ very large
  $\therefore$ f high
  But we observe f lower
  [the Einstein shift]
  $\rho > \bar{\rho}$
  $f > \bar{f}$
  ratio ⇒ ?

$\frac{\rho_0}{\bar{\rho}} > 1$, $\frac{f_0}{\bar{f}} > 1$

seen from outside vs measured locally
$\rho_0 = \rho$ local
If $\rho_0 > \bar{\rho}$
$f_0 > \bar{f}$
we see slower rate elsewhere

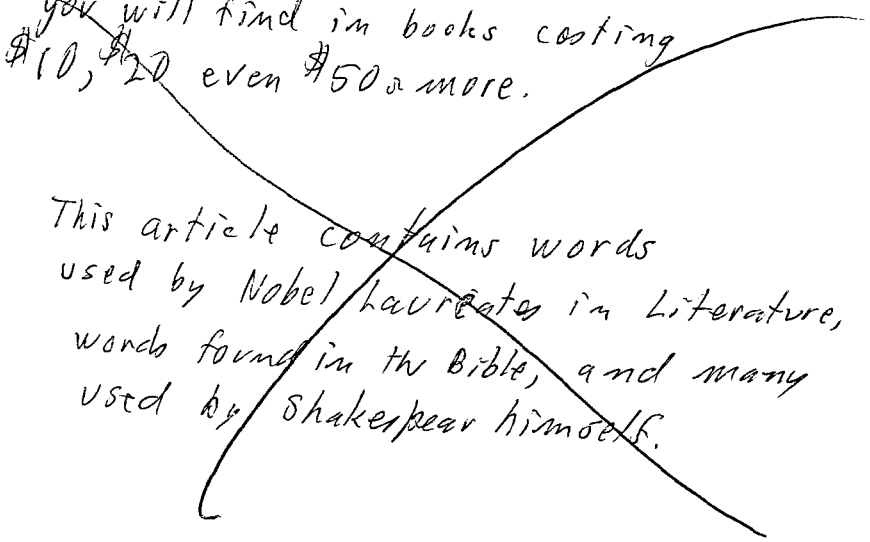
If $\rho_0 < \bar{\rho}$
$\frac{f_0}{\bar{f}} \gtrless$?

Local regions of higher density had a faster clock rate
Physical processes took place in a shorter time than if governed solely by $\bar{\rho}$
local clocks obey the $\Delta\tau \propto \rho^{-1/2}$ rule
while the universe itself operates with the $\Delta\tau \propto \bar{\rho}^{-1/2}$ rule

Local time rate is measured against the standard universal $\bar{\rho}$ rate!

THE FIRST ONE HUNDRED NUMBERS LISTED IN ALPHABETICAL ORDER FOR QUICK AND EASY REFERENCE

EIGHT	08
EIGHTEEN	18
EIGHTY	80
EIGHTY EIGHT	88
EIGHTY FIVE	85
EIGHTY FOUR	84
EIGHTY NINE	89
EIGHTY ONE	81
EIGHTY SEVEN	87
EIGHTY SIX	86
EIGHTY THREE	83
EIGHTY TWO	82
ELEVEN	11
FIFTEEN	15
FIFTY	50
FIFTY EIGHT	58
FIFTY FIVE	55
FIFTY FOUR	54
FIFTY NINE	59
FIFTY ONE	51
FIFTY SEVEN	57
FIFTY SIX	56
FIFTY THREE	53
FIFTY TWO	52
FIVE	05
FORTY	40
FORTY EIGHT	48
FORTY FIVE	45
FORTY FOUR	44
FORTY NINE	49
FORTY ONE	41
FORTY SEVEN	47
FORTY SIX	46
FORTY THREE	43
FORTY TWO	42
FOUR	04
FOURTEEN	14
NINE	09
NINETEEN	19
NINETY	90
NINETY EIGHT	98
NINETY FIVE	95
NINETY FOUR	94
NINETY NINE	99
NINETY ONE	91
NINETY SEVEN	97
NINETY SIX	96
NINETY THREE	93
NINETY TWO	92
ONE	01
ONE HUNDRED	100
SEVEN	07
SEVENTEEN	17
SEVENTY	70
SEVENTY EIGHT	78
SEVENTY FIVE	75
SEVENTY FOUR	74
SEVENTY NINE	79
SEVENTY ONE	71
SEVENTY SEVEN	77
SEVENTY SIX	76
SEVENTY THREE	73
SEVENTY TWO	72
SIX	06
SIXTEEN	16
SIXTY	60
SIXTY EIGHT	68
SIXTY FIVE	65
SIXTY FOUR	64
SIXTY NINE	69
SIXTY ONE	61
SIXTY SEVEN	67
SIXTY SIX	66
SIXTY THREE	63
SIXTY TWO	62
TEN	10
THIRTEEN	13
THIRTY	30
THIRTY EIGHT	38
THIRTY FIVE	35
THIRTY FOUR	34
THIRTY NINE	39
THIRTY ONE	31
THIRTY SEVEN	37
THIRTY SIX	36
THIRTY THREE	33
THIRTY TWO	32
THREE	03
TWELVE	12
TWENTY	20
TWENTY EIGHT	28
TWENTY FIVE	25
TWENTY FOUR	24
TWENTY NINE	29
TWENTY ONE	21
TWENTY SEVEN	27
TWENTY SIX	26
TWENTY THREE	23
TWENTY TWO	22
TWO	02


This book contains the same words you will find in books costing $10, $20 even $50 & more.
This article contains words used by Nobel laureates in Literature, words found in the Bible, and many used by Shakespear himself.

In Memorium

Hannes Alfven		Astrophysicist
b April 30, 1908	d April 2, 1995	
Subrahmanyan Chandrasekhar		Astrophysicist
b October 19, 1910	d August 21, 1995	
Gerard Henri de Vaucouleurs		Astronomer
b April 25, 1918	d October 7, 1995	
William Alfred Fowler		Astrophysicist
b August 9, 1911	d March 14, 1995	
Raghavan Narasimhan Iyer		Philosopher
b March 10, 1930	d June 20, 1995	

SOME OBSERVATIONS CONCERNING PRESENT TIMES

ON SIGNIFICATION:

In modern times our problem has not been in conveying information. It has been in providing the original knowledge and in deciding what is good, bad, or purely fraudulent. That problem remains. So, I think, it will.

The problem will still be finding the relevant and sorting out the true from the false. Our problem, to repeat, is not a shortage of information or in its transfer. It is deciding what is useful and what is right.

~John Kenneth Galbraith
From the Encyclopedia Britannica Book of the Year 1996 p10

ON UNEMPLOYMENT:

In the modern economy and polity inflation is more feared than unemployment, and a reserve army of the unemployed, to use an old Marxian phrase, is now seen as a protection against price increases.

Ibid p9

From article on English Literature on p227 of the same year book.

Despite a marketplace in turbulent transition, with more and more publishers' advances rising in amount and going to fewer and fewer writers and with large chain stores squeezing out venerable independent bookshops around the nation and these same chains seeming to narrow the range and depth of books available on their shelves, the quality of fiction in the U.S. in 1995 never seemed higher.

We note the same tendency in the stock market with larger and larger investment funds being controlled by fewer and fewer people taking the market from a normal statistical system to one governed by brownian motions. - AGW

GALBRATH.WPG 96/03/16

Six Degrees of Separation

A game of one-up-manship popular a few years ago was to be able, through people you knew, to reach the President of the United States in fewer phone calls than anyone else who was present. One fellow knew someone who was an intimate of the President, he thus claimed that he could reach the President in two phone calls--1) to his friend, 2) his friend to the President. *Hey, since we know you that puts us three phone calls from the President.* So it went..

It is commonly claimed that any two people on the planet are six or fewer degrees of separation from each other (i.e. six or less phone calls in the above sense). This seems to be a reasonable surmise as illustrated in the following two tables:

TABLE 1. GLOBAL POPULATION = 5 BILLION

DEGREE =	1	2	3	4	5	6	7
N =	5 BILLION	71,000	1700	266	87	41	24

TABLE 2. GLOBAL POPULATION = 6 BILLION

DEGREE =	1	2	3	4	5	6	7
N =	6 BILLION	78,000	1800	278	90	42	25

In these tables N stands for the average number of people one knows or the number of phone calls each person in the chain would have to make in order to reach everyone on earth. Thus, if the world population is six billion, in order to reach everyone with six degrees, each person would have to make 42 phone calls. With five degrees, 90 phone calls. etc.

The tables are prepared using the equation, $N^d = P$, where P is the global population and d is the number of degrees. N is found by evaluating,

$$N = antilog(logP/d)$$

6 dogsep. WPG 96/03/31

Justification $N^d \doteq P$

$$x + x^2 + x^3 + \cdots + x^{r-1} + x^r = \Sigma(r)$$
$$x^2 + x^3 + x^4 + \cdots + x^r + x^{r+1} = x\,\Sigma(r)$$

$$\Sigma(r)(x-1) = x^{r+1} - x$$
$$\Sigma(r) = \frac{x(x^r-1)}{x-1}$$

with $x = N \sim 30$ or greater $\quad r = d$
and $r = 5$, $\quad N-1 \doteq N$, $\quad N^d - 1 \doteq N^d$

$$\therefore \Sigma(n) \doteq N^d$$

as used on other side

cf. CHAIN LETTERS, AMWAY

QUESTIONS FROM GRANDCHILDREN

I was greatly impressed with the profundity of the theological and scientific questions coming from generation #3. A friend who saw the questions flattered me by saying, "chips off the old block". I am indeed proud to have such wonderful grandchildren as Albert and Alexandra.
almost 8 5 1/2

Now to the questions: Alex asked,
"Who created God?' There are several answers. 1) God was never created, God always existed, because God is outside of time. Only material creatures exist within time. God exists in eternity. 2)God came into being simultaneously with the world. That is neither creator nor creation existed until both existed. Just as there is no creation without a creator, there is no creator without creation. That is why both our existence and God's existence depend on each other. We need God, but God also needs us. 3) Someone once asked St. Augustine (c400 C.E.) "What was God doing before creating the world?" He answered, "Creating Hell for people who asked that question." I do not agree. It is a wonderful question, because in asking it and thinking about it, even if we cannot come up with an immediate answer, it brings us closer to God and that makes it all worthwhile. It is written, " Seek and you shall find, ask and it will be given to you." So keep asking and searching all of your life and you might not get just the answer you were looking for, but if not you will receive something much more precious and useful.

Albert asked, "Is there more than one universe? and if so how many are there?"
This is a question that several contemporary cosmologists are asking. Up until a couple of decades ago, everyone would have said there is only one universe. But then with the work of another Albert, the great Albert Einstein's theory of relativity, objects called black holes, white holes and worm holes were surmised. Black holes have now been discovered, so white holes and worm holes are probably soon to be confirmed also. A black hole is a place where matter, energy and information leave this universe. A white hole is a place where matter, energy and information enter our universe. A worm hole is a tunnel connecting two universes, having a black hole on one end and a white hole on the other. So if each black hole is the entrance to a tunnel leading to another universe, then we must count up all of the black holes we can find and that would give us a clue to how many other universes there are. One difficulty is that some worm holes might twist back and be tunnels coming back into our own universe. So we cannot answer the question at the present time. But you might want to study Albert Einstein's work when you are older and search for a better answer to the how many universes question.

I miss all of you and am looking forward to my next visit, possibly in September.
Much love to all of you,
Grandfather Albert

AA QUEST1. AOL 96/04/01

THE PREDECESSORS OF BISHOP SPONG

Soren Kierkegaard (1813-1855)

Among the challenges to western culture made in the 19th century was the religious challenge of, the Danish theologian and philosopher, Soren Kierkegaard. The challenge made by Kierkegaard, was not heard in his time and is only now finding a response as the 20th century draws to a close.

For Kierkegaard questions of existence could not be settled by reason alone. He held there is no possibility of reconciling the idea of development of one's spiritual life with the imperatives of existing social, political, and religious institutions. Kierkegaard saw the Church as but another secular serving institution which blocked the spiritual development of its members. He totally rejected the claim that the Church was the true successor to Apostolic Christianity. Later similar ideas surfaced in the work of Emerson and the New England Transcendentalist School. But what is startling today is that scholars within the Church hierarchy itself are arriving at Kierkegaard's same conclusions. While these challenges may seem radical and revolutionary to some, the challenge to each individual's courage and commitment to a spiritual path is totally reminiscent of the challenge made two thousand years ago by one Jesus of Nazareth.

Ralph Waldo Emerson (1803-1882)

FREE RELIGION

Excerpts from a talk by Ralph Waldo Emerson, Boston, May 30, 1867

I think the necessity very great, and it has prompted all religious persons, whatever their connections, whatever their special ties, in whatever relation they stand to the Christian church, to unite in a movement of benefit to all, under the sanction of religion. We are all very sensible, it is forced on us every day, the feeling that the churches are outgrown; that the creeds are outgrown; that a technical theology no longer suits us. It is not the ill-will of people--no indeed, but the incapacity for confirming themselves there.

The church is not large enough for mankind, it cannot inspire the enthusiasm which is the parent of everything good in history, which makes the romance of history. For that enthusiasm you must have something greater than yourselves, and not less

The child, the young student, finds scope in his mathematics and chemistry, or natural history, because he finds a truth larger than he is; finds himself continually instructed. But, in churches, every healthy and thoughtful mind finds itself in something less; it is checked, cribbed, confined. And the statistics of the American, the English, and the German cities, indicate the necessity, which should have been foreseen, that the church should always be new and extemporized, because it is eternal, and springs from the sentiment of men, or it does not exist.

KIERKEGAARD
KIERKEGD.WPD 4/8/2000

We wonder sometimes that the churches still retain so many votaries. When one reads the histories of the church, there is an element of childish infatuation in them which does not exalt our respect for humanity. Mortifying puerilities abound in religious history. But as soon as every person is apprized of the Divine presence within their own mind, is apprized that the perfect law of duty corresponds with the laws of nature, as face to face in a glass. When the basis of duty, the order of society, the power of character, the wealth of culture, the perfection of taste, all draw their essence from this inner moral sentiment, then we have a religion that exalts; that commands all the social and all the private action.

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EMERSON3.WPD 9/8/2000

Edited version of ~~EMERSON1~~

FREE RELIGION

Remarks from a talk by Ralph Waldo Emerson at Tremont Temple, May 28, 1869

I think we have disputed long enough. I think we might now relinquish our theological controversies to communities more idle and ignorant than we. I am glad that a more realistic church is coming to be the tendency of society, and that we are likely one day to forget our obstinate polemics in the ambition to excel each other in good works. I have no wish to proselyte any reluctant mind, nor, I think, have I any curiosity or impulse to intrude on those whose ways of thinking differ from mine. But as my friend, your presiding officer, has asked me to take at least some small part in this day's conversation, I am ready to give, as often before, the first simple foundations of my belief, --that the Author of Nature has not left himself without a witness in any sane mind; that the moral sentiment speaks to every man the law after which the universe was made; that we find parity, identity of design, through nature, and benefit, to be the uniform aim; that there is a force always at work to make the best better and the worst good. We have had, not long since, presented to us by Max Müller, a valuable paragraph from St. Augustine, not at all extraordinary in itself, but only as coming from that eminent Father in the Church, and at that age in which St. Augustine writes: "That which is now called the Christian religion existed among the ancients, and never did not exist from planting of the human race until Christ came in the flesh, at which time the true religion, which already subsisted, began to be called Christianity." I believe that not only Christianity is as old as the Creation, --not only every sentiment and precept of Christianity can be paralleled in other religious writings,-- but more, that a man of religious susceptibility, and one at the

EMERSON 2 WPD 96/04/02

same time conversant with many men,-- say a much travelled man, - can find the same idea in numberless conversations. The religious find religion wherever they associate. When I find in people narrow religion, I find also in them narrow reading. Nothing really is so self-publishing, so. divulgatory, as thought. It cannot be confined or hid. It is easily carried; it takes no room; the knowledge of Europe looks out into Persia and India, and to the very Caffirs. Every proverb, every fine text, every pregnant jest, travels across the line; and you will find it at Cape Town, or among the Tartars. We are all believers in natural religion; we all agree that the health and integrity of man is self-respect, self-subsistency, a regard to natural conscience. All education is to accustom him to trust himself, discriminate between his higher and lower thoughts, exert the timid facilities until they are robust, and thus train him to selfhelp, until be ceases to be an underling, a tool, and becomes a benefactor. I think wise men wish their religion to be all of this kind. teaching the agent to go alone, not to hang on the world as a pensioner, a permitted person, but an adult, self-searching soul, brave to assist or resist a world: only humble and docile before the source of the wisdom he has discovered within him.

As it is, every believer holds a different creed; that is, all the churches are churches of one member. All our sects have refined the point of difference between them. The point of difference that still remains between churches, or between classes, is in the additions to the moral code, that is, to natural religion, of someone positive and historical. I think that to be the one difference remaining. I object, of course, to the claim of miraculous dispensation, - certainly not to the *doctrine* of Christianity. This claim impairs, to my mind, the soundness of him who makes it, and indisposes us to his communion. This comes the wrong way, it comes from without, not within. This positive, historical, authoritative scheme is not consistent with our experience or our expectations. It is something not in nature: it is contrary to that law of nature which all wise men recognize; namely, never to require a larger cause than is necessary to the effect. George Fox, the Quaker, said that, though he read of Christ and God, he knew them only from the like spirit in his own soul. We want all the aids to our moral training. We cannot spare the vision nor the virtue of the saints; but let it be by pure sympathy, not with any personal or official claim. If you are childish and exhibit your saint as a worker of wonders, a thaumaturgist, I am repelled. That claim takes his teachings out of logic and out of nature, and permits official

and arbitrary senses to be grafted on the teachings. It is the praise of our New Testament that its teachings go to the honor and benefit of humanity,--that no better lesson has been taught or incarnated. Let it stand, beautiful and wholesome, with whatever is most like it in the teaching and practice of men; but do not attempt to elevate it out of humanity by saying, " This was not a man," for then you confound it with the fables of every popular religion; and my distrust of the story, makes me distrust the doctrine as soon as it differs from my own belief. Whoever thinks a story gains by the prodigious, by adding something out of nature, robs it more than he adds. It is no longer an example, a model; no longer a heart-stirring hero, but an exhibition, a wonder, an anomaly, removed out of the range of influence with thoughtful men. I submit that, in sound frame of mind, we read or remember the religious sayings and oracles of other men, whether Jew or Indian, or Greek or Persian, only for friendship, only for joy in the social identity which they open to us and that these words would have no weight with us if we had not the same conviction already,. I find something stingy in the unwilling and disparaging admission of these foreign opinions,--opinions from all parts of the world,--by our churchmen, as if only to enhance by their dimness the superior light of Christianity. Meantime observe, you cannot bring me too good a word, too dazzling a hope, too penetrating an insight from the Jews. I hail every one with delight, as showing the riches of my brother, my fellow-soul, who could thus think and thus greatly feel. Zealots eagerly fasten their eyes on the differences between their creed and yours, but the charm of the study is in finding the agreements, the identities, in all the religions of men.

I am glad to hear each sect complain that they do not now hold the opinions they are charged with. The earth moves, and the mind opens. I am glad to believe society, contains a class of humble souls who enjoy the luxury of a religion that does not degrade; who think it the highest worship to expect of Heaven the most and the best; who do not, wonder that there was a Christ, but that there were not a thousand; who have conceived an Infinite hope for mankind; who believe that the history of Jesus is the history of every man, written large.

FIVE VIEWS OF CONSCIOUSNESS RESEARCH

FROM SCIENTIFIC AMERICAN APRIL 1996

I found David J.Chalmers's article, "The Puzzle of Conscious Experience" [December 1995], extremely interesting, but I question his statement that "to explain life ... we need to describe how a physical system can reproduce, adapt and metabolize." Such knowledge would not explain what is unique about a single-cell organism that causes it to do these things. Chalmers also does not discuss whether simpler organisms-insects, plants or one-celled organisms-are aware or possess consciousness. I suggest that neither consciousness nor life can be explained without taking the other into consideration. Perhaps they are opposite sides of the same coin.

SYDNEY B.SELF, JR.
Bedford, Va.

Chalmers offers no compelling evidence of a scientific basis for his distinction between physical process and experience. It would seem more sensible to assume that conscious experiences are physical processes and then to get on with the study of those processes. Neuroscientists might make more progress if they were not being distracted by philosophers proposing modern versions of vitalism.

ROBERT IRWIN
Monument, Colo.

I am surprised that Chalmers classified the question "Why does consciousness exist?" as the "hard" problem. I'd take the simple Darwinian approach of observing what we use consciousness for. We use it to look out for our best interests, and it is working well, as evidenced by the human population explosion. Apparently, no "unconscious automaton" can outperform a worried mind at staying alive.

ROGER LASKEN
Gaithersburg, Md.

I believe the consciousness "problem" is inherently insoluble. To explain a phenomenon is to compare it with another phenomenon of which we have knowledge and which we believe to be in need of no explanation itself. Our consciousness cannot be subjected to such comparison, because we have nothing with which to compare it-it is, by definition, all that we know.

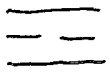
ROBERT J.SULLIVAN
Alpharetta, Ga.

CONRESOL.WPD 96/04/03

Science requires communication. If you believe that conscious experience is something that can be communicated, you will end up working on Chalmers's "easy" problems. If you believe it cannot be communicated, you'd best shave your head, grab your saffron robe and run-don't walk-to the nearest Zen monastery. Perhaps to understand consciousness fully, you have to do both!

CHARLES G. MASI
Bullhead City, Ariz.

FIGRND2.WP6 April 6, 1996,
rev: April 10, 1996
rev: June 5, 1996



L1

See also 1996#40

FIGURE AND GROUND

Figure/Ground constitutes an important sub-class of dyads and four subclasses of figure/ground are identifiable:

1) Figure and Ground are dual — Fig <---> Grd
2) Ground supports Figure — Fig <---- Grd
3) Figure supports Ground — Fig ----> Grd
4) Figure and Ground are independent — Fig || Grd

The following are cited as examples:

CLASS	FIGURE CARGO	GROUND VEHICLE
1	MATTER/ENERGY	SPACE-TIME
2	BALLS:STATISTICAL MECHANICS	BOXES:STATISTICAL MECHANICS
2	MOTION TIME	DENSITY TIME
2	MEASUREMENT	UNIT
2	AGE	DATE
2	TALL	HIGH
2	SENSATION	STIMULUS
2	SIZE	SCALE
1	PARTICLE	WAVE
2	SIGNAL or FORM	NOISE
1	LIFE	CONSCIOUSNESS
3	MANKIND	GOD
3	EXPERIENCE	EPISTEMOLOGICAL SCHEMA
1	EPISTEMOLOGY	ONTOLOGY
2	L,M,T	h,G,c
?	h,G,c	α,μ,S
2	FAST SYSTEM	SLOW SYSTEM
4	POINTS	LINES, AREAS, OR VOLUMES
2	PERCEPTION	EXISTENCE
3	ENERGY-MATTER	INFORMATION
3	NUCLEI	CELLS

?

Sensory Experience
Quantitative
PHYSICAL PROPERTIES
INTERPRETATION

Recognition
Qualitative
NUMBER
FACT

see 1996#13

See WHYMATH1.WK 96/03/18 in Exhibition Notebook

Ground
Laboratory spectra
UNIT

Figure
Redshift
MEASUREMENT

RECORD
INTERPRETATION
MESSAGE

EVENT

SELF-ORGANIZATION
CONTENT

NATURAL SELECTION
CONTEXT

MAGNETIC
SCRIPT
SOUND
EMW
...

INFORMATION

IN THE GREAT PYRAMID WE OBSERVE A FIGURE
WE TRY TO SUPPLY A GROUND IN
THE FORM OF ITS PURPOSE OR MESSAGE

COMPLEXITY ~~=~~ SYNTHESIS

FOR EVERY FIGURE THERE MUST BE A GROUND

QUESTIONS AND COMMENTS:

1] In each case there is always the question, which is the figure, which the ground?

2] And to which of the above four sub-classes does a pair belong?

3] A figure without the organization and information supplied by the ground is but noise.

4] SAT is the ultimate ground, supporting all figures yet having an independent existence. Only that which exists for others without the need of others is SAT.

5] SAT is involved in subclasses 2 and 4.

6] The śunyata is SAT.

7] Only SAT does not require repetition to continue to exist. All non-SAT figures must be continually 'refreshed'.

8] The premise adopted here is that not only perception but existence itself hinges on there being two levels, the level of figure and the level of ground. Pythagoras claimed that one (of anything) cannot exist. Eddington held that uniform sameness is the equivalent of non-existence, that is, a uniform or blank ground in the absence of an accompanying figure is neither perceptable nor existent. SAT is the exception to this two level law of existence.

9] Measurement is connecting a figure with a ground.

10] An example of energy-matter vs information is the Moon Illusion.

11] The existence of eigenvalues (or discreteness) in the figure infers finiteness or boundedness of the ground.

12] What is the horizontal connectivity of Figure and of Ground?
Are figures and grounds continuous or granular?
Two granularity constants may be required: Planck's $\hbar$ and superstring theory's α' or $(\alpha')^2$.

13] All may be granular. Granularity becomes continuity as scale decreases and becomes repetition as scale increases. It is a matter of resolving power.

14] Two Laws of Perception:
1) The Weber-Fechner Law (or some related power law)
2) We perceive only in the Eddington-Whitehead Zone, i.e all phenomena lie in the E-W Zone, all else is noumenal.
3) We retain only when we possess a code-book

15] The figure/ground concept is also of use in fractal dimension and in the chain-letter or Amway situation.

16] Fractal dimension is a mediator of figure and ground (cf measurement and measure)

17] Are other uses of log scales also mediators? Richter, pH, decibels, Weber-Fechner,...

18] The Great Dialectic or Antiphon is an example of sub-class one.

19] Li ☲ The Will of Heaven I Ching 6 4 Note, p126

Li = Depends or rests on something else

Li stands for nature in its radiance

"Everything that gives light is dependent on something to which it clings in order that it may continue to shine." p 126

cf. St. John 1:1-5

and The light was the life of men

Heaven is where
the police are British,
the cooks Italian,
the mechanics German,
the lovers French,
and it is all organized
by the Swiss.

Hell is where
the chefs are British,
the mechanics French,
the lovers Swiss,
the police German,
and it is all organized
by the Italians.

HEAVHELL, WP6

ETHNOLOGY 101

COMPARATIVE RELIGION 101
FACT OF LIFE: SHIT HAPPENS

THE APPROACH TAKEN BY VARIOUS RELIGIONS

TAOISM	BUDDHISM	ZEN
The shit that happens is not the real shit	If shit happens, it is not really shit	What is the sound of shit happening?
HINDUISM	**ISLAM**	**JUDAISM**
Do what you please, the outcome is always shit happens	If shit happens, it is the will of Allah	Why does shit always happen to us?
CATHOLICISM	**PROTESTANTISM**	**NEW AGE**
If shit happens, you deserved it	If shit happens, you didn't try hard enough	If shit happens, smell the flowers

Relig101.wpG

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See 1995 #82

THE HUBBLE PARAMETER AND THE HUBBLE TIME

SOME FUNDAMENTAL VALUES

	ITEM	VALUE	LOG_{10}VALUE
1	SECONDS IN SIDEREAL YEAR	3.1558150×10^{7}	7.499112
2	VELOCITY OF LIGHT cm/sec	2.9979246×10^{10}	10.476821
3	ASTRONOMICAL UNITS/PARSEC	206,264.807	5.314425
4	THE ASTRONOMICAL UNIT cm	1.495985×10^{13}	13.174927
5	LIGHT YEAR cm **1 X 2**	9.460896×10^{17}	17.975932
6	PARSEC cm **3 X 4**	3.085691×10^{18}	18.489352
7	LIGHT YEARS/PARSEC **6 ÷ 5**	3.261521	0.513420
8	MEGAPARSEC km	3.085691×10^{19}	19.489352

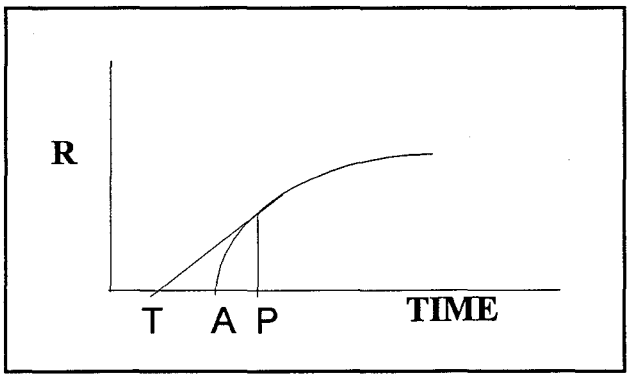
H, the Hubble parameter (or constant), is usually expressed in km/sec/mpc, kilometers per second per megaparsec. It has the dimensionality of [1/T]. The reciprocal, 1/H, is called the Hubble time and is usually expressed in billions of years. A value of H = 1 km/sec/mpc is equivalent to a T of 19.489352 seconds (log value) [from **8** above]. This is equivalent to 11.990240 years (log value) [**8 - 1**] or 2.990240 billion years (log value), or to 977.777 billion years.

$H = 1 \sim$

$f = 10^{-19.489352}$ hertz

$$T = 978/H$$

Thus we have the Hubble time in billion years is 978 divided by the Hubble parameter in kilometers per second per megaparsec.



RADIUS VS. TIME

In the diagram, P is the present; A is the time at which expansion began; P - A is the so-called age of the universe; and P - T is the Hubble time. In any model in which the expansion is slowing the Hubble Time will be greater than the actual age.

The "critical" value for closing the universe

$AP = \frac{2}{3} TP$

HUBLTIME.WP6 96/04/10

The age of the universe
as a fraction of the Hubble Time
is a function of the model.

$\frac{P-A}{P-I} = k$

Model	k

of the critical density to close the universe ($\Omega = 1$)
the Hubble time = $\frac{3}{2}$ age of the universe

i.e. $k = \frac{2}{3}$ See Sandage
Edge of Time p. 204

S&T July 1996 p 12
W. Freedman Cepheids
H = 68 to 78

H	T	A
68	→ 14.38	→ 9.6 by.
78	→ 12.54	→ 8.4 by.

See S&T Jan 1996 p 20-24

Saha - Sandage Type Ia Supernovae
H = 57 57 → 17.16 → 11.4

S&T July 1996 p 43
Jacoby, Planetary Nebulae
10 b.y. See S&T Nov 1990 p 466

1995 # 82 Pythagorean Method 9.057 b.y. → H = ~~108~~ [107.985 85]
if $\Omega = 1$ i.e. critical $\times \frac{3}{2} = 13.59$ b.y. → H = 72 71.990569

Carnegie Spectra June 1996

Freedman	73	± 15% uncertainty	13.40 × $\frac{2}{3}$	8.93
Sandage	57	7% uncertainty	17.16 × $\frac{2}{3}$	11.44

Freedman 1999 71 ± 7

Pyth 71.990569

71.96

A TABLE OF HUBBLE TIME T vs HUBBLE PARAMETER H

$T = \frac{978}{H}$

H in kilometers per second per megaparsec; T in billions of years

H	5	10	15	20	25	30	35	40	45	50
T	196	98	65	49	39	33	28	25	22	20

H	55	60	65	70	75	80	85	90	95	100
T	18	16	15	14	13	12	11.5	10.9	10.3	9.8

Physics Today

Wendy Freedman et al ~~Science~~, Aug 1999

$H_0 = 71 \pm 7$ km/sec/mpc

DHRMSANG.WP6

April 12, 1996

See 1994 #36 Red & White
1996 #38 INTRA-WARS

DHARMA OR SANGHA ?

Several items in the daily news this week have brought into focus a difficult ethical question, one that Josiah Royce in his praise of loyalty did not cover: When two loyalties conflict, how does one choose? Two current stories reveal different decisions on this issue:

The first story has to do with the identification and capture of the unabomber, with Ted and David Kaczynski. David led to suspicions that his brother Ted was the unabomber, made a careful investigation, and fearing that his findings did indeed confirm his belief, after months of agonizing reported his evidence to the FBI through an attorney. He felt that his loyalty to people yet to be killed was higher than to his blood brother.

The second story has to do with the family of a rapist. Alex Kelly of Darien, Connecticut. His parents found that Alex was indeed the rapist in at least two local crimes. They sent him to Switzerland and supported him there for eight years covering up his crimes on the basis that their first loyalty was to their son.

Positions and comments on these two incidents vary:
David Letterman on David Kaczynski: the unasquealer
CNN on "Talk Back Alive": Saint or Snitch?
E.M. Forster: "If I had to choose between betraying my country and my friend, I hope I should have the guts to betray my country".

While the above stories deal with individual families, we see the same issue at stake in Northern Ireland, the Middle East, and in former Yugoslavia. Is loyalty due first to principles such as the value of life, to justice or to peace; or is loyalty due first to blood, to relatives, to neighbors, to the state? To a religion: Protestantism, Catholicism, Judaism, Islam?

How are we to think about this issue? Is first loyalty to the teaching or to the group supporting the teaching, to the gospels or to the church, to the Torah or to the House of Israel, to Islam or to Muslims, to the Dharma or the Sangha, to the message or to the messenger? [To the Red or the White]

Then there is also the story of Judas. When he protested the pouring of oil on Jesus instead of selling it and giving the money to the poor, was his loyalty more to Jesus' teachings than to the person Jesus?

What about conscientious objectors? Only as recently as World War I was there even the possibility of allowing a man to place his loyalty to his beliefs above loyalty to the state.

And it has been said about the Holocaust Museum in Washington D.C. that it is a monument to misguided loyalty.

Following Orders

Nov 16, 2002

AND NOW ~~COMES~~ THE CATHOLIC BISHOPS

THE LOYALTY TO THE CHURCH, THE INSTITUTION, THE MESSENGER,

~~&~~

LOYALTY TO HUMANITY, THE INNOCENT CHILDREN, THE MESSAGE

Thoughts for our Journey

If the only prayer you say in your entire life is "Thank You", that would suffice.

Meister Eckhart

The most powerful prayer and the worthiest of all is the outcome of a quiet mind. The quieter it is the more powerful, the worthier, the deeper, the more telling and more perfect the prayer is. To the quiet mind all things are possible. What is a quiet mind? A quiet mind is one which nothing weighs on, nothing worries, which is free from ties and from all self-seeking, is wholly merged with the will of God and dead as to its own.

Meister Eckhart

Thus from the beginning of the world, as far as we can judge, man has known himself to be in the presence of a mystery ... The human imagination has always been haunted by thefeeling that we must die in order that we may live; that we have to be born again. To be a Christian is to accept this mystery of death and resurrection in one's own life, it is to pass through the world of appearances into the realm of Being. It is to commit oneself to the view that the world as we know it is not the world for which we are created ... Already science has begun to realize that the outward forms of matter,...are only a kind of algebra, a symbolic representation of certain elemental powers whose real nature we do not know. We know that we ...and the whole universe ... are in a state of evolution, passing continually from one state of being to another.

Father Bede Griffiths

We now know that everything is interrelated and the well-being of each is connected to the well-being of the whole.

Feodor Dostoevsky

None are going to make it unless all make it.

Li Kiang

APHOR96.WP6 96/05/01

RECOGNITION AUTHENTICATES OUR IMMORTALITY
REMEMBRANCE CONFIRMS OUR MORTALITY.

L.K.

"The philosophical problem is not to understand the world, but to change it."

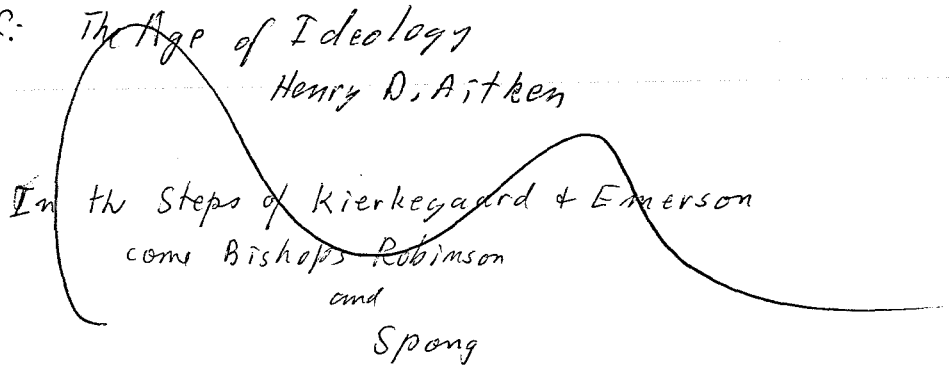
Karl Marx

In addition to Karl Marx, two other nineteenth century philosophers, Friedrich Nietzsche and Sören Kierkegaard subscribed to this radical redefinition of philosophy. While for Marx, the task was to find collective salvation through new modes of social organization, distribution and means of production, for Nietzsche, the task was for the individual to break with imprisoning societal norms and values and find fulfillment through an unchecked release of the human drive for power. For Kierkegaard the task was to transcend a disabling religious heritage to move beyond aesthetics and morality to a humanly attainable spiritual realization. Each of the three was attempting to do what a century later Buckminster Fuller would call 'breaking out of humanity's historical egg shell'.

What Marx had wrong was that without understanding the world any changes of the world would be only superficial and temporary. Political manifestations of Marx's ideas in 1871 and from 1917 to 1991 comfirmed this flaw. A political manifestation of Nietzsche's ideas, the Germany of the Third Reich 1933-1945, misunderstood the philosopher's vision of Ubermensch--for the Nazis power was interpreted as political domination and the venture became nothing but another instance of the repetitive historical pattern of attempts at conquest. After these costly failures, the ideas of Marx and Nietzsche were sent back to the philosophical drawing boards. We may, however, expect their return in revised form to the political and social arenas sometime in the 21st century.

However, it is the third challenge to existing society, the challenge of Kierkegaard, that is only now beginning to manifest itself as the 20th century draws to an end. For Kierkegaard questions of existence could not be settled by reason alone. He held there is no possibility of reconciling the idea of development of one's spiritual life with the imperatives of existing social, political, and religious institutions. Kierkegaard saw the Church as but another secular serving institution which blocked the spiritual development of its members. He totally rejected the claim that the Church was the true successor to Apostolic Christianity. Similar ideas had surfaced in the work of Emerson and the New England Transcendentalist School. What is startling today is that scholars within the Church hierarchy itself are arriving at the same conclusion. At this stage this third challenge to the traditional order is embryonic. While it is radical and revolutionary, it focuses, not on society and the state as Marx' revolution, nor on society's values as Nietzsche's revolution, it challenges the individual's courage and commitment, totally reminiscent of the challenge made two thousand years ago by one Jesus of Nazareth.

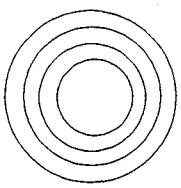
Ref: The Age of Ideology
Henry D. Aitken



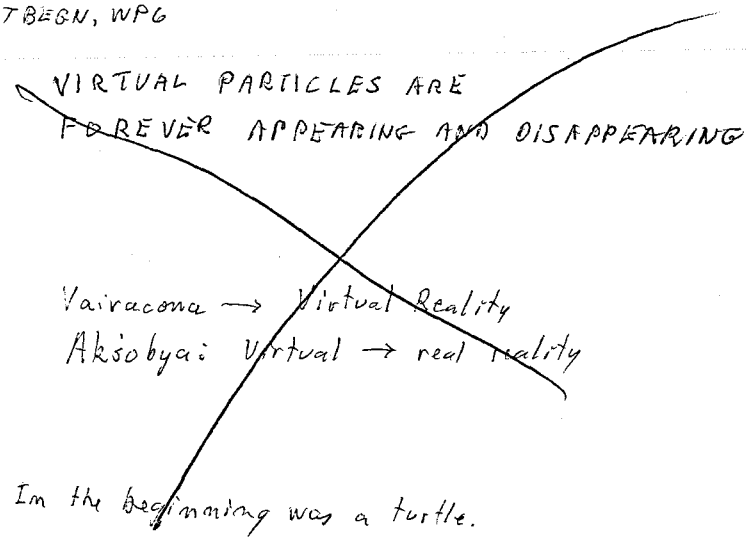
The Sunyata is the emptiness that contains all forms. What the Sunyata contains does not exist, nor does the Sunyata itself exist, but the forms that come from the Sunyata find existence when mirrored by the Tathagata Aksobya.

In the beginning was the Word, and the Word was with God and the Word was God. The same was in the beginning with God. All things were made by Him; and without Him was not any thing made that was made.

White noise contains all frequencies and hence all sounds and signals. White noise in not a signal but contains all possible signals. Noise is not a signal until it is auto-modulated and iterated.



~~SHUNYATA.WP6~~ 96/05/08
JUXTBEGN, WP6



In the beginning was a turtle.

"There is no idea, however ancient or absurd, that is not capable of improving our knowledge."

Paul Feyerabend

The epistemological anarchist, Feyerabend, supports any source for obtaining hypotheses, even buying them from the leprechauns provided the price is right. The following is an attempt to find a hypotheses by putting two equations in juxtaposition: a well known arithmetic relation and Kepler's third law, with the hope that they will start a dialogue.

First, the arithmetic relation:

time aggregation — space aggregation

$$(1+2+3+\ldots+n)^2 = 1^3+2^3+3^3+\ldots n^3$$

Prove by Mathematical Induction

Next, Kepler's Third Law:

$$GM\,T^2 = R^3$$

A parallel is suggested when we adopt the following forms:

$$\frac{(\Sigma m)^2}{\Sigma m^3} = \frac{(\Sigma n)^2}{\Sigma n^3}$$

and,

$$\frac{T_m^2}{R_m^3} = \frac{T_n^2}{R_n^3}$$

If there is a dialogue, it says that both time and three dimensional space aggregate linearly, but the square root of space must be taken to obtain dimensional correspondence with time. Something here suggests that Pythagoras was right when he claimed that at the root of all physical laws are the properties of number.

MORAL EMPIRICISM

Today's foremost primary moral philosophers and teachers of ethics are neither clerics nor academicians but consist of a group of female newspaper columnists: Abby, Ann Landers, Susan Dietz, and Miss Manners,... Through their comments on readers problems they teach social and personal values by walking a tight rope between traditional morality and modern moves. And they do this, without recourse to historical religious doctrines or dogma. Their adopted basis of morality is empirical. What behaviors work and what ones don't. This is a moral pragmatism which is anathema to traditional moral authoritarians ,who hold to Absolutes and refute "situaltional ethics", and who would retain authoritarian power of punishment over all through ancient notions of Heaven and Hell. cf Lippmann

Darwin undermined the intellectual structure which supported Western religions and in consequence their basis of morality. While most today adhere to traditional values for whatever reasons, the 'Origin of Species' did create a vacuum which both relativistic amoralities and moralistic nihilism rushed to fill The consequences of such views are increasingly being felt. Nazism was not an isolated expression of the inheritance of Darwin and Nietzsche.

But what the Newspaper ladies are bringing to the moral void is its timeless Eastern base, the Law of Karma. For the Law of Karma-- every action has its inevitable consequence-- is nothing but moral empiricism. Human experience through the ages has led to moral law. Virtue emerged independent of ecclesiastical sanction. In fact morality did not require the support of authoritative sanction, rather authoritarianism needed the support of a moral imperative. The difficulty, however, with the law of karma is that, unlike physical laws such as gravity, the feedback time is not instant. Indeed, it may be years. This is why the ecclesiastical approach has proved useful, it guides children and those too immature to perceive non-immediate consequences of their actions.

The moral crisis is of the West's own making. Its religions repudiated the law of karma, substituting the idea of ubiquitous forgiveness. While we should follow the prescriptions of forgiveness in our own lives, the Lords of Karma, whose task it is to keep the Cosmos coherent, will enforce their law in all its forms, physical, biological, and moral.

Therefore, I call for a salute to Our Ladies of the Columns who are guiding us through a perilous transition to moral maturity.

Moralemp.wp6 96/05/09

Dvbrel 18 Garton16

Historically, humans have largely done the right things, but for the wrong reasons. Perhaps this is because we are guided by some principle or "force", but when we try to justify it (what we do) to ourselves (our built in need) we come up with ~~absurd~~ myopic models, theologies, and theories. It is an attempt to see beyond the years while guidance is day by day.

i.e. We recognize

We seek to know (describe) the goal, while we should purfect the process.

INJTOINS.WP6 May 9, 1996

FROM INJUNCTIVE TO INSTINCTIVE

Something unexpected is happening in L.A. On a recent visit almost as soon as I got on the freeway I encountered gridlock. Whatever the trouble was, I was amazed at the facility with which the LA drivers countered it. Drivers not only taking turns but pulling aside to facilitate traffic flow in an exhibition of good manners and politeness I had never expected to see. LA drivers seem to be operating in accord with that old Buddhist truism, "None of us are going to make it unless we all make it".

During my entire visit I only saw one troglodyte driver doing his broken field running from lane to lane. I guess that such drivers are an endangered species in LA. They are either inevitably removed from this existence by freeway dynamics or perhaps just shot by those who have been cut out of their turn.

participation in traffic vs driving in traffic

Everywhere traffic moved like a flock of migrating birds, with total unity and coordination, four and five lanes at seventy five miles per hour. Perhaps the traffic like a bird flock was becoming an organism. Each driver sensed when to slow, when to accelerate, how to optimize the flow. Indeed, the individual was subsumed by the whole. Great Teachers have given us injunctions from whose obedience comes a life of harmony. Wouldn't it be paradoxical if humanity's step to higher consciousness occurred through that prime enhancer of the individual ego, the automobile. That somehow transcending the explicit rules of the road we learn instinctively what is right.

But my optimism was soon erased after returning through (pg) other urban areas where the coupling of lead (pg) heads and lead (pg) feet was an invariant equation. For example, drivers would wait patiently for the light to turn green, but after a time they came to think that it wasn't going to turn, so they should be doing something else so as not to waste time. Usually about two and a half seconds before the light turned they would start sorting the stuff beside them on the front seat and had become completely involved by the time the light changed. Then after the green light had aged almost to senility they suddenly awoke and moved off at warp speed.

But perhaps I should hang on to my optimism, for as has often been said, what happens today in LA will be happening all over the country in ten years.

I could follow what my heart desired,
without transgressing what was right.
Kung Fu Tze

cf also Ellul on anarchy

I am fascinated by watching the coordinated movement of flocks of birds or schools of fish. Such harmony! No one out of place, out of step, sudden turns executed with phenomenal precision. No individual trying to get there ahead of the others. It is almost a ritual - a celebration of community - by turning to a higher unity.

Only in dance do humans palely emulate what the birds and fish do so well.

See also 1997 #14

THE EMPTY QUADRANT

Science does not recognize the spiritual in nature, and religion has removed nature from the spiritual. The result is an empty quadrant in human life. In viewing the quadric diagram (Figure 1) constructed from the dyad pair, nature-culture and matter-spirit, it is seen that the engrossing activities of present day western society all eschew the nature-spirit quadrant.

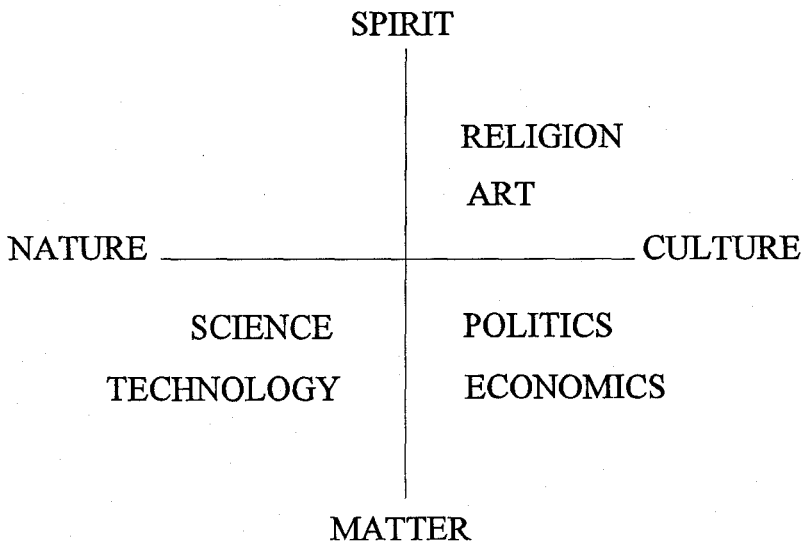


Figure 1

Present day western culture is primarily involved with the two material quadrants in the lower half of the figure. The efforts of science and technology focus on the nature-matter quadrant while the activities of economics and politics take place in the culture-matter quadrant. Art is displayed in the culture-spirit quadrant, but would better be represented as lying along the nature-culture axis. Since pagan times most religious activity lies in cultural traditions, and only in an indirect or token way references nature. And while modern science explores nature there is little in its approach that goes beyond the purely material.

One way of looking at this diagram is to think of it as displaying social evolution. In the most primitive societies, nature and spirit were the dominant cultural concerns (upper left quadrant). Later emphasis was less on nature and more on heritage, adding the social emphasis of the culture-spirit upper right quarter. With the arrival of civilization, that is cities, the emphasis moved to the culture-matter quarter. And finally in the most recent centuries, the social infrastructure, as exemplified by the activities and products of science and technology, incorporated

EMPQUAD.WP6 96/05/23

Communes and ashrams were anti-intellectual
universities and were anti-spiritual,
so I wanted to create a place that was intellectual
and spiritual at the same time.

— William Irwin Thompson
re Lindisfarne

the nature-matter quarter. But in this series of changes the original quadrant became less and less relevant and today has all but vanished.

In the continuing evolution of the social order, a cyclical process may be involved--a sort of four-fold helical process-- and the time is now ripe to again explore the nature-spirit quadrant. Each time around new and deeper insights into ourselves and the world become manifest.

However, there may be other ways of looking at the quadric diagram. The human motivation of seeking control may lie at the root of what is taking place in each quadrant. Primitive society had no control over nature (nature-spirit quadrant), but a cultural concept of control arose through making sacrifices to the gods. While this may have had little effect on the gods, the sacrificing priests discovered they had gained tremendous control over society (spirit-culture quadrant). This level of priest control prevailed until the time when political and economic controllers wrested it from their hands (culture-matter quadrant). Today another power shift is underway with "technological priests" taking over through their increasing control over nature, achieving for the first time what humans have always sought (matter-nature quadrant). Today there is no desire on the part of the new dominant priesthood to abdicate their advantage by allowing movement into the nature-spirit quadrant. It therefore remains empty.

Still another reason for the emptiness of the nature-spirit quadrant, to enter this quadrant the drive for control must be abandoned. You come into harmony or you do not enter. And it is frightening today as in primitive times because in this quadrant we discover we are not alone. Comforting to some, repugnant to others. A great change is required for all who would enter here.

But the nature-spirit quadrant is not entirely empty, only relatively so. Herein reside the nature poets, scientists like Loren Eisley and Arthur Eddington, (and even one aspect of Einstein). Here is the abode of mystics from all cultural traditions, and there are vestigial remains from earlier times, such as the liturgical year, sacred times, and sacred places. And much music and art springs from roots in this quadrant.

The difference between the matter-nature approach and the spirit-nature approach is attitudinal: objectivity vs. awe and reverence, utility vs. sanctity of all that has been created.

The quadric may be "morphed" by substituting inner-outer for spirit-matter, and/or individual-collective for nature-culture.

An intriguing question is where does mathematics lie in these quadrics? Mathematics is not matter, is it nature? is it spirit? It seems, like music to exist in all four quadrants.

A different way of formulating figure 1 is given in figure 2.

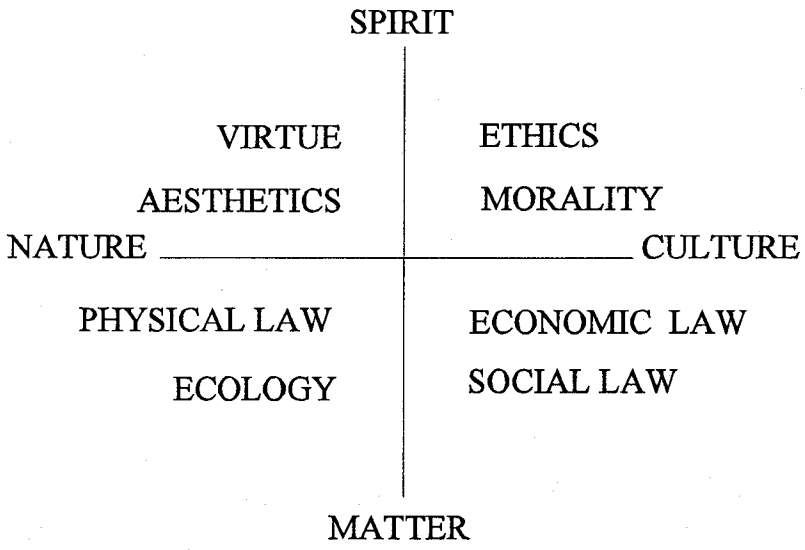


figure 2.

Today in order to enter the "empty quadrant" one must start from a well established position in either the RELIGION-ART, ETHICS-MORALITY quadrant or the SCIENCE-TECHNOLOGY, PHYSICAL LAW-ECOLOGY quadrant. (Preferably from both) Both of these quadrants may be the doorways to the world of transformed consciousness. In his day, Soren Kierkegaard held that the spiritual path began with aesthetics (nature-spirit quadrant), led to morality (culture-spirit quadrant) and then moved into a higher spiritual consciousness, off the diagram.

Specific approaches from the RELIGION quadrant include the re-interpretation of ancient teachings (Biblical, Early Christian, Gnostic, Celtic, etc.), juxtaposition of Eastern, American Indian, and Western spirituality, use of various contemplative and ' meditative epistemologies', exploring the psychological essences and power of symbols, and finally the reincorporation of kairos in our lives. Specific approaches from the SCIENCE quadrant, include juxtapositions of quantum reality, information theory, and spiritual reality, the purifying value of mathematical meditation, acquiring a subjective-objective approach to nature such as developed and exemplified by Loren Eisley. While all of these approaches are currently being explored, when measured by the energy-information emphases of today's global culture, the nature-spirit quadrant remains next to empty. Yet this quadrant must be passed through in every spiritual path.

BREAKING OUT

The basic of life seems to be to break out of one's present condition. How people differ is not in the desire to break out, but in what they want to break into. There seem to be four categories of motivation:

- The young, especially teenagers, want to break into the adult world.
- Most adults want to break into more affluent circumstances.
- A fraction of adults want to move up in the social scale, acquiring recognition, prestige, fame, power, and influence.
- A very few want to break out of the circumscribing ontological milieu into some vaguely defined "other".

The above four categories all consciously or unconsciously believe in the inevitability of progress. They believe that the state they pursue will be an improvement or enhancement. There are those, however, who feel that the state of affairs is degenerating and they recall better days. These people are nostalgic, conservative, and feel we should return to earlier values and circumstances. In the extreme these people are fundamentalists, holding that return to some ancient condition is the solution to our discontent. These in essence are not a fifth group, but contain all of the above four categories, wanting to return to childhood, or earlier circumstance, or past scala, or some traditional ontological worldview.

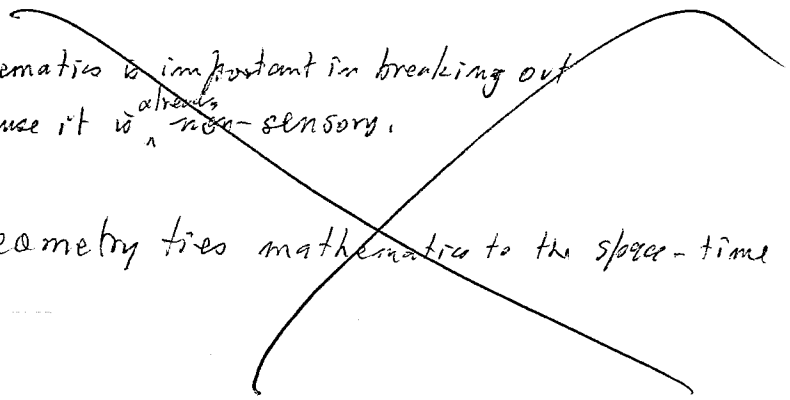
The first three categories have been with us in the West from the beginning of human societies, but the fourth category, those seeking an ontological breakout, is comparatively new. The first ontological revolutionaries were set on escaping from the web woven by clericism and church. These were the 17th and 18th century thinkers, the encyclopedists, who built the enlightenment. But having escaped from the "City of God", they were immediately reimprisoned in the castle of scientific determinism. The 19th century revolutionists, Marx, Nietzsche, Kirkegaard, etcsought to break out through taking on larger domains. Marx through social reorganization, Nietzsche through unorthodox social values, and Kirkegaard through an existentialist overruling of determinism. The entry of Darwin on the scene completed the liberation from the clerics, but created a backlash among those who felt the very dignity of being human had been taken away. Even Darwin's spokesmen, Huxley in the 19th century and Sagan in the 20th, express regretful feelings of there being a new imprisonment of the human spirit. Today's ontological revolutionists are trying to find a new meaning to being human, independent of church, science, and history. They reject the insignificance of mankind based on physical scale preached by the scientific cosmologists, and the meaninglessness of a world built by improbable encounters of atoms and molecules.

Not so This has always been the goal of Buddhists

BREAKOUT. WPG 96/06/02

Mathematics is important in breaking out because it is already non-sensory.

Geometry ties mathematics to the space-time world



TURNING THE WHEEL

The following is not an orthodox Buddhist interpretation of the turnings of the wheel, but through non-sectarian perspectives makes integrative sense

THE FIRST TURNING OF THE WHEEL:

The first turning of the wheel was done in his lifetime by the Buddha Śakamuni. It consisted of the teachings on how to transcend personal suffering and ephemeralism and find one's Buddha nature. It is today the essence of Theravedan Buddhism, the individual path to enlightenment.

THE SECOND TURNING OF THE WHEEL:

The second turning of the wheel occurred some 500 years later in the first century of the common era at the time of the advent of Mahayana Buddhism. It amended enlightenment with the introduction of the concept of the Bodhisattva, a being who attained enlightenment not for personal gain, but for the salvation of all sentient beings. A Bodhisattva would sacrifice nirvana and return to earth for the salvation of others. At about the same time as the introduction of this concept in India, a concrete example of a Bodhisattva appeared in the Middle East in the person of Jesus of Nazareth. It can be claimed that ~~the Christ~~ Jesus was the first Bodhisattva and indeed the inspiration for the Bodhisattva ideal. We are all called to be like and to become Bodhisattvas.

THE THIRD TURNING OF THE WHEEL:

The third turning of the wheel occurred after the lapse of another 500 years, when the Prophet Muhammed made clear the true unity of humanity. He proclaimed that suffering was not individual, but that when one suffered, all suffered, and when all suffered, each suffered. We are all interconnected and the salvation of one depends on the salvation of all. "None of us shall make it until we all make it."

THE FOURTH TURNING OF THE WHEEL:

Five hundred years after the third turning of the wheel, Tibetan Vajrayana came to the understanding that the first three turnings of the wheel led apodictically to the responsibility on the part of all for the sacralization of all. Everyone and everything contains Buddha nature, and is therefore sacred. We are given the task of effecting and perfecting this truth both in subjective attitude and in outer works. Both the individual and the collective goal of life is Theosis, the sacralization of the world.

Sacrilization is going to an alternate way of viewing the world, of being

WHEELTRN, WPG 96/06/05

The Fifth Turning of the Wheel: c 1400 A.D.
To receive and ponder the teachings of Nature

The Sixth Turning of the Wheel c. 2000 A.D.

when events become cyclical, we have reached an attractor and the time has come to break out again.

The turning of the wheel symbolizes evolution emancipation to a new consciousness.

cf. Scraps on the Transfiguration

THE INTRA-WARS

In the civil war that raged throughout Russia during the years 1919 to 1922 the contestants were labeled "Reds" and "Whites". While in those years these labels had a specific political meaning, in a more general trans-political sense these are appropriate labels for the protagonists in every civil or "intra-war".

> [The term 'intra-war' can be used to represent any conflict taking place within a unitary body, whether the war be a civil war within a nation state, or just a conflict of conscience or motivation taking place within an individual. We may even say that every war is an intra-war if we presume humanity itself to be a unitary body.]

This is not to say that every issue is reducible to a single issue, but to say that every issue contains an element of what we may call Red versus White. In brief, the White component of an issue is its lawful, ideological, or visionary elements, while the Red component is its feeling, humanitarian, or compassionate elements. The basic White-Red issue boils down to: Is our first commitment to principles or to persons.

Consider the story of Abraham. In his old age he was given the longed for but unexpected gift of a son, Isaac. This gift was the most precious thing of his life. But Abraham was guided by principle, which took the form of his God. And God wanted to test Abraham to find out whether his ultimate commitment was to Him or to his treasured Isaac. Was Abraham a White or a Red? The story tells us that Abraham was White, his ur-commitment was to the will of God. He was prepared to sacrifice Isaac to fulfill his commitment to God. In the Biblical resolution, deus ex machina, at the last minute God provided a surrogate sacrifice and Isaac was spared. But there is another version (from Kierkegaard?) that finding himself in the all too human predicament of conflicting commitments, caught in the middle, after placing Isaac on the altar, Abraham raised the knife, looked up to heaven, uttered a loud cry, then brought the knife down into his own breast.

Then there is the story of ~~Lot~~ Job, also tested for his commitment to God. The Bible seems to iterate and iterate on the theme, where is our ur-commitment, and the answer is always White. Our first loyalty must be to an ideal, to a spirit, to an abstraction, to God. Indeed the basic idea of sacrifice resides in abandoning the Red whenever the White demands. Even God follows this rule, sacrificing His Son on the cross for a principle.

The cynic in our age says the problem is with the idea of commitment, do away with loyalty and commitment. The sage says commitment is our highest virtue, therefore preserve commitment only for that which does not place White against Red. Question whatever divides White from Red and serve only that which is simultaneously supportive both of vision and of life.

WHITRED2.WPG 96/06/07

See also 1996#28 Dharma or Sangha?
1991#36 White & Red

It is interesting that Israel has abandoned White for Red.
First loyalty is not to God, but to the House of Israel

Help us to become emancipated from the God of Abraham
and from Newton's sleep

Red: Loyalty to Hardware
White: Loyalty to Software

Red: Synchronic Zoom In
White: Diachronic Zoom Out

The Old Testament: Abraham, Job White
The New Testament: Jesus, Compassion Red

THE FACE ON THE CLIFF

PART I: THE EVENT

Early in 1978, the year I became sixty, my older son Art sent me a challenging request. He said, "Dad, you have been a scout out there exploring on the borders of the unknown for the past few decades, now that you are turning sixty how about reporting back to the rest of us what you have found. Why don't you write down what you feel you have come across that is worth passing on." After recovering from the flattery and thinking about it, I agreed that this might be a worthwhile thing to do. It turned out that it was not only challenging, but it was also fun. The result was a small booklet called "Sixty Years" which contained some of my more bizarre personal experiences, but mostly included what I had come across in my studies and research that had particularly impressed me. About sixty copies were printed and passed out to friends at my Sixty Birthday Party. The pamphlet included quotes from various sources that I felt were useful guides for how to live one's life. I recall the final quote in the book was something to the effect, "The last of life, for which the first was made, is yet to come". (Robert Browning, I believe.) This seemed to license me not to stop but to keep on exploring and really go after some of what I had up to then only glimpsed. So began the race between the Achilles of the ageing process and the Tortoise of my search for the truly significant that Art had asked for in the beginning.

About a week after the birthday party the Tortoise moved into the next interval of the race. At a family reunion in Flagstaff, my son Charles, my grandson Clayton, my son-in-law Tom decided they would like to see Lake Powell on the Colorado River up on the Arizona-Utah border. They wanted to swim, fish, and explore. Explore? How about inviting me to join? O.K., but are you sure you are up to it? I recalled Browning and felt I had to show these young whippersnappers that the hill is always ahead and you are never over it until you are in your grave (and I am not sure even then).

Our first day at the lake we only loafed, swam, and made a few plans. On the morning of the second day we rented a small motorboat and headed east, our destination Rainbow Bridge National Monument. On the way we frequently detoured and explored some of the strange side canyons. Very few places in the world, (another is Petra in Jordan), do canyons have such large height to width ratios. We took the boat up canyons but three or so feet wider than the boat , but whose vertical sandstone walls on each side rose several hundred feet. The entire scene seemed extra-terrestrial because of the complete absence of vegetation. Everywhere the water met rock without any intervening strip of plant life.

After lunch in a secluded cove, we resumed our trip to Rainbow Bridge, reaching the end of the inlet that leads to the bridge at about two in the afternoon. Before the Colorado was dammed creating Lake Powell, Rainbow Bridge was difficult to reach, involving packing in for several days. But with the lake visitors could go by boat to within a short hike of the bridge.

CLIFFI.WPG

96/06/11
96/07/20
96/08/24

initial KOELBEL, ENGLEWOOD, CO 96/05/21

For me this trip was a pilgrimage. I had always wanted to visit the bridge for I knew it to be held as a sacred place by the indigenous peoples of the Southwest. On arriving, I was not disappointed in either the geologic magnificence of this great red stone arch, nor in the spiritual presence that suffused the area and which qualified it as a temenos to native peoples. I shared their reverence. But I was not only a pilgim, I was also a tourist and I wanted a memento of our visit. So I found a small stone of unusual shape that I could add to my stone collection which I had gathered over the years from various sites around the world. Shortly after I picked up the stone Charles came up and said, "Dad there may be a storm coming up I think we had better get started back".

Charles was right, when we left the inlet and returned to the lake we were alarmed at the change. A strong wind from the west was blowing and the lake was covered with white caps. As we moved away from the shore we realized that we were in for a rough ride. Our course was about 45 degrees from the wind, but in so small a boat and with the increasing height of the waves we decided our best heading was directly into the wind. As the wind freshened the waves grew. We estimated their height at about a third the length of the boat. It became very rough. After a few minutes the timing of the arrival of the storm occurred to me. It had begun right after I had picked up the strange shaped stone near the bridge. I was wondering if there were some connection, when Charles said, "Dad, did you do something you shouldn't have back at the bridge?". He looked hard at me and I felt he was reading my thoughts. I replied, "You think I'm a Jonah connected with this storm?". "Well, are you?" "Could be, but certainly not intentionally." The waves pounded us and the boat pitched like a wild horse. I then began an inner dialogue with the storm god. "If my taking the stone is forbidden, then I shall return it." And within minutes the storm began to ease. I concluded that I was not to have removed the stone.

Charles, who had been at the helm, said that we were making very little headway and it looked as though we couldn't possibly get back to the base before night. The storm was indeed abating, but we estimated that we had covered less than a fourth the distance back in the last two hours. We decided it would be better to land somewhere and spend the night than to try to find our way back in the dark. Although we were making better headway now that the storm was subsiding, we could see no place to land for almost everywhere the banks of the lake consisted of rock cliffs descending vertically to the water. Then Tom shouted that there was a sand bar ahead on our left. We could land there. This might be the solution. We approached and saw that there was a shoal rising a few feet above the water, displaying some large rocks but separated from the south bank of the lake by some hundred yards. We eased forward and found we could bring the boat to a secure mooring. By now the lake was regaining its customary calm and we were easily able to get our gear to shore. We had not come prepared to spend the night, but had some food and our jackets so if we could find a sheltered spot among the rocks we should be O.K.

The sun was low in the August sky and was casting long shadows.I was thinking of my promise not to remove the stone and wondered if I must return it to where I had picked it up, when looking across the lake toward the northeast, I was amazed to see a great face staring at me from the cliff. The shadows cast by the irregularities in the rock on the opposite cliff composed a human face closely resembling that of an Indian chief.

The likeness was striking, the features were strong and stern, yet quite handsome and constituted a presence that commanded the entire scene., I thought that this must be pure imagination coming out of my inner dialog with the storm god. "Hey, Charles, Tom, Clayton, look at that cliff over there do you see anything?" They stared, "See what?" "Anything on the face of the cliff." After a few moments, "Yeah", said Clayton, "There's a funny looking face over there." Thank goodness, I am not yet totally crazy. "Can you describe it?" "It kinda looks like an Indian." Charles and Tom then saw it. We watched as the shadows lengthened and the face distorted and then disappeared. A few minutes later the sun was down and the stone I had picked up at the bridge was restored to a hollow niche in a large rock with hopes this would suffice as non removal from the area, praying the incident was closed.

It turned out the stone-storm incident was closed but the gestalt of the experience was not. I settled my mind by deciding that my picking up the stone and the occurrence of the storm was purely a coincidence. The dialog with the "storm god" and the ensuing abatement of the storm was not magic, just more coincidence. But with coincidence and imagination put out of the way there was still something that bothered me. I, and not I alone, following the storm had seen a face. But that too had a ready explanation in terms of shadow patterns. All of the separate pieces of the incident could be easily explained and dismissed, but the experience as a whole seemed to contain a message that was greater than the sum of the parts. To complete the picture one additional fact was needed. Would the face be there again at the same time on the next evening, or was it a one time occurrence? The set of coincidences explanation would be falsified if the face were not there. But we did not return to find out.

PART II: AN INTERPRETATION

All of my life I have had what some would call paranormal experiences. But these have for the most part been mild, like seeing ghosts and other apparitions. Although I am convinced that there is far more out there than the scientific method is capable of digesting, I am its colleague in the crusade against woo woo and quackery. So perhaps a better label than paranormal for my experiences would be abnormal. I certainly recognized the face on the cliff as something abnormal. Something not to be dismissed but to be encountered. What was this experience trying to tell me? What could be learned from it? On reflection, the stone and the storm were probably purely coincidental, except that the storm had forced us upon a shoal at such a place and time for the face to materialize. If the message is the medium, which medium, the storm or the cliff? I selected the cliff for the message of the cliff possessed a certain familiarity. It had a resemblance to a message that Plato had remarked some twenty five centuries before: In what sense is reality an illusion, a pattern of shadows? For Plato on the wall of a cave, for us on the face of a cliff.

The thought came that human sensory experience can be isomorphically compared to communication: First, there is a message source, second a communication channel, and third a receiver. In the present case, the source is the configuration of actual rock indentations and protuberances on the face of the cliff, the channel is the sunlight falling on and reflected by the cliff, and the receivers are we gawkers standing on a sand

bar. The sunlight interacts with the rock shapes to create a pattern of reflected light and shadow which is perceived by observers but noted only in the event the pattern triggers something either already familiar to them, such as in this case, a human face, or is "recognized" perhaps as a deja vu experience. This means that in addition to the basic three communication components, in order for there to be communication, there must be a fourth component. The receiver or observer must also have a code book by which messages are discriminated from non-messages. Only those patterns listed in the receiver's code book will be recognized as messages, and only by a receiver who is at the right place at the right time with the right lighting. . It is these elements of code book, place, time, and channel that force us to re-examine our views of what we know and how we know it.

To begin with let us agree to call the rock shapes on the cliff, Reality with a capital R. These rock shapes are independent of time and the positions of the sun and observer, and therefore possess a different order of existence than do the patterns of light and shadow created by their interaction with the sunlight. Let us call a configuration consisting of the intensity, color, and direction of the initial and reflected light a channel. Every channel interacting with Reality creates a set of patterns. The totality of those patterns received by a particular observer let us call the observer's world, and that subset of patterns which are contained in the observer's code book will constitute the particular observer's reality

The observer's world consists of a set of patterns resulting from synchronicities of time and place. The observer finds some of his world's patterns of interest and records them while ignoring others. Those which repeatedly occur get recorded, remembered, and are recalled whenever they recur. But some forms, not repeated, and therefore not stored in memory, are nonetheless "recognized". The observer's reality is thus composed of two orders of patterns: those remembered and those recognized; those the observer puts into the code book and those which are already in the code book. Thus one epistemological question raised by the face on the cliff metaphor is, "What is the origin and source of that portion of the observer's code book not placed there by memory?"

In addition we see that a world is dependent not only on the observer being at a particular location but on a concatenation of cyclical temporal configurations of which the observer may or may not be aware. The world is thus "granularized" in both space and time. It exists only at certain times, at other times it non-exists. Further at times of existence it exists only for observers at certain places and not for observers at other places.. Experience of the spatial and temporal granularity of the world led the Ancients to the concepts of temenos and kairos, special places and special times, places and times of opportunity, sacred places and sacred times. Today's communication engineers prefer the language of 'multiplexing': for special times, TDMA (Time Division Multiple Access); for special places ADMA (Area Division Multiple Access); for special illumination FDMA (Frequency Division Multiple Access); and for special code book possession CDMA (Code Division Multiple Access). In multiplexing science-technology has at last given us a useful metaphor for understanding Reality->reality.

..... also the fence

THE CLIFF IS A USEFUL EPISTEMOLOGICAL/ONTOLOGICAL METAPHOR

Another basic question: Is Reality knowable? Can it be deduced from knowledge of our world? Must several worlds be known in order to grasp Reality?

.....

We can agree with the Buddhists that reality is an illusion.

.....

It seems the immediate first step is to become aware of the portion of the world that is filtered from us by our code book. How do we extend the code book, our awareness? Lower case reality consists of phenomena. There are several levels of noumena.

1. world not in code book
2. other worlds, all facets or spin offs of Reality
3. are there other light sources? Using 2 or more light sources may be the path to grasping Reality!
4. Is there more than one Reality?

The message is that we are **sharing** Reality with others, per CDMA, TDMA, FDMA, and ADMA. Multiplexing is about sharing.

The sensory spectrum of the observe

what we behold in the world is a synchronicity of time, place

outer cliff light — inner code book — the sensory is illusion

meaning

The search is for the code book
what is in it. How did it get there
what is its source.

Thus we are not experiencing Reality except as filtered by our codebook by TDMA, ADMA, FDMA, and CDMA
MULTIPLEXING ⇒ SHARING

First draft
ROELOFF 96/05/21
ENGLEWOOD, CO

See www.earthfiles.com

Footnote

The face on the cliff is but one of ~~possibly~~ numerous "geological faces" eg The Great Stone face in New Hampshire,..

Now we are seeing faces on Mars.

The Cydonia Face, imaged by Viking in 1976

The Libya Montes Face, imaged by

in May 2000

Code-Book faces — metaphysically intriguing,

~~even if~~ scientifically random

Raising questions about us rather

than about patterns of erosion

CODEBK01.WPD JUNE 18, 2001

HUMAN CODE BOOKS

Our attention these days is focused on the deciphering of the genetic code, the code that is the template for assembling molecular matter into living forms. In the wake of current genetic research, a second kind of code has been proposed, a code that constitutes a cultural template; made not of genes, [molecules], but of *memes,* [concepts]. Granting such a meme code, the gene code in multiple ways both enables and limits it. But the fact that there exist a variety of cultures infers that a meme code is not strictly determined by the gene code. That is, there is no one-to-one mapping of a meme code onto the gene code. [But possibly the differences in the gene code among different humans may be at the root of cultural differences.] In toto, these codes suggest a metaphorical interpretation, namely, their being part of a communication network.[1] That is, the human as recipient of messages: receiving physical form through genetic messages interpreted by the gene code book; cultural form through memetic messages interpreted by the meme code book, and we add here a third, receiving "ontological form" through epistemological messages interpreted by a "noetic code book". This is the code book that provides the template for all of our sciences, our religions, and our philosophies.

What is the nature of this "noetic code book" by which we build models of the world and attempt to find our place in it? What is the extent of its power and what are its limitations? Is it totally determined by our genetic and memetic code books, or can it escape from their enclosures? Are its interpretations valid, deceptive, both, or neither? [2] And how can it be tested? Do we possess some "meta-code book" that can give us answers to these questions? [Or show us that the enclosures are illusory?]

Geneticists are modifying the genetic code and creating alternatives that would not come into existence by ordinary evolutionary processes. It seems equally or perhaps more important that social and political scientists modify our memetic or cultural codes before we engage in self extinction. But prior to wise and meaningful modifications of either genetic or memetic codes, it is essential that we find suitable frameworks to guide and support any biological and societal modifications. Hence, it is most important that scientists, theologians, and philosophers seek some way to modify mankind's noetic code. Finding alternative epistemologies is critical to humanity's escape from every box that now encapsulates it.

---

[1] See Scrap 1996 # 39

[2]Our present code book frequently sees a message where there is no message [eg faces on the surface of Mars] And skips rare messages that may valid because of statistical improbability. Human reality consists of a portion of what really exists, but also of an unorganized collection of perceptions and conceptions with no basis in existence. [But which must be scrutinized]

FIGRND1.WP6 June 12, 1996

see also 1996 #24

FIGURE AND GROUND

Figure is not perceptable by figure without both having the same ground.

Figure is continuous and mortal, ground is granular and immortal.

Ground is Parmedian, i.e. changeless. It lies outside time.

Figure is illusory in the sense that it changes depending on the ground that supports it.

Paradox: Figure cannot exist without ground for figure seeks to exist for itself. Only that which does not exist for itself can be self existent. Such requires no ground for it is ground.

Figure has many names. Ground has many names. Urground is nameless.

A symbol is a figure that represents ground.

There exists a species of auto-grounds that interact to produce figure. e.g. white noise.

An auto-ground is Urground, ~~or~~ SAT. or Brahman

Vehicle & Cargo

We have Observer
Figure
Ground
Urground

Camelot
granularity ↔ immortality
continuity ↔ mortality

figure - Synchronic
Ground - Diachronic

June 12, 1996

The other day I was in communication with my friend TAMARGEN TROGDUHL who is earth significator for the 61 Cygni-ε Eridani alliance. (He has been in the earth watch business for over 180 years). I thought you might be interested in what he had to say about Wireless Week.

> HI AL, YOU KNOW WHAT IS MAKING MY JOB A LOT EASIER THESE ROT-PERIODS? IT'S THAT NEW WRITINFO WIRELESS WEEK. AFTER YOUR MAXWELL, HERTZ, MARCONI, ET AL, EARTH SURVEILLANCE NO LONGER REQUIRED OUR DISKSHIP VISITS. BUT THAT WINDOW WAS BRIEF. AS YOU KNOW, EMF CONFUSION EMANATING FROM EARTH BEGAN TO MOUNT. WE LOST THE PICTURE AND WERE AGAIN REQUIRED TO RESORT TO DISKSHIP VISITS. YOU EARTH BEINGS SEEM TO HAVE GREAT DIFFICULTY PROCESSING AND ORDERING INNOVATIONS. YOU NOW SEEM TO HAVE DISCOVERED A WAY TO EASE THE PROCESS BY DISSEMINATING TO ALL PARTIES A NEUTRAL MONITORING, IF THAT IS A CORRECT INTERPRETATION OF WHAT YOUR WIRELESS WEEK IS INTENDED TO DO. IN ANY EVENT THIS NEUTRAL MONITORING IS VERY HELPFUL TO US. WE ARE AGAIN GETTING A CLEAR PICTURE, NOT ONLY OF WHAT IS GOING ON IN A HIGHLY SIGNIFICANT SECTOR ON EARTH, BUT OF THE IMPORTANCE YOU YOURSELVES ATTACH TO ITS VARIOUS ASPECTS. (WE STILL THINK YOU BEINGS HAVE SCREWED UP PRIORITIES, BUT YOU ARE LEARNING). THANKS FOR TELLING ABOUT WIRELESS WEEK. STAY IN TOUCH.
>
> TG TD

Well, all I can say is that if you are getting that kind of reviews from extraterrestrials, you must be doing something right. The only rather curious thing is that terrestrials also seem to like it. I feel apprehensive when the local view seems to come around to the cosmic view. It means that we might soon be openly contacted.

Best, AGW

WIREWRY.LTR 96/06/12

PROTFLAG.WPG
1996 #42

429
429

June 14, 1996

Editor: I would like to comment on Commander Everett Alvarez Jr's essay on "Why Flag Must Be Protected". First let me say that personally I am in strong agreement with the Commander's feelings about the flag. For me, as for him, it stands for our values, sacrifices, and liberty. But I disagree on passing a Constitutional amendment to "protect" the flag. And this is why:

The flag is a symbol and symbols in general contain no intrinsic attributes beyond their patterns and colors. Other attributes possessed by symbols are the associations and feelings that we project on them. It is not in American tradition to legislate how people shall feel. To do so goes beyond curtailing freedom of speech, it would be an attempt to control thought. Such laws are enforceable only through the techniques of totalitarian prisons.

Furthermore, since no one can own the meaning of a symbol, who is to mandate what a symbol should evoke in anyone's mind? Take the example of the Confederate flag. How do people think about it? For many it has become a symbol of racism. For others it stands for the "pluribus" in our motto "E pluribus Unum". Must we pass laws to require agreement? and then condition attitudes as with Pavlov's dog, getting all to salivate when a bell rings?

It strikes me that the approach consistent with what this country is about is not to pass Pavlovian statutes, but for us all as Americans to come to respect each others symbols and our freedom to interpret them according to our individual heritages and traditions. Our diversity must become the opportunity for insights, not the excuse for oppression or violence. Those of us who have sacrificed in the service of our country, made that sacrifice for the continued liberty of all Americans, not for the right of some to impose their particular views on others. Once before an amendment (the Eighteenth) was passed to impose a particular view on all Americans. It had to be repealed. The Constitution was designed to protect our liberties, not to be used as a vehicle to take them away.

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FAXED TO PRESS DEMOCRAT
96/06/15

42
42 k

Petaluma

PD 96/06/19

Protecting a symbol

Editor: I would like to comment on Comm. Everett Alvarez Jr.'s June 14 essay, "Why flag must be protected."

First let me say that personally I am in strong agreement with the commander's feelings about the flag. For me, as for him, it stands for our values, sacrifices and liberty. But I disagree on passing a constitutional amendment to "protect" the flag. And this is why:

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Sebastopol

See 1995 #90 on symbols by Ouspensky

THINGS {Sensory attributes} + private subjective attributes
SIGNS – WORDS Precise meaning specific or defined
SYMBOLS thing + {subjective attributes}
IDOLS thing + {subjective attributes} + injunctions

Picture
Persons
Life
Ikon

Other Files 1991 # 52 Lese Majesty, 1991 #79 Compliance & Agreement
see PD 95/03/01 1994 #29 Secular Religion of America

A law against flag burning is another example of the switch from education to legislation from schools to prisons

Although it is futile to aspire to anarchy – because an anarchist is a citizen of highest understanding, largest identification and greatest compassion.

There cannot be anarchy because there are so few who have earned the level of being anarchists attained

SCICOM1.WP6 June 16, 1996 REV June 29, 1996

Also See Feyerabend
1995 # 92
See 1996 # 45
1996 # 61
1997 # 63

SOME COMMENTS REGARDING SCIENCE

TOWARD A LIBERATION FROM APOLLO

If it isn"t repeatable, it's not science.
If it is repeatable, it's not art.

Li Kiang

Before science, rounded people lived on a flat earth.
After science, flattened people lived on a round earth.

Li Kiang

Science suffers from several procedural agendas that restrict the breadth of its applicability. There are several areas of human experience for which the scientific method is not productive and even within those areas for which it is suitable, there are limitations to the extent of its successful operation. Some of these limitations are intrinsic to the scientific method, others are due to arbitrary metaphysical assumptions which are present for historical rather than logical reasons.

- First, the domain of science is restricted to those phenomena that occur with sufficient frequency and regularity to be repeatably observed or demonstrated. If results are always to be reproducible, there can be no science of the unique and very little science of the rare. One of science's basic tools, induction, falsifies phenomena of limited repeatability

- Second, the logic of science, Aristotelean deduction, is based on the law of the excluded middle: Everything is either true or false. Though facts can sometimes be true and sometimes false, such facts are usually ignored unless an explicit temporal gate can be determined for them.

- Third, the most important scientific validifier and measure of science's usefulness is predictability. Without predictability there is no test of science. But predictability depends on causal determinism, so to protect its metaphysical base, science proclaims a dogma of universal determinism. However, causality is one-dimensional and it follows that for many areas of experience, "You can't get there from here" by science. Of course, the idea, "You can't get there from here" is an absurdity in a connected, causal-based topology or metaphysics. But Gödel demonstrated that there exist places that cannot be reached by deductive or causal steps from a familiar or axiomatic base. In holding firmly to causality, science insists that all circuits be series circuits, parallel circuits are forbidden. Lately trouble has risen in connection with Chaos Theory which claims certain unpredictable systems are nonetheless deterministic. The historic link between predictability and determinism is now open to question.

Religion uses several approaches to a single subject.
Science uses a single approach to several subjects.

L.K.

Science is concerned with questions that can be answered
(∴ limiting its domain)
Religion is concerned with questions that cannot be answered
(∴ it shouldn't provide answers)

Science wants there to be one answer

Religion comes up with many answers.

Unanswerable questions supply the long range dynamic for the human spirit

- Fourth, the success of the analytic method has led to the promotion of reductionism to the rank of sacred cow. This limitation: the whole is equal to the sum of the parts, is being challenged by complexity theory which allows the whole to be greater than the sum of the parts, leading to emergence.

- Fifth, is the metaphysical assumption that the universe consists of one level, all is to be explained by the properties of matter in its many configurations. All explanations are to be horizontal. To posit more than one level, to allow the vertical, is to reintroduce superstition into the world.

- SIXTH, SCIENCE DOES NOT DEAL WITH QUALITY, ONLY QUANTITY, THAT WHICH CAN BE MEASURED See Huston Smith : Forgotten Truth

REGULAR REPETITION [SUNRISE, ECLIPSES]	DETERMINISTIC AND PREDICTABLE
IRREGULAR REPETITION [EARTHQUAKES, WEATHER]	DETERMINISTIC BUT UNPREDICTABLE CHAOS {really deterministic?}
NON REPEATING [3 BODY PROBLEM]	DETERMINISTIC BUT COMPUTABLE
NON REPEATING [N BODY PROBLEM]	DETERMINISTIC BUT STATISTICALLY PREDICTABLE
RANDOMLY REPEATING	RANDOM AND UNPREDICTABLE
UNIQUE AND RARE	BEYOND SCIENCE

- SEVENTH, MODE OF ENTIFICATION: LOCALIZATION FORCED TO INVENT FIELDS
- EIGHT, SENSORY INPUTS ONLY

Is there an alternative approach?

Years ago Lance Whyte said the paradigm of the future would be **pattern.** Pattern which is multi-dimensional will replace causality which is one-dimensional. This approach was naturally adopted by anthropologists such as Gregory Bateson, who have had to deal with parallel "circuits". Patterns emerge from the juxtaposition of several systems. Juxtaposition and parallelism are to pattern epistemology what induction and dedluction are to scientific epistemology. There is already a long standing example of pattern inference in Law. This is circumstantial evidence, a multi-dimensional pattern that provides a picture of what happened even when certain jig-saw pieces are missing. On the other hand, linear evidence is halted anytime that one of the links is absent. This is also true of mathematical proof, but Gödel goes further and says even with no links missing, all available theorems do not complete the set of all possible theorems. Causality not only cannot exhaust possibility, it cannot exhaust reality.

Question: what is the relation between the non-linear (Chaos) and multi-dimensional?

Science is the π-view of the world; Pattern is the ϕ-view of the world.

Li Kiang

Before we can now move ahead we must first be liberated from scientism. [Einstein quote] We must unlearn the dogmas implanted in our thinking. [See Huston Smith: Forgotten Truth]

But science itself is now performing the required liberation [Karl Popper quote]

Rewrite of Dumatch

EXPLCREA.WP6 December 9, 1993 rev: June 18, 1996

EXPLORATION AND CREATION

TWO VARIETIES OF EXPLORATION:
1) The Search for the Common, the General, the Ubiquitous, the Repetitive, the Reproducible, and the Universal;
2) The Search for the Individual, the Unique, the Special, the Rare, the Miraculous, and the Possible.

We usually associate science with exploration and usually with type 1) exploration. But science is also concerned with such matters as the varieties of organisms, rocks, stars, atoms, particles etc. and in that sense is doing exploration of type 2). But science collects "2)" in order to do "1)" that is, science's ultimate focus is on the unity underlying diversity.

In order to develop a unity underlying diversity, we proceed by constructing an infrastructure or organizing schema. While this is essential for 1), it is also useful, but difficult for 2). Ofttimes 2) must remain a "miscellany file" for a lack of sufficient elements to suggest a schema. Two levels are involved: The collection level, and the organization level. The collection level gives us facts and data, the organization level gives us information and interpretation, i.e. what we call knowledge. An organization schema is derived from the data with the help of imagination, afterwards facts are interpreted with the help of the schema and are not solo, but become associated with interpretations. The schema becomes a 'ground' against which the figure of facts are perceived. Since the schema is a construct from our experience, it does not have the same validity as do its contents.

The construction of a schema requires imagination. Einstein said that imagination is more important than knowledge (data), and Feynman said that too much knowledge is paralyzing. Both of these statements infer that the construction of unifying frameworks is held to be the essence of scientific creativity. It is often asked how much of our knowledge is from the world and how much of it is projected on the world. A component of the answer to that question is that the data is from the world, while the schema is projected onto the world. Exploration is determining what is already there, creation is giving it an organizing framework.

Returning to 2), is it important or possible to find a framework for organizing the unique? Is it not more important to savor the uniqueness than to try to classify it? Sometimes a scientist focusing on "2)" does so not to build a framework nor to find ultimate unity, but to relish uniqueness for its own sake. Here the work of Loren Eisley comes to mind. But delving into uniqueness in the manner of Eisley is not regarded as science. It departs from the purely objective and focuses on what happens to the observer in making the observation. Quantum mechanics tells us we cannot make an observation without affecting what is observed. Is it not also true that we cannot make an observation without affecting the observer? In this sense, in exploring the world we are recreating it, and not only the world, but we are recreating ourselves. I would conclude that exploration which focuses on savoring the unique is an act akin to what has been traditionally called worship. Science can become a spiritual path when we are willing to let our exploration change us. The interface between exploring and creating, collecting and organizing, knowing and imagining, defining and evaluating, may be the same interface as that between recollecting and recognizing, between intellect and spirit.

1996 #43
1995 #92
1996 #61

SCICOM2.WP6 June 18, 1996

MORE COMMENTS ON SCIENCE

Localization Chauvinism
There is a great prejudice that localization must be an attribute of entity. Sensory derived attributes have given us the idea that all things that exist cluster their attributes in close spatial (and other?) proximity. Localization chauvinism is behind the astronomer's lecture on human insignificance based on the ratio of human scale to trans-galactic scales. This assumes that a human is a localized entity. The nature of quantum reality is beginning to erode our built-in localization mind set. Perhaps the internet will also contribute to its demise.

"All knowledge refers to items of experience, but it is an open question whether all forms of experience are public."
-----?

"The cardinal virtue (E and inhibitor) of the scientific method consists, above all, in its stubborn refusal to countenance expressions which have no empirical referents." i.e. are non-sensory

The more unexpected an event, the greater its information content. Thus rare events contain more information than common events. Science concentrates on the repeatable and reproducible, that is on the most common events, the domain of least information and of greatest entropy. What we must conclude is that science is about systems in or close to thermodynamic equilibrium. This is why science projects determinism onto the world.
Is this not somewhat close to Ilya Prigogine's conclusion?

Ernst Mach on Empiricism The Age of Ideology pp248-249

1. The thesis of empiricism: Sensations alone provide the real data or stuff of knowledge. The corollary of phenomenalism: The only terms of reference allowed are those which, directly or through definition, refer to sensations.
2. Auxiliary concepts may be admitted to scientific discourse, but only for the purpose of organizing hypotheses into a coherent system. [The pragmatic principle of economy]

{[For the special case of science this concurs with Wilson's two levels of epistemology: the data of experience and the unifying schema. see, for example, SCICOM1.WP6, the difference is that Wilson allows also for non-sensory experience, such as mathematics.]}
The basis of Mach 2 is the property of mathematics to represent the sensory world.

Can we describe the world from outside - i.e. by detachment, by objectivity.
In stepping outside the scientist immediately loses access to the whole seeing only the surface, so to speak. The view of the world that scientific objectivity affords is only a surface view of the surface. It wonders about the "heart of things" but precludes ever reaching answers,

It is not scientific unless it is reproducible by our intent
But reproducibility infers intent, the intention to reproduce the results
These phenomena that are beyond the intent of the scientist are thus discounted. They must say that there does not exist any intent any where except that which is like theirs

Non-repeatable events may arise from the intent of the Other

See Letter to SK of Nov 14, 1996

To dismiss the idea that non-human intent may be a component of the universe is quite arrogant - hubris
But in effect the insistance on reproducibility is saying just that:

If it is not reproducible it is not acceptable to science.

But, an act to make reproducibility infers human-intent.

∴ We accept what fulls to human-intent and reject that which is not susceptible human intent.

But {repeatability} > {reproducibility}

And we, for the most part structure our world view on the repeatable, not just the reproducible.

But even here, we are highly selective.

We exclude the unique!

i.e. We focus on the parameters that have been homogenized

(Y)

THE GREAT PYRAMID

SOME CONCLUSIONS

APOTHEGMS

After exploring the various geometric relationships built into the stones and their arrangement and reviewing the contextual factors of the pyramid, its location and size, the following general conclusions seem waranted:

The pyramid is an encyclopedia in stone containing several basic, mathematical, physical, and metaphysical statements, which can be read using a code-book based on the universal laws of mathematics and physics.

The pyramid is a model of the cosmos, replicating many of its properties that have been discovered in later times by sensory and instrumental means. How the designers of the pyramid acquired this knowledge is unknown to us. cf story of Tibetan monks at Livermore

The pyramid is a cosmic metaphor. Hence, the statements that can be made about the pyramid are also statements that can be made about the cosmos. In being a model of the cosmos, the pyramid is a sacred place, inspiring awe and wonder in all who interact with it.

The pyramid makes the following statements:

- The ultimate or UR reality is number. [cf Pythagoras] bequeathed to Pythagoras
- Both the cosmos and the pyramid can accept a large number of different projections. All of which are correct.
- Both the cosmos and the pyramid are therefore constructed of many facets. Which facet is manifested depends on the initial assumptions and observations that are made. [cf quantum mechanics] see q.m. node p 466
- But one facet emerges at a time, depending on the path chosen. [cf complementarity]
- A slight change in the initial assumption results in a different facet. [cf chaos theory]
- A different pyramid would result in a great loss of facets. [cf anthropic principle]
- The "Total Pyramid" cannot be grasped by generalization, only by inverse defacetization.
- The cosmos and the pyramid are both located at a high density confluence of simple algorithms.

PYRCONCL.WP6

(7)

- Existence occurs where the density of alternate possibilities is a maximum.
- The cosmos evolves so as to maximize its options and its potentialities. at interstices maximizing possibility for uniqueness [contradicts Mr 2° Law]
- The cutting edge of a viable system seeks a region rich in alternatives.
- Ratios and proportions are purification devices.
- The designers and builders of the pyramid possessed a much greater mathematical sophistication than we have supposed.
- The pyramid speaks in two levels, to π people and to ϕ people.

look up Martin Gardiner
in $\pi + \varphi$
Dr. Matrix p163

Pelagius was tried for heresy in the same year that Hypatia was murdered,
414:15 AD
c. time of Hypatia & Theon see "Numbers" p 91

π	Petron	Roling Drum
Φ	Philar	Knew More
π-Φ	Polyphanom	A critical mass of knowledge attracts even more

METAMETHIUS

~ GUP ⟷ GEP
Truncation is a formal homogenization process
What role does the truncation of the Pyramid play?
It melds the 8 unique faces into a complexity

Which path does the photon take? It takes all possible paths.
(See "Secret Melody" re quantum mechanics)
Zwicky felt we should adopt this q.m. approach to the world
It is displayed in the pyramid. It takes all
possible paths to the apex.

THE FIVE ROLES IN HUMAN ORGANIZATION

There are five general functional roles in human societies. Although there are many sub-categories, such as guardians or protectors in the follower category, these are not amplified here. Instead examples of the major role categories are given for various cultural components. In addition a Jungian type is assigned to each column. Whle Jung predicated his types on personality givens, the types assigned here are on the basis of personality attributes emphasized in each role.

	FIRST COLUMN	SECOND COLUMN	THIRD COLUMN	FOURTH COLUMN	FIFTH COLUMN
CATEGORY	THE SCOUTS	THE GUIDES	THE LEADERS	THE FOLLOWERS	THE REBELS
GEOGRAPHY	EXPLORERS	NAVIGATORS	SKIPPERS	CREW	MUTINEERS
RELIGION	MYSTICS	PROPHETS	PRIESTS	SHEEP	HERETICS
ART	ARTISTS	PATRONS	CRITICS	PUBLIC	POETS
SCIENCE	EXPERIMENTERS AND OBSERVERS	THEORISTS	PROFESSORS	STUDENTS	CREATIONISTS
CAPITALISM	ENTREPRENEURS	LAWYERS AND ACCOUNTANTS	CEO'S	WORKERS	STRIKERS
MARXISM	PHILOSOPHERS	REVOLUTIONISTS	COMMISSARS	MASSES	COUNTER REVOLUTIONISTS
U.S.A.	JOURNALISTS	LOBBYISTS	POLITICIANS	THE PEOPLE	MILITIAS AND FREEMEN
JUNG	NTSF	NTS	TS	FS	FN

The "N's" are trying to break out of cultural boundaries either by pushing out the frontiers or by protest and revolution. They want to know what possibilities exist or what will work.

The "T's" are seeking how to organize the various paths, arrangements and ways of doing things into a comprehensive whole that would allow selection of optimum procedures.

The "S's" are the here and now people, facing the practical problems of the "real world". They are pragmatists having routine specific tasks to perform.

The "F's" all suffer. They are either long suffering (FS) or short suffering (FN) since most forms of feeling, anxiety, fear, yearning, anger, carry a legacy of pain.

5COLUMN.WPG 96/06/26, rev 96/07/24 See 1993-16 1996-53

There should be a vertical Jung column in addition

	1	2	3	4	5
TECHNOLOGY	INVENTORS	MARKETERS	BILL GATES	INVESTORS	BROKERS
MILITARY	INTELLIGENCE	STATEGISTS Ludendorf	GENERALS Hindenburg	TROOPS	DESERTERS

Nazism: No Column 1., Only Hitler acting in columns 2 and 3

Should there be another column for victims & scape goats or divide column 5 into 2 parts

There are also 2 columns for the SCOUTS
The EXPLORERS - WHAT IS THERE
The CREATORS - WHAT THE SCOUT MAKES?, OR SELECTS?

ART - CREATORS
SCIENCE - EXPLORERS
MATHEMATICS - ? BOTH?

A DREAM July 1-2, 1996

I am trying to bring my space into order. It is appears to have been abandoned and is encrusted with dirt. I begin by getting rid of some metallic odds and ends, then scraping away the dirt. It is a lonely task, I seem to have running through my head overhearing a conversation of Donna with someone telling how I would walk this great distance every day at noon in the hope that she would have lunch with me. She never did. And she was telling the someone she felt sorry for me. But she never came out and told me why she would not eat with me.

Then I realized that my space was on the outside of a high cyclone fence. On the inside I saw all of my friends Don, Eleanor,.. they were organizing things and making plans, and I realized that I was shut out away from them. But I finally realized that they were enclosed in a small space and that I alone was on the outside free to explore the larger world. Why should I want to be inside the fence? Because it is so lonely on the outside.

The price for community is to be enclosed in a limited space. The price for the freedom to explore is loneliness.

THE SPECIES OF MULTIPLEXING

Multiplexing is the sharing of a channel. This can be done 1) through sending messages on different frequencies, 2) locating in different areas, 3) sharing time, and 4) by encoding. In communication technology these four methods of multiplexing are sometimes labeled:

1	FDMA	FREQUENCY DIVISION MULTIPLE ACCESS
2	ADMA	AREA DIVISION MULTIPLE ACCESS
3	TDMA	TIME DIVISION MULTIPLE ACCESS
4	CDMA	CODE DIVISION MULTIPLE ACCESS

All sharing involves multiplexing in one form or another. Bathrooms are time multiplexed, beds are area multiplexed, kitchens are code multiplexed (in the sense that two chefs will not be preparing the same foods), and furniture is frequency multiplexed (in the sense of its rates of movement compared with ours).

It has been argued that we share the world with other beings through different modes of multiplexing. For example, we share with wild animals through area multiplexing, with tame animals through code multiplexing, and with short lived insects, long lived trees, and the rocks and hills through frequency multiplexing.

THERE IS ALSO SCALE MULTIPLEXING [Part of ADMA?] Humans & Ants

In the spirit of science fiction, ~~addition~~, we can imagine beings that share our world through frequency multiplexing by racing through our cities with such speed that we do not even perceive them. And beings of such different form (code multiplexed) that we do not recognize them as beings. And lastly, through time multiplexing we may share the world with beings of whom we are not even aware, ~~we~~ taking turns with them of being on stage and off stage, i.e of existing and not existing.

We must also ask the question, "Are there other modes of multiplexing than the four presently recognized?"

Multiplexing for Ontologies

EDMA Epistemology DMA } selects a facet of the world

SDMA Scale DMA cf. wavelet theory
we share space with stellar systems, galaxies, ...
just as we share a kitchen with ants

MDMA - a drug

Add Scale SDMA

MULPLEX.WP6 96/07/20

The ticket lines at the de Young Museum

Purchasing Tickets: ½ hour groups of ticket holders

FDMA ⟷ TDMA

MIX

97/02/07

The additional species of multiplexing are really not new.

EDMA is a form of CDMA

Epistemology code

ODMA is a form of ADMA

Dimensional Area

SDMA is a form of FDMA

Scale Frequency

What other forms of sharing are there?

	Multiple	Single	
ZDMA	ADMA FDMA are alike separate Zones or channels (Frequency zone) Scale - size zone or range	CDMA one channel TDMA one channel	MDMA Mono

COMBINATION

but ZDMA is a channel selector

and is ∴ a combination

of CDMA and ZDMA

ie. CDMA selects a time interval

FDMA selects a zone

ZDMA	MDMA
ADMA	TDMA
ODMA	CDMA
FDMA	

← EDMA →

THE ASTRONOMY OF SILENCE

Astronomy is the science in which we do not speak, only listen, listen to the starlight. It is true that we listen selectively, and that we understand only part of what we hear. But in having to remain silent we are not so likely to confuse our own voice with the voice of the cosmos. It is curious that with access to such purity, we nonetheless seek to extend our prejudices to encompass the whole universe by assuming that as it is here it is so everywhere and that as it is now it will always be.

Are we really ready to encounter the stars? Until we realize our identity with our parents, the Earth and the Sun, and know all the members of our family, we have not the wisdom to meet with any who may dwell beyond our home. Only when we come into oneness with all that live here, all that here support, all that endure in our midst, will we be able to hear and respond to the wondrous variety that inhabits the Cosmos.

It has been asked, Why have we not been contacted? Perhaps we are unprepared to know what lies beyond. Is it that we are not ready to receive, or is it that we have nothing to give? So long as we are intolerant and uncomfortable with local variety, we are not ready to encounter true variety. So long as we seek to render the world in our own image, we are not ready for coexistence with pluralities of images.

Only through the astronomy of silence, hearing what the starlight is seeking to tell us, will we reach the maturity for cosmic companionship.

50a ASTRONOMY, WP6 96/07/24
96/09/16
97/04/10

by TAMARGEN TROGDAHL - 61 CYGNI

See also 2000 #55

PLENUM AND PEACE

In several languages there is an interesting use of the same word for both totality and peace:

In Hebrew the word, שלם ,depending on what vowels are inserted, means either **whole,** shalem, or **peace,** shalom. The Russian word, МИР , (Meer) means both the **world** and **peace.**

What are the roots of this homonymous association of totality, the universal, the cosmic, with peace, tranquility, repose? It appears that there is some linguistic vestige of an ancient wisdom which recognized that peace is never to be found in a part, only in the whole; never in exclusion, only in inclusion. Chuang Tzu said, "All creation could not disturb the equilibrium of the sage, hence his repose". Is this because the sage recognizes his identity with all creation?

Upon reflection, this equivalence of totality and peace seems obvious. Strife and conflict occur between parts, usually parts that deny the whole to which they belong. Strife within the family, within the community, within the state, within the global community, comes from emphasizing the part, ignoring the whole. And so it is even within ourselves. We are not internally at peace until our competing desires and revulsions are subordinated to the wholeness of our being. We are body, mind, spirit, and perhaps much more, but until there is harmony among these parts, there is no repose.

Only in the Oneness of the whole is there peace. We have glimpsed this in the message of the Christmas angels, in the submission to the Will of Allah, in the vow of the Bodhisattva for the enlightenment of **all** sentient beings.

PLENPAX.WP6 96/08/22

We find peace in a garden
in a temple
in a grove
They are enclosures - symbolic of a whole

It is paradoxical
that we (in order to) must be open - vertically, inwardly
(we must) but have closure - horizontally, outwardly

The bread is closure
The wine is openness

EVOLUTOI.WPG 96/08/23

EVOLUTION: THE LARGER PATTERN

For Darwin to have entitled his book, "The Origin of Species" was a great misnomer. While his form of evolution can nicely account for gradual adaptive changes that take place in a species due to contextual changes, it says little that is substantive regarding origin itself. Innovation is not accounted for. [We are here distinguishing between innovation and modification.] Whether origins are built into the life structure and process through some self-organizing principle--auto poesis; or come from some external source is presently not known. Fossil patterns seem to show that origins occur only at singular moments in time, usually after great extinctions. This would indicate that potential, seeds so to speak, ~~is~~ are always present, but can only develop when inhibiting forces are removed. A great extinction removes the inhibitors allowing the seeds to sprout, as when the mammalian seeds sprouted after the termination of the dinosaurs.

The stem cell is always present

cf Gurdjieff

But there are other anomalies. In the Darwinian model success leads to survival, failure to extinction. This is hardly what is observed in cultural and societal evolution. Success leads to stagnation, not evolution. Success is a trap resulting in stasis and an all out effort to preserve the status quo and prevent further change. Only an extinction can allow evolution to resume, as with the cretaceous-tertiary dinosaur extinction. Failure, on the other hand, may lead to self extinction, but may also lead to change. So it is those species that are not successful, but are teachable, able to change, that are the ultimate survivors.

cf 60's booklet on losers

We conclude that success is a trap, but that failure does not entrap us for failure can bring the challenge to learn and change. The cutting edge of evolution is not with the successful, but with the failures and only with those failures who are able to change. In the long run it is not the well adapted, the successful, who survive, it is the readily adaptable.

We look about and see many institutions that have stagnated. The fact that they are here and have stagnated implies, however, that at some earlier time they must have been a success. For example, up to our time Science has been successful, but it has become a trap. And if to continue, the future vehicle of human knowledge cannot be science, but some new epistemology more inclusive and more adaptive. As has been said, the human spirit will always escape from the traps that the human intellect creates for it. The essence of this human spirit contains something paradoxical: It is capable of a kind of success that is able to transcend success. It has discovered evolution's greater pattern.

also the military, some religions, and maybe the law as practiced

WHITEHEAD QUOTE

cf Gould's note: on the subsequent highest species are never descendants of a previous highest species.

920181.WP6
96/08/23

FIVE LEVELS OF RELATIONSHIP

The sage Li Kiang once said that human relationship to Heaven and relationship between humans involved five levels. According to his discernment these levels could be named:

I. Master-Slave
II. King-Subject
III. Teacher-Student
IV. Partners
V. Lovers

I. Interpreting for our century Li Tzu's five progressive steps in relationship, we note that those of Class I are intended to be permanent. The relational factors of absolute authority, absolute inequality, and perpetual dependence are never to be questioned nor altered. The rules governing the slave are not applicable to the master. However the master may at any time make or break rules according to whim.

Secretary' Royal Vic

> "There is great merit in the generosity of a master when he is kind to a slave, but there is greater merit in the slave when he ignores the wrongs which he suffers and cherishes kindness and good-will to all mankind. He will cease to hate his oppressors even when powerless to resist their usurpation, and will with compassion pity their arrogance. Where there is much suffering, there is also great bliss: –Sakyamuni

The vehicle that transports this class of relationship is unchecked **capriciousness.** In the Age when this view of Heaven prevailed (Mythic and Pentateuchal times), the gods were beheld to be vengeful, cruel, and capricious.

II. The second class in Li Tzu's pentapleth, though also intended to be permanent through its dogma of non-transcendable inequality, allows for amelioration of absolute authority through petitioning for alteration of rules. However, as in Class I, the rules for King and subject are not the same, but the relationship permits the emergence of mutual concern and respect. Instead of total dependency, there is exchange, such as security for services. (and punishment for violations). In our times Class II continues to be operative in some landlord-tenant relationships, in some employer-employee

5LEVELS2.WP6
96/08/27
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relationships, and in many marriages. However, the success of revolutions has resulted in decreasing its applicablity to the state-citizen relationship. Whereas non-compliance on the part of a subject has long been illegal and cause for punishment, this is now balanced by malfeasance on the part of the state rendering the state illegitimate and subject to recall.

> Church Christianity (and many other religions) have historically been a Class II relationship, between a priest category representing a Shepherd and a subject category of sheep.

The vehicle that transports this class is **stability** achieved through balance. The Class II view of the relationship to Heaven is one of access through an intermediary endowed with possessing divine right.

III. Beginning with Li Kiang's Class III, relationships are no longer permanent and static, they must be evolving and dynamic. In the case of Teacher-Student, the initial relationship may be highly unequal, but progresses by raising the student to the level of the teacher, or even beyond. Information and energy in the forms of knowledge and skill are passed from teacher to student. In this process, there is evolution from blind obedience to self discipline and from strict authority to shared discovery. Finally there is liberation: "You are now on your own. Go forth to a new and higher place." Ideal parent-child relationships usually follow this form.

> Both the Buddha and the Christ taught this as the proper relation to Heaven. Sakimuni admonished Ananda: "Therefore, O Ananda, Seek salvation alone in the truth. Those who shall be lamps unto themselves, seeking their salvation in the truth alone, it is they who shall reach the very topmost height."; Jesus said to his disciples: "He that believeth in truth, the works that I do shall he do also and greater works than these shall he do." [John 14:12]

A central question is what is really transmitted from teacher to student. It is more than information, more than inspiration and energy, it is more than mission. It is liberation, the ability to think independently, the ability to make discoveries on your own. And finally to hold a seat at the table of deliberation where each concept triggers another concept and equals glimpse the Grail of Truth. The vehicle that transports this class is **fulfillment.** In academia, the military, and many corporations a form of Class III evolution is followed from apprenticeship through mastery to ultimate replacement.

IV. Class IV relationships take many forms. Some are permanent, some are ad hoc; some are static, some dynamic. A partnership may be between equals or unequals, but is usually formed to create a whole capable of doing what the parts alone cannot do. Some are based on shared visions and goals; others on shared interests and activities, having things in common. It is in this class that most marriages are found. The vehicle that transports this class is **sharing.** The view of Heaven of this class is that of shared responsibility with Heaven. It is the view of the parent and the prophet, the view of the crusader and the missionary.

V. Class V emphasizes that lovers are far more than just partners. The primary impetus, goal and vision of lovers is to attain oneness, be this with another human, with the divine, or both. Equality or inequality is not a consideration, nor is liberation. In the spiritual mode lovers seek realization through intimacy, mutual understanding and mutual support. Lovers project themselves into each other to the extent that each contains the other. It is then possible for individual selves to dissolve. In a material truncated mode the great transformational power of oneness is briefly glimpsed in the sex act but with a temporary physical satisfaction replacing a step to realization.

> The achievement of oneness is the only possible mode of no-relationship. In all other cases an identity is related in one way or another to everything else in the universe from the tiniest insect to the most distant galaxy. But for the enlightened Sage there is no Sage and there is no Other therefore no relationship.

In this class the vehicle is **surrender.** The view of Heaven is the view of Heaven.

NOTES:

Nothing has been said of bonding, but in each of the five categories of relationships an element of transcendental permanence is possible: A purified essence of the postitive aspects of the relationship deposited in eternity.

Neither has anything been said of such relationships as enmity and rivalry. For the most part competive and non-symbiotic relationships fall in class IV of partners. These are negative, but are nonetheless partnerships, partnerships of co-dependency which would cease without opponents.

THE ONCE AND FOREVER ISSUE

At the basic level this is the issue that arises in having to give up what we want in order to get what we need. It is met on many levels and appears under many guises. On a global scale it involves partial surrender of sovereignty in exchange for participation in the benefits of world trade. Within national borders it involves limiting cultural autonomy in order to have market access. On the individual level it involves giving up discretionary time in order to make a living. In brief there is a necessary trade off involved: political independence for the fruits of economic interdependence.

Such trade-offs are as old as the Garden of Eden, where one had to choose between limits imposed on behavior by the Boss and exile to sweat and work. Today the trade-off is sweat and work or hunger. John Donne noted that no man is an island, and all are therefore subject in some way to a trade-off of time and freedom for economic participation. The trade-off becomes tautological when we acknowledge that even the hermit hunter is required to give time to hunting in order to eat. But the trade-off is not so tautological when it takes the form of an Iraq or Chechen wanting both a dysfunctional political autonomy and economic participation.

Prior to World War I many ethnic groups sacrificed cultural and political autonomy for the economic advantages of belonging to tariff free trade entities (e.g. The Austro-Hungarian Empire) With diminution of economic protectionism, the case for cultural autonomy began to prevail. The doctrine of political self-determination dominated the thinking at the peace table at Versailles with little consideration for the economic consequences. The issue surfaced seventy years later within the former Soviet Union and it proved impossible for the centralized authority in the Kremlin to stand against the forces for self-determination. The subsequent economic costs have been major.

Can we understand why freedom and economic optimization have become adversarial? What is at root in this issue~~?~~want versus need? Economic optimization has developed around the benefits of size. Are these benefits implicit or do they depend on certain arbitrary practices? Has the entire issue been distorted by the experience of the tilted playing field of colonialism? Answers to these questions may prevent future wars. Certainly the issue has been the cause of past wars.

ECOPOL.WPG 96/08/31

REF. PAUL JOHNSON: MODERN TIMES. p.

Sep 96-63

AGES OF AGES

Human schemes of reckoning time are usually arranged through counts of cycles that have occurred since some event that is considered exceptional or unique. Time from the Big Bang, which is usually considered to be a unique event, is measured in terms of billions of earth year cycles. Geologic time is usually measured from the formation of the earth, estimated to be some 4.5 billion years ago, and, depending on temporal resolving power, is sub-divided into eons, eras, periods and epochs. Historic time is usually measured from the rule of some great king who made important changes and is commonally divided into dynasties. Today's scheme is to reckon time from the supposed birth date of a great teacher, Jesus of Nazareth. We might say that the last 2000 years have belonged to the "Christian Dynasty".

The origin of a period, epoch or dynasty, and the time considered to be the beginning of a cycle, such as January first taken to be the beginning of the yearly cycle, are much the same except that epochs and dynasties may have quite different durations whereas years are all of closely the same length. How are these origin dates or beginning times selected? As mentioned they are usually associated with some great change or unique event. In recent years geologists have found that the beginnings of various periods or epochs are frequently associated with great "extinctions" and their ensuing "radiants", such as the cretacious-tertiary extinction of the dinosaurs and subsequent radiant of mammalian life, that occurred some sixty five million years ago. Certainly, whatever the cause, a mass extinction of species and a radiant is a major event, and is a quite proper marker for a sub-divisions of time.

What about historical time? The Bible and the Mythic accounts of many peoples point to an extinction that occurred a few millennia ago caused by a great flood. Little of the accumulated knowledge and wisdom of the cultures that preceded that time has come down to us. (To assume that little came down because there was little in the first place is a bit of temporal chauvinism, which in our times is required to support our dogma of progress.) While the flood and pre-flood precede dated historical records, we do know of a cultural radiant that occurred in recorded times. This was the great radiant that occurred about 600 B.C.E. We are not well informed, however, concerning the extinction that preceded it.

Some scholars ~~Occultists~~ have used the position of the vernal equinox in a zodiacal zone ~~to~~ delineate an age. Precision aside, there is some convenience in this practice. We are now living in the so-called Piscean Age, and we may for purposes of identification associate the beginning of the Piscean Age with the great cultural radiant of 600 B.C.E. This is an age apparently now

ending. Although when in the midst of an event it is difficult to place it in proper perspective, we do seem at the present time to be living during another great cultural extinction and radiant. Following the precession of the vernal equinox, the age now beginning has been appropriately labeled, the Aquarian Age.

The beginning of the Piscean age was marked with two kinds of activity: 1) A radiant of new ideas, practices, viewpoints and 2) a summarization of the learning and wisdom of what had gone before. Under the first activity, we have the teachings of Lao Tze and Kung Fu Tzu in China, the insights of Sakyamuni Buddha and Maha Vira in India, the real beginnings of mathematics and science with Pythagoras and Thales in Greece, and other important innovations in Persia, Egypt, and Mexico. Under the second activity, we have the writing of the Upanishads and the Bahgavad Gita in India, the first inscription of the Old Testament by Jews in exile in Babylon, and the recording of the mythic traditions of Egypt and Greece.

Jaspers' Axial Age

.....

Notes:

A certain parallelism is occurring in our time. There is a radiant of innovation and **we are now called to summarize the learning and wisdom of the past age.**

We are not clear on the nature of the extinction that took place in the sixth century B.C.E., but we can see some of the extinctions taking place today.

Nietzsche's "God is dead"

World War I, end of kings, coming of democracy, end of faith, coming of science, end of church, coming of ?, end of plenitude, coming of squeeze, end of frontier, coming of space, end of resources, coming of pollution, end of boundaries, coming of the internet. etc.

Cross dialectics as mechanisms for extinction.

Arran Age Myths Troy Hermes Ahvrdha Siva Krishna Uranus Chronos Zeus

RADIANT2.P51 DISK EMERGENCE 12/09/80
06/05/82
02/29/88

THE RADIANT OF 600 B.C.

Some 60 million years ago an event of tremendous impact occured on earth, frequently referred to by geologists and paleontologists as the "Cretacious-Tertiary Event". The fossil records show that scores of species suddenly became extinct, including the families of great dinosaurs. And following this catastrophy occurred what evolutionists call a radiant, the near simultaneous appearance of a large number of new species. The Cretacious-Tertiary Event constituted a major discontinuity in the evolutionary patterns of the biological history of the earth. In recent years a plausable explanation of the CTE has been forthcoming. Based upon the almost world wide presence of an anamolous thin layer of iridium at the cretaceous-tertiary interface and on the rarity of this element on earth and its greater abundance in meteorites, it has been surmised that the CTE might plausibly have been caused by a collision between the earth and a small asteroid. If this indeed be the case, then extraterrestial interventions have played as significant a role in bio-evolution as have the on going processes of natural selection and adaptation.

But the rock records show that there have been other radiants in paleo-history. We do not know whether they were also preceeded by asteroidal collisions or by some other terrestial cataclysm of global magnitude, or by any geophysical catastrophe at all. What is significant, whatever the cause, is the near simultaneous multi-appearance of new species during relatively short spans of history. The emerging species may subsequently be gradually modified through various kinds of interactions over millions of years. They may even become extinct. Evolution thus appears to involve two distinct processes: Emergence of new species, a rapidly occuring short time span phenomenon; and modification of species through selection and adaptation, a slow long term process which cannot of itself account for the origin of new species.

Cultural history exhibits some of the same phenomena found in paleo history. In reviewing the course of mankind's cultural development, not surprisingly, we again find the phenomenon of the radiant. Ideas and artifacts, whether or not they have fallen into desuetude, may suddenly be replaced by a new set of ideas and implements. While some of the old may survive to take a place alongside the new, all of the ideas--old and new--are gradually modified and refined until their relationships are adapted to a new order. The significant similarity between bio and cultural evolution lies in the fact that the process is one of simultaneous emergence of many new elements, rather than in sporadic innovation.

A cultural radiant, not unlike the cretacious-tertiary bio- radiant, seems to have occurred in the sixth century before the present era. There does not seem to be any identifiable global catastrophy associated with this incidence of cultural emergence, but an event of great psychological impact undoubtedly occurred between 600 and 500 B.C. We need look only at the spectrum of great innovative thinkers, all alive during this period, to validate this point.

THE 600 B.C. RADIANT
(All dates are B.C.)

ZARATHUSTRA	PERSIA	630-553
THALES	MILETUS	624-545
ANAXIMANDER	MILETUS	611-546
LAO TZU	CHINA	604-531
MAHAVIRA	INDIA	599-527
ANAXIMENES	MILETUS	586-526
PYTHAGORAS	SAMOS	581-497
SIDDHARTHA GAUTAMA	INDIA	563-483
KUNG FU TZU	CHINA	551-479
HERAKLIDOS	EPHESUS	544-483
DEUTERO ISAIAH	ISRAEL	c 540

Also Contemporaneous with the above, were the Founders of the Six Schools of Brahmanical Philosophy and the Sages of the Upanishads, and the Ramayana was reportedly written about this time (510 BC), all in India.

This was the era of many of the important Hebrew Prophets and the first commitment of the Bible to writing in Babylon and in Israel In the New World the period around 500 BC saw the rise of the Zapotec culture, the first advanced civilization in the Americas, at Monte Alban in southern Mexico.

No subsequent period of equal time, including even the European Renaissance, has produced so many great germinal thinkers and ideas. Only in the present century do we find anything comparable in innovative thought.

D

Pythagoras and Planck

Back at the beginning of the present age around 600 B.C.E. Pythagoras felt that the natural integers themselves should suffice for constructing the universe. He was set back and dismayed when real numbers like $\sqrt{2}$ intervened. Even before his death the continuum of real numbers began to take over and prevailed until the beginning of the 20th century. Then at the beginning of the present age, Max Planck found that discreteness must be re-introduced. The continuum had failed. Pythagoras was justified when Planck showed that basic physical realtionships were governed by discrete, not contiuous, quantities. Of course, Pythagoras' misinterpretation was that it was the integers themselves that sufficed, when it was discreteness, one of the properties of the integers that was the essence. Today as digital replaces analog, Pythagoras is firmly back in business.

Sometimes many centuries intervene between the writing of the first sentence in a worldview and the writing of the second, with many by-paths being explored in the while. Today it might be possible to add to what Pythagoras began since there have been several contributions to his approach in recent years. It is fair to call such modern natural philosophers as Planck, Eddington and Dirac followers of Pythagoras, since parts of their work are clearly "Pythagorean". They have taken number to be the starting place of ultimate reality.

Today's Pythagoreanism begins with the so-called fundamental constants of physics. We might say that in the beginning God created the numbers h,G,and c, and from them all else follows. If the constants had had different values, then our universe would have been different. In fact we might not have even been here to contribute the consciousness feedback that gives the universe one of its modes of existence. In addition to re-introduction of the discrete, Planck took the fundamental constants, h,G, and c and using dimensional analysis derived a system of "natural units" with which to describe the universe. When translated into these units relations between the masses, sizes, and life times of physical entities were seen to reveal symmetries and patterns that bring to mind Pythagoras' own constructions of musical tones and their harmonics.

The dimensionalities that physicists feel best describe most phenomena are mass M, length L, and time T. Each of the fundamental constants possesses a dimensionality built up from these factors:

$$[h] = [ML^2/T],\ [G] = [L^3/(MT^2)],\ [c] = [L/T].$$

By suitably combining the fundamental constants, Planck defined units of mass, length, and time. In terms of cgs units the logarithms to base ten of these values are:

Planck mass = -4.263110 grams
Planck length = -32.392455 centimeters
Planck time = -42.869276 seconds

In Planck units, the values of h, G, and c are each 1.

PYTHPLNK.WPG 96/09/05 rev. 96/10/07

EDUCATION: IF YOU CAN'T HAVE IT, ~~THEN DESPISE~~ DENIGRATE IT

In the past few months I have been with 'friends' who at some point in a conversation in a contemptuous tone make the remark, "You are educated". They then go on to talk about their being practical not ivory tower. On occasions I hear remarks about being educated as something contemptible like having a loathsome disease. At first I thought this was a reaction to what I had contributed to the conversation, making a technical or historic input where I thought appropriate, but all the while conscious that I contributed not from any sense of superiority, but from being aware of some appropriate fact which I felt added to what was being said. But as I tuned to their attitudes, I grasped that there is an incipient hostility, if not toward education, then toward the educated.

While this is somewhat surprising, it is not totally unexpected. There has been an undercurrent of hostile feelings against scientists for some decades, probably as an outgrowth of the insecurity people feel in having to live with the bomb. With life becoming yearly more frustrating for most people, it is logical that the blame should come to rest on those who bring innovation to society. Egg heads have never been particularly popular, but with the brightest and the best orchestrating such fiascos as the Vietnam War, many feel that an education destroys what is most human in us. I must grant that with the replacement of liberal arts with educations in management science, public relations, law, or business administration, there is something to the charge.

But this is not the whole story. There is an element of envy in the contempt. With the price soaring, fewer and fewer people have access to higher education. What people have or feel they can have is valued; what may not be had ceases to have value. What is beyond their reach, like the fox who could not reach the grapes, is sour. The American dream always promised an education along with car, house and a bank account. Today the dream is no longer in tact, and it is inevitable that what in the past was possible and therefore valued, when it becomes impossible, though still wanted, will be held valueless. [Economists should note that value not only depends on supply and demand, but on market access.]

If it follows that when education ceases to be valued, because it is wanted and is no longer available, it will be despised, then America will enter a dark age of social anarchy manifested by incivility, greed, and violence. Are we already there?

EDUCATED. WPG 96/09/05

September 9, 1996

ON CODE BOOKS

The White House is sending a message to the Middle East encoded according to the code book of American politics, which Republicans, Democrats, and the public at large all share and all understand. But the message is received and decoded in Islamic lands by peoples having a different code-book. The message they receive is not the one the incompetents in the White House think they are sending. This is a form of egoism that has more than once been at the root of failures of American foreign policy, from the time of Woodrow Wilson to today. Assuming that our way of thinking is also how others think has cost thousands of lives of American service men in wars whose seeds were planted by our thinking locally and acting globally.

The compilers of messages proclaim, "There will be no mistaking the message we are sending", "The only thing so & so understands is force". These announcements are excuses for not taking the effort to translate what we want to say so that it can be understood in the language of cultures with different values and approaches to life. Ultimately, the usual message that gets across, one certainly not intended, is that the only thing Americans understand is force. Perhaps that message may contribute to how terrorists choose to communicate with us.

CODEBK1.WP6

BREAD AND WINE

DIONYSUS IS FOREVER ESCAPING THE FORMS THAT APOLLO SEEKS TO ENCASE HIM IN.
THE HUMAN SPIRIT IS FOREVER ESCAPING THE FORMS THAT THE INTELLECT SEEKS TO LOCK IT IN.
WITHOUT AN EXTINCTION THERE CAN BE NO RADIANT.
WITHOUT CRUCIFIXION THERE IS NO RESURRECTION.
WITHOUT TRANSFORMATION THERE IS NO METANOIA.
WHAT YOU SOW DOES NOT COME TO LIFE UNLESS IT DIES [I Cor 15:36]

Sacrifice

This single great truth, said in many ways, has always been symbolized by bread and wine.

The Bread of Apollo, the Wine of Dionysus
The Bread of Brahma, the Wine of Shiva
Jesus took bread, and blessed and brake it, and gave it to them and said:
Take, eat, this is my body.
And he took the cup of wine , and when he had given thanks, he gave it to them and said:
This is my blood of the new testament. [Mark 14:22-24]

This is the truth of sacrifice: A part must be given for the sake of the whole, yet sometimes the whole must be given for a part. The old must be given for the sake of the new, yet sometimes the new must be given for the old. The lower must be given for the sake of the higher, yet sometimes the higher must be given for the lower.

Wisdom sacrifices the part for the whole, the old for the new, and the lower for the higher; but Love alone will sometimes sacrifice the whole for the part, the new for the old, and the higher for the lower.

see Aristotle's informing

BREADWIN.WPG 96/09/1

Related Scraps.

1991 -22 On the Transfiguration
84 " " "
94 Deposits + Withdrawals
110 Openness and Sacrifice
1994 -36 White & Red
-44 The Three Churches
-45 The Four Churches
1995 -37 On Sacrifice
1996 -37 4 Turnings of the Wheel
59 Bread & Wine

THE TWO WISDOMS

1) The sword of Manjusri is a wine → openness
2)

See also 1995#25 Gurdieff's Cosmogony
Crucifixion & Resurrection
2
constraint & liberation
bread & wine
creation sacralization → return to "pre-creation

In the beginning ∃ ∞ potential
Creation is the creation of constraints, of templates.²
liberation or sacralization is the destruction of the templates
Thus Śiva is the destroyer i.e. the liberator
the sacralizer

Bread - Horizontal
Wine - Vertical

Bread Contained
Wine Open

97/02/07 ∃ a precious spiritual essence, that is present in humans, especially children, that is ineffable. We have no word for it. It cannot be described. It is not experienced with the senses. It is only experienced with the "heart".

If is neither bread nor wine

ON BREAD AND WINE

SOME HISTORY

It became the custom in the medieval church for the priest to celebrate the eucharist making offerings of both bread and wine, but giving only the bread to the laity. It was argued that there is no difference, both bread and wine represented Christ's sacrifice, so to partake of only one was sufficient. Whether this practice was instituded out of gross lack of understanding of the symbolism of the Eucharist or was deliberate discrimination against the laity, by the fourteenth century active resentment arose. The protestors viewed eucharistic symbolism with an insight the Church did not share.

In 1386 John Hus (1369-1415) led an uprising in Prague against the Roman Church. The protestors, called Ultraquists, held there was an obligation on the part of the faithful to receive communion in both kinds. As the symbol of their movement, they adopted a white banner on which was emblazoned a chalice of red. The Ultraquists denied along with earlier Christians (such as members of the Celtic Church) that Peter was the head of the Church and took much of their interpretation from their contemporary, the English reformer John Wycliffe.

It was a century of assertion for reform. Following the 'extinction' of the great plague (1332-1349), a radiant of revolt sprang forth: The Jacquerie in France (1358), The peasant revolt in England (1381, Wat Tyler, John Ball, Jack Straw), The Hussites in Bohemia (1386). But the forces of the status quo were too strong. Each revolt was suppressed and Hus was lured to a synod in Constance, under promise of safe conduct, but was treacherously imprisoned and burned at the stake on the sixth of July 1415. Another century passed before Luther nailed his theses to the church door in Wittenburg.

BREAD OR WINE

Returning to the question: Why two kinds? Was not the Church's interpretation correct? As symbol of the sacrifice was not either bread or wine sufficient? What led the Hussites to suspect that maybe the bread and the wine did not stand for the same thing. Why did Christ institute two symbols? There must be two different meanings. The Church did not answer Hus, it executed him, and has not given an answer to this day. But when we look beyond Rome we can perceive an answer.

BREDWIN2. WP6

96/09/11

96/10/07 notes 2:30PM PST

Bread: The mitosis of self + Other
Wine: The re-union

Bread: Flesh "Matter + Spirit are cosmic lovers" - S.K. & St. Augustine
Wine: Spirit

Bread: A construct, a model, a theory
Wine: release from the theory [sword of Manjusri]

Bread: A religion, a revelation, a worldview, a theophany
Wine: Transcending - metanoia

Bread The Bardo of physical existence - phenotype
Wine The Bardo of spiritual purity - genotype

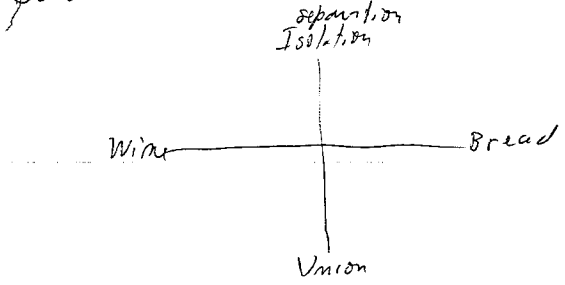
Bread Life - my body which was given for you
Wine Death - my sacrifice which is given for you
blood

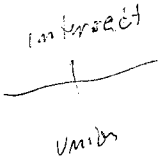
Bread The Classical
Wine The Romantic

At times we need bread - structure, pattern in our live
At times we need release - wine - to dissolve
At times we need both, a mix

The Bread is broken before it is given!

Does Bread + Wine fit with departure + return?





The Church of St. James — martyrdom
A deposit is sacrifice - wine
A withdrawal is, bread
inspiration

of Taking and Sending

BELIEVE AND BELIEF

EVERYONE SHOULD BELIEVE IN SOMETHING
I BELIEVE I'LL HAVE ANOTHER BEER
--BUMPER STICKER

> On the wall of his office, the Danish physicist, Niels Bohr had hung a horseshoe. A visitor, astonished to see it, said, "Surely, Professor Bohr, you can't believe in such a silly superstition." Bohr replied, "Of course I don't, but they tell me it works even if I don't believe in it."

Supportive of confusion and misguidance, in English the word *believe* is used in several diverse ways. One usage is as an expression of hope (or fear) regarding the future, "I believe mother is coming for a visit"; or as a surmise regarding the present, "I believe the manager is in his office"; or as an opinion regarding the past, "I believe America was first discovered by the Vikings". In addition to these future, present, and past speculations, another use of the word is as an expression of what one would have become true. "We believe in God the Father Almighty, Maker of heaven and earth..."; "We believe that all men are created equal, and are endowed..." Usage thus tells us that *to believe* is either to speculate or to affirm a preference. We are required to believe (meaning speculate) whenever factual knowledge is partially or totally absent. In this usage to believe is to erect a scaffold between ignorance and knowledge. We believe (meaning wish), whenever a prefered state is partially or totallly absent. In this usage to believe is to erect a bridge between actuality and desire.

> Magic does not work, but belief in magic does.
> --Isaac Asimov

But *belief* is more than either surmise or wish. Belief possesses power! It affects the future, bending the course of events asymptotically to its specifications. Belief is not about a state, it is about a direction we face. It is about where we want to go. It is a dynamic, moving us through a sequence of states toward what it envisions. Belief plays a dysfunctional role only when surmise is confused with fact. Belief cannot alter either fact or the present. The present is the domain of fact, (perhaps the only domain of fact). The domains of belief's effectiveness are the elsewheres and the elsewhens.

The distinct domains of fact and belief are structured by the nature of time. The present is the only place in time where energy is transferable, and since belief can have no effect on the

07/02/07

Information evidently can be transferred in past, present, and future. It is not subject to the space-time restraints of matter/energy.

Intention ~ Believe
+
Expectation ~ Belief

Being : Becoming :: Fact : Belief
— Plato

present, it does not manipulate energy. Belief operates by selecting alternate futures, by manipulating information. A vision is a container of information and in some way information has the power of modifying form as well as of structuring form.

(While our culture has no difficulty regarding the future as a domain of belief, it rebels at the idea that the past is also a domain of belief. But memory or a record of the past is not the past itself. Assuming the record and the past are the same is itself a matter of belief (surmise)).

In many languages fact is expressed by the indicative mode and belief by the subjunctive mode. That our languages have evolved these different modes shows that human experience recognizes significant differences in the nature of time beyond just past, present, and future.

The boxes allow us to create useful macros. The first is The Bohr Macro: "It works whether you believe in it or not." The second is the Asimov Macro: "It doesn't work, but if you believe it works, it does." A third macro could be attributed to Gobdovi, a Hindu character in 'A Passage to India". "The outcome will be the same no matter what you believe." These three views pretty well cover the metaphysics of time and belief. Or did I leave out Schrödinger's cat.

This form of the Niels Bohr story is often quoted, but the more likely form is that Bohr and a friend visited a farm and saw the horseshoe above the barn door. The friend chided the farmer, "You can't believe in such a silly superstition." The farmer replied, "Of course I don't, but they tell me it works even if I don't believe in it." Bohr often told the story and in time it became attached to him.

Orig. Brief1. wpt 96/10/01
Rev. Brief2. wpt 97/08/25

→ TemPLATOmics

REDUCTIONISM VS. TEMPLATISM

of 96-65
96-67

For the past three centuries reductionism has been the philosophical basis of Western science. Reductionism consists, not of *post hoc ergo propter hoc* causality, but of bottom up causality. That is the cause and explanation of phenomena are to be sought and found in their component sub-parts. Biological phenomena are to be explained in terms of chemistry, chemical phenomena, in turn in terms of physics. And each level of physical phenomena to be explained in terms of components. Molecules in terms of atoms, atoms in terms of electrons and baryons, these in terms of quarks, ... It is not certain how far this sequence continuous, whether it ever ends.

A story that ends but never stops

As an alternative to reductionism it is proposed that there exists a 'template' that manifests itself in the same abstract form, but in different observables, at each level of the ontological scala: sub-atomic, atomic, molecular, cellular,... This view would hold that the sub-systems do not determine the properties of a system, but that both the sub-systems and the system derive their properties by being isomorphic at some level of abstraction to a universal template. This template would be a sort of "code book" that is contained in all material systems, from quarks to Hubble universes. Humans being part of the picture would also possess this same code book. This would explain why we find the universe comprehensible, let alone experiencable.

Several instances point to the possible validity of a template type hypothesis. There is, for example, the fact that von Neumann's construction of the essentials of reproduction in cellular automata are isomorphic to those found in the components of bio-reproduction. (von Neumann made his construction a decade before the work of Watson and Crick.) There is also a basic eight-foldedness that occurs on many levels, from sub-atomic symmetry groups through the periodic table of elements, on up to stellar and galactic types. (One could also throw in diatonic musical scales and the I Ching.)

One of the criticisms of reductionism has been its inability to account for emergence. Can templatism do any better? Speculatively, we might answer, yes. Assuming that a portion of the template includes the algorithms for self organization.

As far as determinism goes, templatism would appear to be less deterministic than reductionism. Templatism has both deterministic and open ended aspects. The interface may vary with each level of manifestation.

Templatism would have less demand on temporal sequences of evolution or emergence. Development could be occurring simultaneously on several levels, it not being required that all the bricks be available before construction of the building

begins. The universal code book would assure in advance that the bricks and the building would merge in a totally compatable way.

Both von Bertalanfy's General Systems Theory and J.G. Bennett's Systematics are predicated on some form of templatism. The search for commonalities in systems is inspired by the idea that at some level there exists a single Platonic archetype that is manifested in each system. The systems may be quite diverse, but on a certain level of abstraction, they are constructed around the same archetype or template. Even the importance of the concept of equivalence in human thought processes stems from the experience of the templated structure of the universe.

The most common realization of templatism is in mathematics itself. That the same equations are so broadly applicable to so many systems infers that these equations are the abstract templates on which multitudes of systems are constructed. The Pythagorean assertion that number is the basis of all extends these mathematical facts to the level of metaphysics.

At some point it becomes necessary to formalize the role of time. We may think of a template as a pattern, a process or both. Usually the idea of a template is static, a spatial description of the organization of a system. But it may also be a pattern in space-time, in which case it includes a dynamic. Or it may be a purely temporal pattern. The same three categories, spatial, temporal, or both, are also present in the concept of archetype. Indeed, the importance of Templatism may be but a reassertion of the fundamental role of archetypes.

In our experience of the world matter and information are never separate. Indeed, they may be inseparable. But until the differences in the kind of existence which matter and information possess can be clarified, we may postulate pure information. That is a separate level for the existence of archetypes-templates. But pure information or not, archetypes and templates require a multilevel world: one level on which archetypes-templates exist and another level for their manifestations. Modern science avoids such a view, choosing to restrict all causes to a single level. Since causality is also viewed as locked into temporal sequences, this approach forces explanations to conform to a linear view of time. The archetype-template view liberates causality and explanations from narrow linearity. It allows both determinsim and entelechy.

cf. The Buddhist story of the dismemberment of the King's chariot

THE KOSMOS ACCORDING TO PYTHAGORAS

I Pythagoras and Planck

Somewhere around 600 B.C.E., at the beginning of the present age, Pythagoras held that the natural integers themselves sufficed as building blocks for constructing the universe. He was set back and dismayed when real numbers like $\sqrt{2}$ intervened. Even before his death the continuum of real numbers began to philosophically intrude and came to dominate physical thought until the beginning of the 20th century. Then at the beginning of the present age, Max Planck found that discreteness must be re-introduced. The continuum, as well as the integers, was found wanting. Pythagoras was somewhat justified when Planck showed that basic physical realtionships were governed by discrete rather than contiuous, quantities. Of course, Pythagoras' misinterpretation was that it was the integers themselves that sufficed, when it was discreteness, one of the properties of the integers that was the essence. Today as digital replaces analog, Pythagoras is firmly back in business.

Sometimes many centuries intervene between the writing of the first sentence of a worldview and the writing of the second, with many by-paths being explored in the while. Today it seems possible to add to what Pythagoras began since there have been several contributions to his approach in recent years. It is quite appropriate to call such modern natural philosophers as Planck, Eddington and Dirac followers of Pythagoras, since parts of their work are clearly "Pythagorean". They have taken number to be the ultimate basis of reality.

II The Planck Particle

Today Pythagoreanism begins with the so-called fundamental constants of physics. It might be said that: In the beginning God created the numbers $\hbar$,G, and c, and from these all else followed. If these constants had had different values, even slightly different values, then the universe would have been quite different. In fact we might not even be here to contribute the feedback consciousness that references the universe. Planck, in addition to re-introducing the discrete, took the fundamental constants, h, G, and c and dimensionaly derived a system of "natural units" with which to describe the universe. When translated into these Planckian units relations between the masses, sizes, and life times of physical entities were seen to reveal symmetries and patterns that bring to mind Pythagoras' earlier patterns of tones and their harmonics.

KOSMPYTH.WPG 96/10/07
KORINTHIA 12 PT

Physicists have come to feel that the dimensionalities of mass (M), length (L), and time (T) are the basic descriptors of most observed physical phenomena. In terms of M, L, and T, the dimensionalities of the fundamental constants sre,

$$[\hbar] = [ML^2/T], \quad [G] = [L^3/MT^2], \quad [c] = [L/T]$$

When mass, length, and time are expressed explicitly in terms of ħ, G, and c, we find,

(1)
$$m_o = \sqrt{\frac{\hbar c}{G}} \quad l_o = \sqrt{\frac{\hbar G}{c^3}} \quad t_o = \sqrt{\frac{\hbar G}{c^5}}$$

This set of values is taken as the definition of a virtual particle, having the mass m_o, the radius l_o, and the characteristic time t_o, called the "Planck Particle". The $\log_{10}$ cgs values of the fundamental constants and the Planck Particle parameters are given in Table I,

Table I Fundamental Values (cgs)

all value ħ

CONSTANT	symbol	dimensionality	LOG_{10}(VALUE)
Planck's constant	ħ	ML^2/T	-26.9769235
gravitational constant	G	L^3/MT^2	-7.1757050
velocity of light	c	L/T	10.4768207
Planck mass	m_o	M	-4.6621994
Planck length	l_o	L	-32.7915452
Planck time	t_o	T	-43.2683661
fine structure constant	α	1	-2.1368346
proton/electron mass ratio	μ	1	3.2639088
coulomb/gravity force ratio	S	1	39.3558802
proton mass	m_p	M	-23.7766019
electron mass	m_e	M	-27.0405107
electron charge	e	$\sqrt{(ML^3/T^2)}$	-9.3184687
electron radius	r_e	L	-12.5500681
Bohr radius	a_o	L	-8.2763988

$\sqrt{S} = 19.6779401$

$\alpha\mu = 1.127074$

$\sqrt{\alpha\mu} = 0.563537$

$\frac{\alpha}{\mu} = -5.400744$

$\sqrt{\frac{\alpha}{\mu}} = -2.700372$

THE PLANCK PARTICLE LEVEL

In TABLE 2 the subscript "o" is used when refering to an attribute of the Planck Particle. The values in the table are taken from TABLE 1 or are derived using the equations given below. The tabular entries in the columns marked $\hbar$ G c α μ S are the powers to which these values are raised.

TABLE 2

QUANTITY	$\hbar$	G	c	α	μ	S	$\log_{10}$(cgs value)	$\log_{10}$(cgs value)/2
m_o^2	1	-1	1	0	0	0	-9.324399	-4.662199
l_o^2	1	1	-3	0	0	0	-65.583090	-32.791545
t_o^2	1	1	-5	0	0	0	-86.536732	-43.286366
$[Gm_o/c^2]^2$	1	1	-3	0	0	0	-65.583090	-32.791545
T_o^2	1	1	-5	0	0	0	-86.536732	-43.268366
E_T^2	1	-1	5	0	0	0	32.582886	16.291443
E_G^2	1	-1	5	0	0	0	32.582886	16.291443
ρ_o	-1	-2	5	0	0	0	93.712439	
$E_T t_o$	1	0	0	0	0	0	-26.976924	
$m_o l_o$	1	0	-1	0	0	0	-37.453744	
m_o/l_o	0	-1	2	0	0	0	28.129326	

Gm_o/c^2 is the gravitational radius which is equal to l_o for the Planck Particle.
T_o is the density time given by $\sqrt{(l_o^3/Gm_o)}$, equal to t_o for the Planck Particle.
E_T is the total energy = m_oc^2.
E_G is the gravitational energy = Gm_o^2/l_o, equal to E_T for the Planck Particle.
ρ_o is the density = m_o/l_o^3
From the above values, the following relations may be seen to hold.

$$\rho_o = c^5/\hbar G^2, \qquad E_T = \hbar\sqrt{(G\rho)}, \qquad t_o = 1/\sqrt{(G\rho)}, \qquad E_T\, t_o = \hbar$$

$$m_o l_o = \hbar/c \qquad m_o/l_o = c^2/G \qquad Gm_o/l_o c^2 = 1$$

$$e^2 = \hbar\alpha c = \alpha c m_o l_o = \alpha G m_o^2 \qquad T_e = \hbar^3/m_e e^4$$

THE BARYON -- LEPTON LEVEL

TABLE 3A THE ELECTRON

QUANTITY	$\hbar$	G	c	α	μ	S	$\log_{10}$(cgs value)	$\log_{10}$(cgs value)/2
m_e^2	1	-1	1	1	-1	-1	-54.081022	-27.040511
r_e^2	1	1	-3	1	1	1	-25.100136	-12.550068
t_e^2	1	1	-5	1	1	1	-46.053778	-23.026889
$[Gm_e/c^2]^2$	1	1	-3	1	-1	-1	-112.339714	-56.169857
τ_e^2	1	1	-5	1	2	2	-3.433989	-1.716995
E_{Te}^2	1	-1	5	1	-1	-1	-12.173938	-6.086969
E_{Ge}^2	1	-1	5	1	-3	-3	-97.413518	-48.706659
ρ_e	-1	-2	5	-1	-2	-2	10.549693	
$E_{Te}t_e$	1	0	0	1	0	0	-29.113858	
$E_{Te}\tau_e$	1	0	0	1	1/2	1/2	-7.803964	
$E_{Ge}t_e$	1	0	0	1	-1	-1	-71.733648	
$E_{ge}\tau_e$	1	0	0	1	-1/2	-1/2	-50.423754	
$m_e r_e$	1	0	-1	1	0	0	-39.590579	
m_e/r_e	0	-1	2	0	-1	-1	-14.490443	

The dimensionless parameters α and (μS) are introduced here through the equations: $m_e r_e c/\hbar = \alpha$ and $Gm_e/r_e c^2 = 1/(\mu S)$

$\tau_e = \sqrt{(\mu S)}\, t_e$, $E_{Te} = \mu S E_{Ge}$, $E_{Te}\tau_e = \sqrt{(\mu S)}\, E_{Te}t_e$, $E_{Ge}\tau_e = \sqrt{(\mu S)}\, E_{Ge}t_e$

$E_{Te}t_e = \alpha\hbar$, $E_{Te}\tau_e = \sqrt{(\mu S)}\alpha\hbar$, $E_{Ge}t_e = \alpha\hbar/\mu S$, $E_{Ge}\tau_e = \alpha\hbar/\sqrt{(\mu S)}$

$m_e r_e = \alpha m_o \ell_o$

TABLE 3B THE PROTON

QUANTITY	$\hbar$	G	c	α	μ	S	$\log_{10}$(cgs value)	$\log_{10}$(cgs value)/2
m_p^2	1	-1	1	1	1	-1	-47.553204	-23.776602
r_e^2	1	1	-3	1	1	1	-25.100136	-12.550068
t_p^2	1	1	-5	1	1	1	-46.053778	-23.026889
$[Gm_p/c^2]^2$	1	1	-3	1	1	-1	-105.811896	-52.905948
T_p^2	1	1	-5	1	1	2	-6.697898	-3.348949
E_{Tp}^2	1	-1	5	1	1	-1	-5.646120	-2.822960
E_{Gp}^2	1	-1	5	1	1	-3	-84.357682	-42.178841
ρ_p	-1	-2	5	-1	-1	-2	13.873605	
$E_{Tp}t_p$	1	0	0	1	1	0	-25.849949	
$E_{Tp}T_p$	1	0	0	1	1	1/2	-6.172009	
$E_{Gp}t_p$	1	0	0	1	1	-1	-65.205829	
$E_{Gp}T_p$	1	0	0	1	1	-1/2	-45.527889	
$m_p r_e$	1	0	-1	1	1	0	-36.326670	
m_p/r_e	0	-1	2	0	0	-1	-11.226534	

discriminated or separated

The dimensionless parameters μ and S are differentiated here through the equations: $m_p r_e c/\hbar\alpha = \mu$ and $Gm_p/r_e c^2 = 1/S$.

$T_p = \sqrt{(S)}\, t_p$, $E_{Tp} = SE_{Gp}$, $E_{Tp}T_p = \sqrt{(S)}\, E_{Tp}t_p$, $E_{Gp}T_p = \sqrt{(S)}\, E_{Gp}t_p$

$E_{Tp}t_p = \alpha\mu\hbar$, $E_{Tp}T_p = \alpha\mu\hbar\sqrt{(S)}$, $E_{Gp}t_p = \alpha\mu\hbar/S$, $E_{Gp}T_p = \alpha\mu\hbar/\sqrt{(S)}$

$m_p r_e = \alpha\mu\, m_o l_o$

THE BARYON -- LEPTON LEVEL

TABLE 4A ELECTRON VALUES IN PLANCK UNITS

QUANTITY	$\hbar$	G	c	α	μ	S	$\log_{10}$(PL value)	$\log_{10}$(PL value)/2
m_e^2	0	0	0	1	-1	-1	-44.756624	-22.378312
r_e^2	0	0	0	1	1	1	40.482954	20.241477
t_e^2	0	0	0	1	1	1	40.482954	20.241477
$[Gm_e/c^2]^2$	0	0	0	1	-1	-1	-44.756624	-22.378312
T_e^2	0	0	0	1	2	2	83.102742	41..551371
E_{Te}^2	0	0	0	1	-1	-1	-44.756624	-22.378312
E_{Ge}^2	0	0	0	1	-3	-3	-129.996202	-64.998101
ρ_e	0	0	0	-1	-2	-2	-83.102743	
$m_e r_e$	0	0	0	1	0	0	-2.136835	
m_e/r_e	0	0	0	0	-1	-1	-42.619789	

$E_{Ge} = m_e^2/r_e = \sqrt{(\alpha/\mu^3 S^3)} = E_{Te}/\mu S$, $t_e = r_e = T_e/\sqrt{S}$, $T_e^2\, \rho_e = 1$

QUANTITY	$\hbar$	G	c	α	μ	S	$\log_{10}$(PL value)	$\log_{10}$(PL value)/2
e^2	0	0	0	1	0	0	-2.136835	-1.068418
							$\log_{10}$(cgs value)	$\log_{10}$(cgs value)/2
e^2	1	0	1	1	0	0	-18.636938	-9.318469

THE BARYON--LEPTON LEVEL

TABLE 4B PROTON VALUES IN PLANCK UNITS

QUANTITY	$\hbar$	G	c	α	μ	S	$\log_{10}$(PL value)	$\log_{10}$(PL value)/2
m_p^2	0	0	0	1	1	-1	-38.228806	-19.114403
r_e^2	0	0	0	1	1	1	40.482954	20.241477
t_p^2	0	0	0	1	1	1	40.482954	20.241477
$[Gm_p/c^2]^2$	0	0	0	1	1	-1	-38.228806	-19.114403
τ_p^2	0	0	0	1	1	2	79.838434	39.919417
E_{Tp}^2	0	0	0	1	1	-1	-38.228806	-19.114403
E_{Gp}^2	0	0	0	1	1	-3	-116.940568	-58.470284
ρ_p	0	0	0	-1	-1	-2	-79.838834	
$m_p r_e$	0	0	0	1	1	0	1.127074	
m_p/r_e	0	0	0	0	0	-1	-.39.355880	

$E_{Gp} = m_p^2/r_e = \sqrt{(\alpha\mu/S^3)} = Etp/S$, $t_p = r_e = \tau_p/\sqrt{S}$, $\tau_p^2\,\rho_p = 1$

$t_p = t_e$, $\tau_p = \sqrt{(\mu)}\,\tau_e$

QUANTITY	$\hbar$	G	c	α	μ	S	$\log_{10}$(PL value)	$\log_{10}$(PL value)/2
a_o^2	0	0	0	-3	1	1	49.030294	24.515147
							$\log_{10}$(cgs value)	$\log_{10}$(cgs value)/2
a_o^2	1	1	-3	-3	1	1	-16.552798	-8.276399

Se 96-55

EXTINCTIONS AND RADIANTS

The temporal pattern that extinction must precede radiant may not be completely accurate. In the cretaceous-tertiary case where the extinction was caused by the intervention of an outside agent, an asteroid, it appears that extinction clearly preceded radiant. However, there is evidence that dinosaur termination was in process and mammalian life existed prior to the asteroidal impact. The outside agent could more accurately be described as catalytic rather than purely causal, ie speeding up a process that had already begun to take place, and which probably would have been effected over time even without the asteroid.

When we look at extinction/radiants in human history, we see certain catalytic events occurring but never a single catastrophic event to which extinction could be unequivocally attributed. For example, World War I could not be considered as causal of the extinction/radiant taking place in the twentieth century, but it was certainly catalytic. We see rather that the innovations of the radiant are themselves, positive feedback causes of the extinction. Examples are Darwinism, relativity, quantum reality ... challenging and replacing creationism, newtonism, objective realism. World War I played a catalytic role in accelerating the development and acceptance of innovations, but was more symptomatic that causal.

The Poets of WWI tell what became extinct: The Glory of War

Taking the view that an extinction/radiant is a complex interplay of untested emergent innovations and established adaptive traditions, abetted by catalytic events, let us put in juxtaposition the e/r of 600 B.C.E. and that of today.

This was called the "axial" period by Jaspers

The Extinction/Radiant of 600 B.C.

First we look for catalytic events, that disequilibrated the established social orders of the time. An innovation that appears both catalytic and causal was the spreading of writing with the invention of alphabets that took place about a century prior. This single development, changing oral traditions to written ones, is perhaps the central hallmark of the "Piscean Age" extending from 600 B.C. to the present. Oral traditions were not terminated, many oral lineages persist to this day, but the torch of knowledge was passed to the written word. (And today the torch is being placed to books themselves.)

There were two important results of the writing revolution:

First the erosion of proprietary knowledge. The mystery religions, the hermetic, the occult, all lost ground to the open, the communicable, the testable. Magic was replaced by science and priesthoods by academicians. Writing had the effect of democratizing learning, challenging authority, and discrediting

EXTRAD.WPG
96/10/22

elites. It effected a clear distinction between myth and history, between fantasy and fact, between imagination and reality. The world was seen not to be capricious, but lawful. These innovations began some 2600 years ago but are still working themselves out.

However, there was another result of transference to the written word. It had the effect of truncating knowledge. Only that which was expressible in vernaculars, that which could be communicated to and by everyman was of value. "Higher" knowledge was denigrated and then denied.

Second, was the transference of divinity. No longer could the ruler, the pharaoh, be the possessor of divinity. Mortality and divinity were separated. Either the ruler was not god or we all had the same immortality he claimed. Both views prevailed. However, the old view held on in proclamation if not in belief. The Caesars claimed divinity. "O.K. if it stabilizes the state, make it official belief, but personally we don't believe it." The idea did not die easily. It continued not as the divinity of the ruler, but as the divine right of ruler. Most of this was put to rest with the French Revolution in 1789, but one anachronistic vestige of the divinity in a ruler was proclaimed in 1870 when Pope Pius IX pronounced papal infallibility.

Some specifics of the radiant:

DATE	PLACE	PERSON	INNOVATION
630-553	PERSIA	ZARATHUSTRA	GOOD AND EVIL
624-545	MILETUS	THALES	SCIENCE
611-546	MILETUS	ANAXIMANDER	MATERIALISM
604-531	CHINA	LAO TZU	TAO
600-529	MESOPOTAMIA	CYRUS	EMANCIPATION
599-527	INDIA	MAHAVIRA	AHIMSA
581-497	SAMOS	PYTHAGORAS	MATHEMATICS
563-483	INDIA	SAKIMUNI	DHARMA
551-479	CHINA	KUNG FU TZE	ETHICS
544-483	EPHESUS	HERAKLIDOS	TIME
C 540	ISRAEL	DEUTERO ISAIAH	MONOTHEISM

Notes: The Tao may be considered the path of the cosmos; the Dharma, the path of life. Ahimsa is non-violence. Pythagoras did not invent mathematics, he first recognized it abstract power. Heraklidos discriminated linear (historical) time and cyclical time.

Was there an extinction(s) that obliterated earlier advanced cultures
Atlantis? Lemuria?

THE NIGHT OF THE HUNTER'S MOON

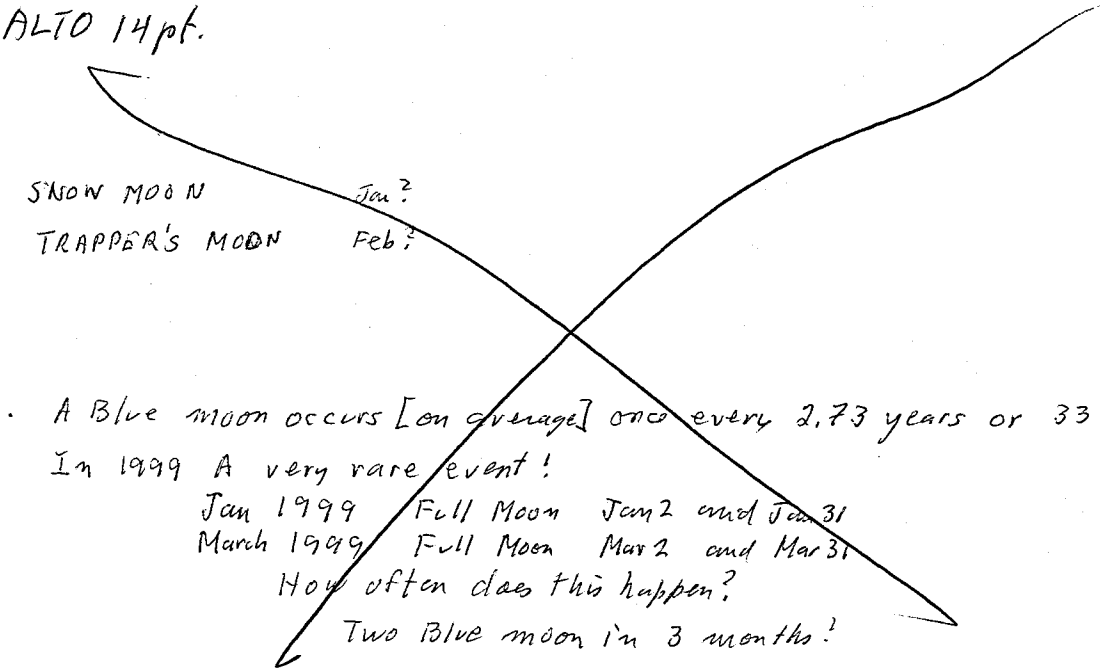
There are many kinds of moon: new moons, full moons, first quarter and last quarter moons, crescent moons, half moons and gibbous moons. There are blood moons that occur during an eclipse, and there are blue moons that occur whenever there are two full moons in the same month, (once every 2.73 years). There are June moons and August moons. There are harvest moons (the full moon closest to the autumnal equinox) and hunter's moons (the full moon following the harvest moon). All these moons have been described together with their mystiques and symbolism in folk lore, song, and literature.

Tonight is the night of the hunter's moon. As twilight fell I went up the hill looking over the lagoon and watched the cattle slowly wending their way home, a scene whose quiet and timeless mood was poetically captured years ago in Gray's solemn Elegy. As darkness fell the lights of the distant city began to flicker on and off and behind them the outline of the hills gradually softened. Then replacing the day's fading weariness, a magical energy emerged and the lights of the city were joined by a myriad flashing points that danced along the hill tops. What was this? I had never seen the like before. Were these tips of flames of some hidden fire behind the hill, alternately disappearing and reappearing and then racing back and forth along the ridge? They were not flames, they were fairies celebrating an enchanting reality that mortals who have great good fortune may once in a blue moon be allowed to glimpse. How is it that we can recognize that reality from only a glimpse? We know it is real, more real than the world of day. It calls to us and reminds us who we are. In it we catch a view of our long lost home whose beauty and mystery moves us to tears.

But hold. Now a faint glow rises behind the ridge. It brightens and suddenly a spot of brilliant orange appears. Everything stops and for the next few moments remains transfixed as the orange globe of the hunter's moon majestically mounts into the sky.

It is Samhain, the night when our world and the magic world of the fairy lights are in communion. It is the season when we can see a transcendent reality of transforming beauty and know for a brief moment who we really are. This the Celtic peoples of long ago well knew. We have since forgotten, though we celebrate it still. We call it Halloween.

HUNTMOON.WPG 96/10/26
BRIQUET 24pt. 97/04/10
ALTO 14pt.



SNOW MOON Jan?
TRAPPER'S MOON Feb?

- A Blue moon occurs [on average] once every 2.73 years or 33 months.

In 1999 A very rare event!

Jan 1999 Full Moon Jan 2 and Jan 31
March 1999 Full Moon Mar 2 and Mar 31

How often does this happen?

Two Blue moon in 3 months!

65

cf. 96-61
96-67

TEMPLATONICS

INTRODUCTION

Basically the subject of causality is about linkages, with the usual notion being that causality is about a particular kind of linkage, viz., about uni-directional linkages. [cf graph theory] But the usual notion of a linkage is a linear one. So contemporary views of causality are restrictive in being both linear and uni-directional. These restrictions limit applications to infrastructures or grounds that are either chain-like or tree-like. Linear, uni-directional linkages are not readily applicable to more complex networks or to interactions between network and ground (vertical interactions). This has resulted in a third restriction, all causalities must be horizontal or one level. [These notions may be traced to John Locke's three restrictions to critical thinking or modeling: What is earlier is primary, what is smaller is primary, and what is visible is primary. id est, causality is from past to future, from small to large (reductionism), and does not need to consider the infrastructure, only the horizontal context.]

Computer simulation is revealing the severe limitation of these 18th century views which have been absorbed into modern thinking. Parallel computing allows computations to involve several evolving processes simultaneously, freeing from "Lockean causality". [see James Bailey's book, After Thought]. But simultaneous processing is not total liberation from linear uni-directional thinking. An entirely new paradigm for both figure and ground is needed. An attempt at this is what is here labeled, TEMPLATONICS.

OVERVIEW

The term templatonics is appropriate since the central idea involved is that of a template. But the fortuitous occurrence of PLATO within the word is also appropriate, for the idea of template is closely related to Plato's concept of archetype. What we shall here refer to as a template is an informational pattern, either static or dynamic, that governs the form(s) that matter and/or energy may assume. Plato's archetypes were also patterns or scenarios of an abstract nature that manifested themselves from time to time on the material level. Manifestations could vary considerably in setting and personae, but the plot would always be the same. Until we have better understanding of the relation between information and energy, we assume that templates or archetypes exist on an "informational level" which is the source of the information that governs all material structures. (Whether the templates/archetypes are "pure information" is for the present unanswerable.) In assuming the existence of (at least) two cosmological levels, we are not making a radical departure from present views which posit fields, forces, and other representations that disregard Locke's insistence on visibility. The principal advantage of the template/archetype model is that it divorces causality and time, allowing not only past-future, future-past, and bi-directional causalities, but also *sine-temporum* causality. However, instead of Plato's pre-existence of the archetypes, the templates may pre-exist, evolve, or be created and governed by some "meta-template".

96/10/31 TEMPLATI. WP6

References:
- On zero Heart Sutra-Suzuki p25
- Yogacara School
  Buddist Handbook, Lago
  Apophasis, Nagarjuna
- World of Tibetan Buddhism p. 44
  Nagarjuna
  Dependent Organization

Examples:
- Steve Dole's Planetary Systems
  See Casti "Would be Worlds" p12
- Blackbirds forming prolate spheroid – expand, contract
  ⇒ Joint mind and ⇒ TEMPLATONICS
- The restaurant effect

A fundamental property of templates: They exhibit the Principle of Plenitude.

Rupert Sheldrake: "A New Science of Life"
Morphogenetic Fields ≡ templates
store information that governs embryonic development ~ teleology

Why does mathematic work? We > the templates (codebooks) Math is not an "it" Math is inside of us part of Buddha Mind, Part of the Kingdom of God. The Cosmic Code-Book

MORPHIC RESONANCE
≡ Once a template comes into existence it follows the principle of plenitude ≡
→ cf. the 100th Monkey, etc

Template Modification or Morphogenesis may be related to conformal transformations

can caterpillar to butterfly be traced by successive conformal transformations?

See also 1995 #25 Gurdieff's Cosmogony
The Siva Process

TEMENOS + PLATO = TEMPLATONOS

CON-TEMPLATE = WITH THE TEMPLATE

GUP ⟷ GEP
does not result in complexity or extinction, it results in complexity and extinction!

Do we create templates like macros from the primordial archetypes or do templates pre-exist (i.e. they are all archetypes) only to become free of inhibitors, as per Gurdieff's cosmogony.
or perhaps: number is the base of every archetype [1:1]
TEMPLATONICS as per Pythagoras and J. G. Bennett

* Gaining access is putting the monkeys to flight

Plato + Archetypes
Sheldrake's MORPHIC RESONANCE 100th Monkey
* GURDIEFF + the ŚIVA PROCESS 1995 #25 [Scattering the Monkeys]
Templates + the Principle of Plenitude
Templates + Morphogenetic Fields
Morphogenesis and the GUP ⟷ GEP paradox
~GAP

* Also Paul Davies "Blueprint" p. 163 ∃ a meta-principle
"... so as to permit organization to arise"
liberate, sacralize

SOME THOUGHTS ON STANDARDS AND MIDDLEWARE

Sometimes when consumed with current innovations we fail to take note of precedents having similar patterns which might provide us with useful clues for prediction and guidance. It frequently becomes profitable to look at isomorphisms between different kinds of systems and view new developments in the light of historic parallels. When we back off and look at *standards* in their inclusive context, we find that standards are arrangements that play an important role in holding society together. Without standards communication, commerce and other forms of exchange, all needed for any social order to exist, would be impossible. To introduce the subject, some examples.

First, some examples of *standards:*

- Languages
  Every language is a standard in the locality of its use. French in France, Danish in Denmark, etc.
- Programming Languages
  Similarly, Fortran, C, Basic, Pascal, Algol, Lisp are some of the standard program languages used by various programmers.
- Systems of Measurement
  Feet-pounds-seconds, Systeme Internationale, Centimeters-grams-seconds, are each standards in different laboratories and places of production.
- Currencies
  Dollars-cents, Francs-centimes, Pounds-pence are all standards in their respective countries.
- Operating Systems
  Unix, DOS, Windows, Mac are standards for various computers and systems.

There is a second kind of standard that is currently being given the name *middleware*. These secondary standards are introduced when for some reason it is not possible to institute a single universal standard, and multiple standards must be employed. Middleware is a set of one or more links that enable exchanges between the primary standards. Again, some examples.

Next, some examples of *middleware:*

- A dictionary, such as a French-English dictionary, is middleware in that it "bridges" two standards.
- A measurement conversion table is middleware. Even a sign giving the distance to the next city in both miles and kilometers is middleware.
- Currency exchange rates are (continually fluctuating) middleware.
- CP to Mac conversion software is middleware.
- Stock markets, indeed all markets, are middleware
- The Internet

What is a standard?
A single protocol to which all communicants must conform.

Multiple protocols? What advantages, disadvantages?
What effect on innovation, development, market, future, bottom line?

cf Bio Evolution: A few forms occur (templates?)
(Gould's what underlies, what is needed besides natural selection)

Levels of the Principle of Plenitude
level 1. species {organisms}
level 2. ecology [Strange loop] {species}
level 3 organism {ecologies} → organism

As lived out in many lifelines the standard → an archetype

The ultimate entification is the archetype
departing and returning

Archetypes are primordial from the Sunyata. Templates are the result of GEP ↔ GEP

Recognition is about archetypes. Is recognition the perception of a template (or archetype) or penetration beyond template to archetype

---

A standard is a monopoly, cultural, technical, fiscal, intellectual
A well defined domain must be prescribed (and proscribed) for all standards

Zwicky's fundamental injunction – seek all descriptions {[all facets
runs counter to religious, political and scientific custom
Only artists view the world this way
Zwicky's injunction was an extension of Sakimuni's
Always look for and emphasize what doesn't fit
Paradox
But this should not be motivated by the sense of rebellion
The search just is rebellion

Include History of Standard Railroad gauge

A philosopher

Standards ~ Templates
Middleware ~ Meta-Templates [Templates that organize templates]

From these examples we see that whenever there are two or more standards that cannot be merged into a single standard without great cost or trauma, the answer is middleware. Certainly it would be totally unreasonable to insist that French and English be replaced by a single language, therefore dictionaries, translators and interpreters. While serious attempts have been made to make the SI system of units universal, for various reasons a single standard is not always either possible or desirable. European countries are now embarking on a project to install a common currency, but during the process daily exchange rates will persist. Middleware provides an answer both in the case of unmergable multiple standards and during a period of time when a set of multiple standards is evolving toward a single standard.

WHAT IS A STANDARD?

One useful definition is: *A standard is a protocol to which all participating parties or components agree to conform in order to transmit exchanges.* Standards have to do with facilitating commerce, communication, or whatever activity involves exchange. This holds not only for the immediate exchange process itself, but for the production or preparation of anything that is to be exchanged.

As important as the standard itself is the procedure by which the standard is reached. There are many.

- **Evolution:** The process is long and gradual, involving many modifications. It occurs in a climate of intention and willingness to opt for the best, regardless of the source. Primary drivers: all the users.
- **Competition:** Again evolution, but in the climate of strife for dominance in order to protect investment and ego. The resulting standard is determined by who has the deepest pockets, the best lawyers, the smoothest lobbyists. Primary drivers: competing interests.
- **Fiat:** Setting the standard by decree, usually known as regulation. Supposedly managed by a neutral party, or a party representing the majority of users, and/or the future. Primary driver: government
- **Accident:** Sometimes in the process a solution NIH (not invented here) by any party turns up and is accepted by all because ego is not involved. The Japanese call this 'roku'. Primary driver: the dice of God

There are others and combinations of the above. The best standards are those evolved over longer times through some procedure such as 'natural selection'. But when time is of the essence, an ad-hoc committee representing all parties is the weapon of choice.

Standards have their plus side in the facilitation of exchange. But standards also have their minus side, particularly single standards. As an example, it is proposed that a standard curriculum be adopted by all public schools. It is clear that

such a single standard would do more than create a citizenry possessing better communication skills, it would constitute a procedural monopoly and become a powerful tool for manipulation and social control. Such a monopolistic standard leads to creative closure, in having authority over breadth, it stifles variety and localizes depth. It leads to homogenization (which it was designed to do in the first place), limiting choice and options and hence braking creativity and progress. In addition are other exploitive appendages of monopoly such as special privilege and denial of access. All this relevant to single standards.

Multiple standards do not have many of these negative aspects, but their effective use requires they be supplemented with middleware. Hence, an important question that emerges from the above considerations is: When should effort be directed to instituting a single standard and when is it best to settle for multiple standards and introduce middleware?

WHAT IS MIDDLEWARE?

Whenever, because of technological, economic, or organizational difficulties, multiple standards cannot be replaced by a single standard, a middleware net can be set up to allow the various standards to communicate and thus allow universal exchange between clients. In this sense middleware is a "meta-standard", not linking clients but linking standards. The distinction, then, between standards and middleware lies in the entities that are linked. Standards link the nodes of a network, middleware links networks.

We have noted some of the negative aspects of single standards. The hierarchical organization of standards (or networks) introduced by the use of middleware eliminates most of these. The evolution of barter into monetary exchange illustrates the recognition of the superiority of a middleware organization of trade. We are currently faced with solving universal exchange of data (communication), that was solved for universal exchange of goods (commerce) by the middleware called money. But before trade there was language, the first standard allowing communication between individuals of their needs and wants. Can we find a middleware that will bridge all our linguistic standards?

SOME ARGUABLE CONCLUSIONS

1) Whenever two or more standards co-exist, middleware is a better solution than instituting a single standard.
2) There may exist sets of standards for which there is no middleware.
3) What starts as middleware may itself evolve into a single standard.
4) Standards require an increase of intersect and therefore a diminution of union. Translation: Networks and standards promote homogenization at the price of options and creativity.

FIGRUND1.WP6 November 17, 1996

cf. 1996-61
1996-65

THE UNIVERSE CONSISTS OF TWO LEVELS, A FIGURE AND A GROUND.

‣ The Ground is a vast vibratory system, like a complex drum, capable of vibrating in many modes. The spacings of its nodes are determined by the three dimensionless numbers: α, μ, and S where

α is the fine structure constant = 0.007297353
μ is the mass ratio proton to electron = 1816.152701
S is the ratio of the coulomb to the gravitational force, $= 2.269239 \times 10^{39}$

‣ The Figure is the material universe whose basic modules are action packets [dimensionsally = ML^2/T] defined by the fundamental constants: $\hbar$, c, and G where

$\hbar$ is Planck's constant $[ML^2/T] = 1.054573 \times 10^{-27}$ cgs
c is the velocity of light $[L/T] = 2.997925 \times 10^{10}$ cgs
G is Newton's constant $[L^3/MT^2] = 6.672599 \times 10^{-8}$ cgs

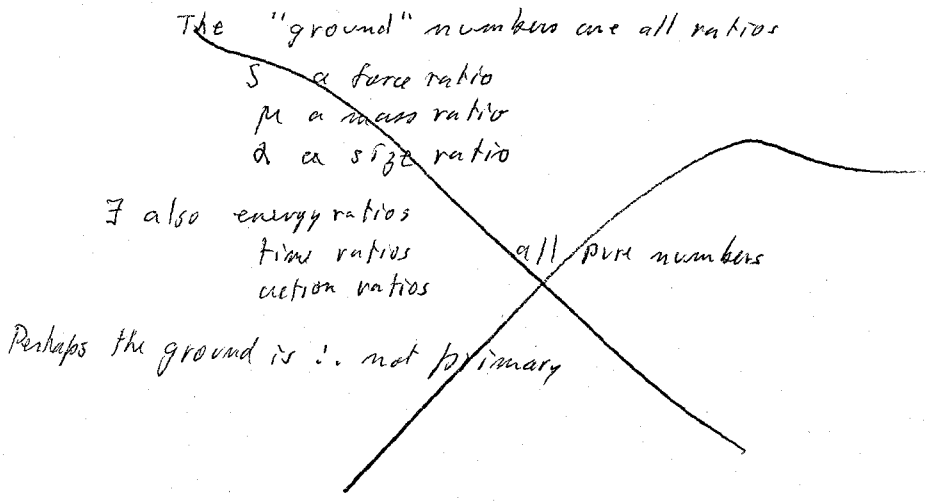
The action packet, sometimes called the Planck particle, has the values:

$m_p = 2.176710 \times 10^{-5}$ grams
$l_p = 1.616050 \times 10^{-33}$ centimeters
$t_p = 5.390560 \times 10^{-44}$ seconds

The interaction of these two levels creates a universe. Many figures are possible with the same Ground. However, what actually occurs depends on the values of the constants $\hbar$, c, and G. The vibratory system which supports various dynamics may also be alterable, but whatever its structure, it provides the "theme" within whose template all "variations on the theme" take place.

Since material existence occurs at the nodes, the organization of the action modules and their transforms is governed by the locations of the nodes. The largest net of nodes is set by S or $\sqrt{S}$, giving a "fractal" structure to the universe. Small scale nets are determined by α and μ in various combinations. These several nets of nodes provide many templates by means of which all possible material entities are formed.

The two levels involved are those of the templates and those of the packets. These levels constitute a basic dualism underlying the universe. What can occur is defined by the Ground, what does occur is open but infected with what has already occurred. But beyond the necessity of this dualism lies the question of its sufficiency. Is a third element required to make it happen?


The "ground" numbers are all ratios
S a force ratio
μ a mass ratio
α a size ratio
∃ also energy ratios
time ratios
action ratios
all pure numbers
Perhaps the ground is ∴ not primary

SOME SUPPLEMENTARY INPUTS:

- A dynamic sub-system of the cosmos evolves so as to maximize its options and potentialities. This evolution is counter to the second law of thermodynamics. cf. Gurdieff's Cosmogony 1995 #25
- The cutting edge of such an evolving system gravitates toward a region rich in alternatives, resulting in existence occurring where the density of alternate possibilities is a maximum. (usually at some interface or interstice) (How does this jibe with matter occuring at nodes?)
- The universe does not march to the beat of a single drummer. The clock rate at any locality varies inversely with the square root of the local density. Change or evolution is most rapid where the mass density is greatest.

The world consists of many facets (or domains) separated by fault lines (~ nodes?) These facets are multiplexed in many ways across the fault lines (boundaries)

Metaphor of drum head

- What evolves is the result of the interplay of homogenizing forces (such as gravity and the 2nd law of thermodynamics) with a general uniqueness principle. Either emergence, complexity, organization occurs or extinction ensues.

Is the inflationary universe explicable alternatively by a time rate of change?

TIMEAGIN.WP6 November 18, 1996

SOME BASIC FACETS of TIME

It is clear that the word *time* is used to cover many experiences and many phenomena.

1) Time assymmetry Past/Future
   - The arrow of time
   - Differences between past and future
   - Causality and Finality
   - Memory, recollection, vs. Vision, imagination
   - Role of Belief
   - Verb tenses

2) Time Present and not-Present, Now/Then
   - The present, "width" of now, temporal resolving power
   - Present, determinator, decker
   - Determinism and open endedness
   - Verb modes

3) Time and Eternity
   - Outside of time, Archimedes' point of view
   - The phenomenon of "recognition" (as opposed to recollection)
   - Beginnings, endings, and no-beginnings, no-endings
   - Everywhen and Nowhen

4) Time and Energy
   - Time: quantity and quality, duration and "windows"
   - Chronos: time; Kairos: timing *Linear & Cyclical time*
   - Heisenberg's time x energy = h
   - Energy transferred in the present, information transferred in future
   - Power of Belief, power of imagination
   - Objective (clock) time and Subjective (mind) time

5) Time and Template
   - Time as the third element of energy and information
   - Time as the source of dynamic
   - Aristotle's or ~~change~~ evolution time, Kepler's or density time
   - Other dimensional times

CHON the ubiquitous cosmic clocks

In the evolution of the universe a sequence of clocks took charge. First, Plancks clock @ 10^{-42} sec, Baryon clock @ 10^{-3} sec, atomic clock 10^{3} sec

THE GENERAL UNIQUENESS PRINCIPLE

Once we talked about why Brahma created the world and asked what he had in mind in doing it. Of course, from where we stand, we cannot read Brahma's mind or ascertain his purposes. All we, who are imbedded in his world, can do is look at what is and what happens and try to figure it out. If it is true, as has been said, that we were created in his image, then we should be able to think it out the way he did. Anyway, keeping in mind it is always speculation, let's give it a try:

Since Brahma knew the algorithms he laid out and their consequences, what could he learn from running the program? Maybe he just enjoyed it as some sort of game, but then if all were determined, the outcome was known in advance, so why? It seems as though the answer to this may lie in Brahma was looking for something not known beforehand. He set up and knew the initial conditions and boundary conditions--the theme, so to speak, but he was interested in the details, the variations on the theme that might occur. The boundaries were fixed, but what could happen within those boundaries could take countless paths and forms. It was these possibilities that fascinated Brahma. And if variety was what Brahma sought, then in some way he had to include in his algorithms a way to protect it.

But as we look at the world, it seems that the algorithims threaten variety. We have observed a tendency toward homogenization, which we have labeled the second law of thermodynamics. Over time all seems to come to the same temperature, to reach a condition where no more exchanges take place. Exchanges can occur only between modules that are different, and every exchange reduces differences. So in time, when the modules become the same they have nothing to say to each other. Eddington has said that uniform sameness is the equivalent of non-existence. So a completely homogenized world would cease to exist.

But besides the second law of thermodynamics, other algorithms exist. One of these was noted by Wolfgang Pauli, and is called the Pauli Exclusion Principle. This says that no two atoms can be in exactly the same state. Their defining parameters must always assume different values.
This kind of exclusion reminds us of a very common exclusion observed on the macro level: No two material objects can occupy the same space at the same time. Here the parameters are space and time. Perhaps these two exclusion principles are part of a more general, more comprehensive exclusion principle: **No two entities in the universe are allowed to be exactly the same.** [We shall call this the General uniqueness Principle or GUP]

But here we seem to have algorithms in conflict. The second law tending toward homogenization and the general uniqueness principle [GUP] opposing it. What happens when these opposing principles interact? When two entities, after many exchanges are down to but a single difference, and when one additional exchange would make them the same, and thus come into violation of the GUP, then they could combine and the two become one, an unique entity that did not exist before. Thus the interaction of the second law and GUP effects morphogenesis. The refuge of entities about to suffer the fate of Eddington's principle is to build complexity !

GENRUNIQ.WPG

96/11/26

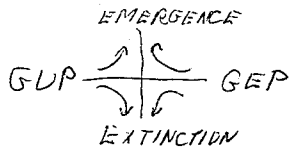
Yellow Book GUP - GEP Topics

96/11/19 Bus SR → SF
96/11/19 Flight SF → Denver
96/11/20 6704
96/12/01 6704

New Book

96/12/04 6704

Are corporate mergers → complexity, emergence
or are they a form of extinction.?
e.g. Aerospace, Telecommunication, computer



After emergence, if there is no internalization → pathology {[→ extinction.?]
{[Ratna Sambhava]} Ken Wilber

⇒ all GUP ↔ GEP goes to emergence ?
No internalization then → extinction .

Every real number is unique
[∴ math ~ explaining the cosmos]

Paul Davis shows how binary numbers can differ at some decimal place
{[connect this to Hamming Space]}
{[[Giving a method to study uniqueness and
homogenization

Truncation (of a number) is an homogenization process

But preservation of uniqueness alone would not assure Brahma of having his variety. It is also necessary that something new be created.

The Pauli Exclusion Principle:

In an atom there can never be two or more electrons with the same 4 quantum numbers.

The 4 quantum numbers defining orbits:

s	spin	rotation +, −
n	shell	~ energy
l		~ angular momentum, revolution
m	tilt	inclination of orbit

Uniqueness in atoms is basic to chemical bonding, the formation of molecules, i.e. → complexity

See also 1995 #25 Gurdieff's Cosmogony, + Heisenberg quote
Successive Removal of Constraints allowing access to potential

See
Some notes on back of 1996 #45 re Science & the already homogenized

A TABLE OF EGYPTIAN PYRAMIDS

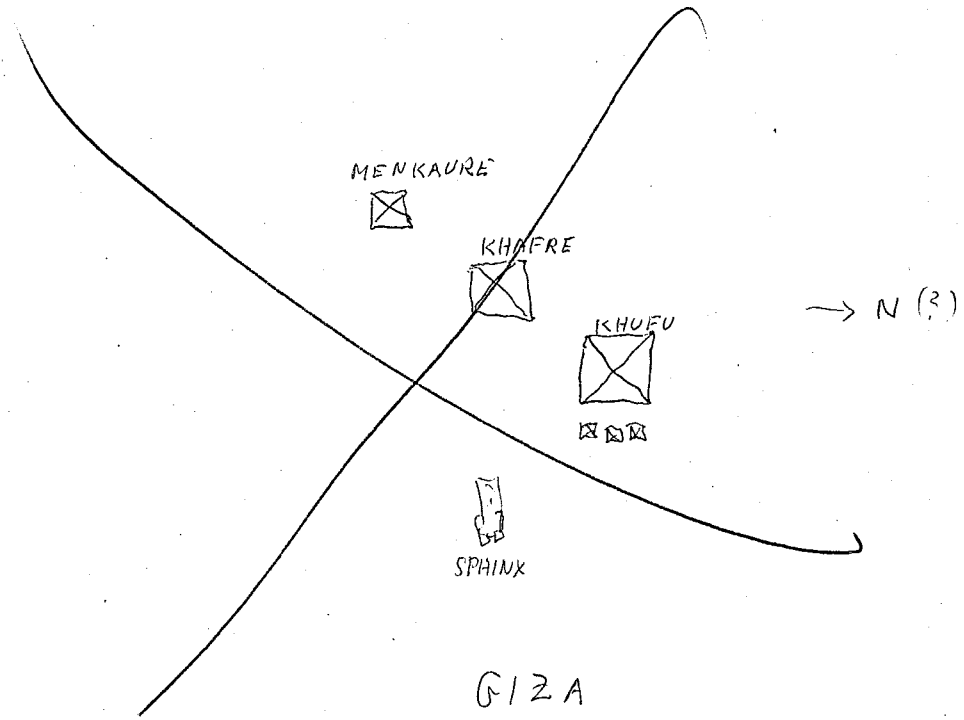
PYRAMID	DATE	LOCATION	PHARAOH	HEIGHT	SLOPE	NOTES
SIX STEP	2630 BC	SAQQARA	DJOSER	204 ft	48°	STEP
SEVEN STEP	ca 2600 BC	MAIDUM	SNEFRU	306 ft	51°	SMOOTH FACED or 52.5°?
BENT	ca 2600 BC	DAHSHUR	SNEFRU	344 ft	54°; 43°	TWO SLOPES 54°41'
NORTHERN	ca 2600 BC	DAHSHUR	SNEFRU	341 ft	43°	"NORTHERN STONE" = RED?
GREAT	2550 BC	GIZA	KHUFU	481 ft	51°	
"SECOND"	2520 BC	GIZA	KHAFRE	471 ft	53°	
"THIRD"		GIZA	MENKAURE	203 ft.	51°	
	2250 BC	SAQQARA	PEPI II	172 ft	53°	

Data taken from the National Geographic Society, January 1995

Pharaohs: Snefru, Khufu, Khafre, Menkaure

cf. Tombs at Golgonda

PYRTABLE. WPG
96/11/27



GIZA

LOOTING NUMBERS FROM THE GREAT PYRAMID

For centuries the pyramids of Egypt have been looted for the treasures buried with the Pharaohs, for the stones from which they were built, and for information inscribed in the hieroglyphs. The present book follows in this tradition of looting, not for the metal and jewel treasure, not for the stone, not for glyphic messages, but for the numerical wisdom presumed to be encoded in the pyramid's dimensions. This kind of looting is not so ancient as that for treasure and stone, in fact it has been going on for only a couple of centuries. But it has in common with the other forms of looting, that what is taken from the pyramid is put to the uses of the looters, not to the uses originally intended. That is to say what we read in the pyramid's dimensions is in our heads, not necessarily in the heads of the builders. or as Sir Fred Hoyle said with respect to Stonehenge, " We do not know for what purpose the builders made the structure, but we know what we can do with it. We can use it to predict eclipses." So with the pyramid. We do not know what numerical quantities the builders had in mind in the construction, but we are free to interpret those we discover according to our own insights. Although it is great fun to speculate, we must avoid the temptation to project our interpretations onto the culture of the builders.

Past looters of the Great Pyramid seem to belong to one of two schools: the Π school or the Φ school. Those looters who are engineering minded, tend to the Π school view, while those who are mathematically minded tend to the Φ school view. The fact that there is an approximate equivalence of Π and Φ through the relation, $\Phi^2 = 5\Pi/6$, makes it almost impossible to decide which school is right, that is, which school the actual builders belonged to, (if either). This book will not attempt to decide between the Π and Φ schools. Rather its intention is to confuse the matter further by introducing a few more schools. Nor does it believe that this new loot leaves nothing further to be stolen. There must remain many more dimensional chambers yet to be explored and looted.

First, let us look at some of the loot that is already out there on exhibit in various books and in the museums of certain occult organizations.

The Orion Loot
Prophetic Loot

The Imagination Police
The Loot Thieves

PYRLOOT ~~WPG~~
96/11/27

NEEDS, WANTS, AND SATISFACTION

Gandhi said that there is enough for everyone's need but by no means enough for everyone's greed. Clearly every human is stretched on a psychological and spiritual rack between what is needed and what is wanted. The difference between wants and needs is very much like a cybernetic error signal. Only when the difference is zero is life in harmony with the world.

We might formulate the issue using the following equations and inequalities:

$D = (W - N) =$ wants minus needs

Case I $D > 0$, Wants what is not needed. Wants exceed needs. This is the dysfunction of greed, which leads both to the spiritual impoverishment of the wanter and the physical impoverishment of others. Further there is no static value for this difference. It has a built in dynamic of ever seeking the difference to increase. It sometimes takes on an absurd form of not even being concerned with its value, but only with its relation to others--a game to win. We have the example of the richest 10 people, each of whose income is in the multiple billions per year. They are not satisfied with enough, not even with too much. Their contest is over who is to have the top income of the ten. And even the winner of this race finds no satisfaction. Where is some new world to conquer? Their greed becomes an addiction. $D > 0$ is the dynamic of the cancer cell.

Case II $D = 0$, Want and need in balance. This is the middle way of the Buddhist, the way that leads to harmony and peace. The way that avoids envy and strife. The way that is self directed and does not have to look to the Joneses to know what to pursue. Or to look about to find someone else's definition of success to copy. In this state satisfaction is transparent, it is not felt because it is always there. $D = 0$ is not static, but rather is the condition of true freedom.

Case III $D < 0$, Needs what is not wanted. This Case like Case I is dysfunctional. For example, wanting to give up nicotine, but needing it; or in a relationship, needing a person, but wanting to be free of them. This is the state of the teenager, wanting to be free of parents but still needing them. It is the state of the aged, not wanting to be dependent, but in need of support. Indeed, support is something most need but wish not to have to have. This is a necessary state in transitions, but not an end state. And certainly not a state of satisfaction. This is also the state of not understanding what is needed and being misled by pursuits that ultimately prove hollow. . $D < 0$ is a state of discontent and depression.

On the political level Case I is looking out for the wants of the affluent, and ignoring the needs of the rest. The government of lobbyists of the powerful opposing the wishes of the many. In capitalism, not only are the many without access to the "free market", but the market is a market of the wants of the affluent rather than needs of the many. In a Case I economy social imbalance continues to grow.

Jesus version of Case II is, "Let ~~he~~ him who has two coats give one to him with no coat." Marx' version of Case II is, "To each according to his needs, and from each according to his abilities".

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96/11/27

After I die:

I shall cease to be a figure
that I may rejoin the Ground
I shall be released by Chronos
that I may embrace Kairos
I shall no longer dwell just here
that I may be present in every place
I shall no longer be separated
that I may find a home in every heart
I shall no longer need to sleep
that I may refresh those who weary
I shall no longer bear pain
that I may bring healing to all who hurt
I shall be filled with peace
that I may share it
with all who struggle in life.

I shall lead the bee to the flower

I shall lead the bird to the sky

I shall lead the child to the garden

I shall lead the maiden to her lover

I shall lead the knight to the grail

I shall lead the sage to the mountain

I shall lead humankind to the stars

I shall come before the Highest
who receives and returns
Life, Love, and Light to all below.

~~THANOS2.WP6 96/12/30~~
Revision of THANOS.WP6 96/12/18

WHEN I DIE,

I SHALL FLY ON THE WINGS OF THE STORM WITH QUETZALCOATL

I SHALL RIDE IN THE CHARIOT WITH KRISHNA

I SHALL DANCE IN THE FLAMES WITH SHIVA

I SHALL CARRY THE CROSS WITH CHRIST

I SHALL CONTEMPLATE SILENCE WITH THE BUDDHA

I SHALL CLEAR THE PATH WITH GREEN TARA

I SHALL HEAL WITH BEKEDZAYA

I SHALL BEFRIEND WITH CHENREZIG

I SHALL LEARN IN DIALOGUE WITH MANJUSRI

I SHALL PROTECT WITH MAHAKALA

I SHALL RECORD WITH DORJE CHANG

THANOS.WPG
96/12/18

Death must be earned by Dying.
Lt Kiang

REMEMBERING CARL

The first time I met Carl Sagan was at a scientific meeting in San Antonio, Texas. I think it was in 1958. He had come to the meeting hoping to meet some astronomers, and was wandering up and down the halls of the hotel looking for chance encounters, anxious to get connected officially, but was generally ignored. Only a fellow from RAND, Steve Dole, took an interest in him and introduced Carl around. Steve introduced him to me. I felt him to be more a "star struck" enthusiast for the romantic side of astronomy and space travel than a serious researcher. My impression seems also to have been the one shared by most scientists and the one that unfairly stuck with him to the end. Indeed it was Carl's enthusiasm for the venture into space, optically and physically, and his superb ability to communicate this enthusiasm that built his career.

My second encounter with Carl was after the meeting of the International Astronomical Union in Berkeley in 1961. Donna and I along with many other astronomers were invited to a party at his house in the Berkeley hills. Carl was no longer a wandering youth. He was capable and confident. We all listened to his ideas with interest and were struck with his breadth of knowledge. He had spread from astronomy to physics, to meteorology and now into biology. Carl had become a renaissance man. Shortly afterwards Carl was a guest at a party at our house in Topanga. On this occassion at one point during the evening the conversation turned to the subject of paranormal psychology. Carl knew a game to test mental telepathy. Two people were to stand a few feet apart with their backs to each other and at a signal from the referee raise from zero to ten fingers in such a manner that the total number of fingers raised by both participants would equal ten. Depending on the way you look at it the probability of success was about one in ten. Now and then a couple made a hit and came up with a combination of fingers that added up to ten. Then Donna and I were pursuaded to try. We came up with ten the first time! Then again on the second try!, then again, and again, ...up to ten successes in a row. Carl didn't believe it. He wanted to know how we were signalling. We weren't. It may have been a fluke with a probability of 1 in 10^{10} of happening, but there was no signalling or cheating. We had challenged Carl's convictions in the non-existence of the para-normal.

Carl later became an editor and contributor to the Skeptical Enquirer, a journal dedicated to debunking all forms of PSI, astrology, ancient astronauts, etc. And in all his publications he was extremely critical of pseudo-science, superstition, the non-rational, and unscientific. He was a disciple of Democritos, a critic of Plato, and in his writing, speaking, and TV appearances became a missionary for nineteenth century materialism.

Carl visited RAND from time to time and worked with the staff on researches in planetary science. Several of us had many lunches

CRL SAGAN, WP6

together. In 1962 Zdenek Kopal and I founded the Journal, "ICARUS", to provide a place for the publication of the growing number of research papers in solar system science. A few years later I left RAND to go with a new aerospace lab. I felt that I could no longer do justice to my editorial duties with ICARUS, and needed a successor. I felt that Carl would be an ideal choice. My last meeting with Carl was in a restaurant behind RAND in which he agreed to take over ICARUS and we worked out the details together

. After that Carl had a meteoric rise. He became a celebrity with his many appearances on the Johnny Carlson Show. And achieved significant renown for his TV show, COSMOS. With the possible exception of Isaac Asimov, Carl has been the greatest popularizer of science in this country in this century.

The last time I saw Carl was in June of 1994, some 25 years after our ICARUS lunch. The occassion was the 100th anniversary of the founding of the Lowell Observatory. Carl came to Flagstaff and gave a talk in which he exhonerated Percival Lowell. Because Lowell had believed in life on Mars and had felt the "canals" to be the artifacts of intelligent beings, he had been denegrated and his other achievements discounted. Carl reminded us of those other achievements and emphasized that it was far more important to blaze the trail and inspire others to follow than to be right in every detail. Then Carl paid homage: it was Percival Lowell himself who had played a major role in inspiring him to follow the path to the stars. We hope that on some occassion in the next century, some future followers of the path to the stars upon their return from Mars, will pay their homage to the inspiration of Carl. His greatest contributions will prove to be those yet to come.

In Memoriam

CARL SAGAN

November 9, 1934 December 20, 1996

SAGAN2.WP6 April 2, 1997

I read somewhere that Carl Sagan, like Thomas Huxley the great defender of Darwin, at one point wished that the scientific view of the world could support a dimension of reality that permitted life after death. Carl said he longed to have more time with his father. Both men, Huxley and Sagan, let their rational aspect rule out other paths to knowing that are available to humans.

Carl wanted **proof** for the existence of God. What is proof? Proof is a demonstration using a sequence of arguments "whenever A happens B will also happen". Proof thus restricts itself to that which is causally determined. It can play no role where there is option, choice, or freedom. Those trained in science, which studies only the repeatable, reproducible, and causally deterministic aspects of the world, lose sight of the fact that much that happens in the world is not repeatable, but is special and unique. Science looks at, and can only look at, a particular subset of human experience. In the 20th century the deterministic mechanistic worldview that science built over a period of three centuries was overturned by science itself. I am referring to current interpretations of quantum reality.

With all of this well known to most physicists and philosophers of science, it is hard to understand why Carl was still hung up on mechanistic materialism. But all of his writing was pervaded with either overt or subliminal preaching of this 18th century philosophy. But what interests me is that Carl nonetheless was a believer. His heaven was not metaphysical, it was physical. It was to be reached literally through our development of space flight. For Carl, God would be found when we encountered life and intelligence beyond the earth.

SLAVERY

There is great merit in the generosity of a master when he is kind to a slave; but there is greater merit in the slave when he ignores the wrongs which he suffers and cherishes kindness and good will to all mankind. He will cease to hate his oppressors even when powerless to resist their usurpation and will with compassion pity their arrogance.

--Shakamuni

A slave acquires no equity in this world. But no one can live without meaning, which is in essence the acquisition of some sort of equity. Slaves therefore are forced to seek their equity in other worlds. Generally slaves are required to do those tasks that those with choice elect not to do. In ancient times such tasks included making calculations. It is thus that the slave class mastered numbers and developed arithmetic. But when such skills were recognized as possessing power, they were taken over by the priest class and forbidden to the slaves. Slave generated equity is always taken from them. But in the period of time during which slaves develop an equity not recognized or not valued by their masters, they may amass a great store of non-material riches. It is ever so.

In America the black slaves built for themselves a rich spiritual equity, a powerful spiritual heritage that remains one of the great spiritual resources of America today. It is offered to all, but only those who have walked the path of humiliation and rejection have the capacity to recognize and receive it. The Blacks know the treasure they have laid up in heaven. Whites have no access to it. For once there is a slave generated equity that cannot be taken from them nor from their descendants. It takes a great folk to turn bondage into treasure. When freedom is denied it always breaks out elsewhere. The human spirit can never be imprisoned, it will always find a way to loose the bonds that some would place on it.

Today we have yet to recognize the sustaining contributions that the slave class everywhere and throughout history has made to culture and civilization. Our histories are records of the wars and usurpations of the master class, but they are only pretenders and parasites. The spiritual advance of humanity has been borne along a bloodied track by the humble and despised, ever renewed by the sacrifices of cross and stake.

"For where there is much suffering
there is also great bliss"

SUBSCRAP.ASH

DATE[06-16-97
NUMBER[21
SUBJ[APOLOGY
NOTE[Recently several congressmen have proposed that the United States officially apologize to African Americans for the fact of slavery in our past history. To me this is just another manifestation of the "Christian Disease", which goes through the stages: "We made a mistake, We are sorry"; then having cleared consciences by such a confession, follows a feel good stage, allowing guiltless resumption of the business as usual stage.

What African Americans need is not an apology for the past, they need changes leading to a future of equity and opportunity. What those who claim to be Christians need is not repentence, but metanoia, not just an expression of being sorry, but a real change in the way they think, feel, and live their lives.
]

Nor should there be an apology for the holocaust.
Only those who ~~perpetrated~~ it can apologize for it.
and they ~~could not~~, nor could not.
We are not responsible for it - and should ~~have~~ no guilt for it. But What we are responsible for is our own thoughts and actions and if the holocaust serves to direct our thoughts and actions toward a higher ~~life~~ plan, then we may live so that such a horror shall never happen again. But this transformation is the result of metanoia — not guilt!

We cannot correct the past
We can only redirect the future.

If an apology were to serve to awaken a new consciousness - good. But if it is only a feel good exercise — forget it.

97/11/01 ALL SAINTS DAY

Note that slavery destroyed the family
children taken from parents etc.

Today the family is also being destroyed
by necessity for mothers to work:

The common cause:

Bottom Line Capitalism

1) • Everything must justify its existence
by making (or showing)
a profit. else away with it.

2) • [One exception: consumers are needed]
but 1) is doing away with them
creating a feedback loop that will
destroy the system.