

SCRAPS
1994

ON REPETITION

INDUCTION VS. DEDUCTION

The sage Li Kiang once said, "I was not convinced by the logic of the argument, but I was persuaded by the repetition of the argument." Whether Li Kiang was merely confirming the basic tool of the advertizing profession or stating that the persuasive power of induction is superior to that of deduction, is not known. Maybe he meant both, or neither. But it is true that repetition carries more impact for most of us than does logic. Perhaps this is because we came to the truth that the sun rises every morning through repetition of the act, not by logic. (Later through logical arguments the repetitive rising of the sun could be "explained", but even so, the explanation was based on postulates having their origin in repetition.)

Another point, repetition is more inclusive than logic. Logic suffers from its built-in constraint of consistency, while what is repeated need not be consistent with anything else that is repeated. Thus induction allows the acceptance of a larger world than does deduction. And induction's world does not allow itself to be forced into the bottle of consistency: **Ein Theorie, ein Entwurf, ein Gott.** We conclude that Logic is not the best epistemological tool for encountering this world.

There is an ancient Persian proverb that states that there are two kinds of truth: Truth established by repetition, and truth independent of repetition. One kind requires perpetual repetition to preserve its status as truth, the other kind is true without any fenestrations. [Which kind is this proverb?] But here we must use logic to keep from falling into a trap. We must discriminate between what or who is doing the repeating. Repetitive sunrises establish a physical truth or law. Repetitive advertisements establish "Pavlovian" truths, truths imbedded in the mind of a beholder, but not necessarily existing elsewhere. That natural truth derives from repetition may lead us to infer that repetition per se will always manifest such truth. But this is inductively not so. Every set of repetitions does not lead to objective truth, some merely transform the observer into Pavlov's dog. Granting the truth of the Persian adage, How are we to know which inductive truths are objective, which subjective. We concur that repetition, or persistence, has the power to transform, and hence that repetition either reveals

what is or guides what becomes: present truth or future truth.

Science deals with repetitively established truth. It is based on reproducibility, a species of repetition. In general what is not repetitive is beyond the ken of science. This raises some interesting questions with regard to scientific cosmology. If there exists but one universe and its origin was a one time big bang, lacking repetition, the universal lies outside the ken of science. For science to deal with cosmology, the universe must be either fractal-like, that is repetition of the originating process occurring repeatedly but on different scales, or there must be multiple universes of some sort.

FUTURE HEADLINES

KLAN TO ADMIT BLACKS

Atlanta GA. (Universal Press)
January 18, 2014

In an interview today the Grand Imperial Dragon of the Ku Klux Klan announced that the Klan would no longer be restricted to white racists but that racists of any color , regardless of religion, ethnic background or sexual persuasion would be welcome in the Klan. "We must realize that racial differences are not so important to us as preserving and promoting racism. We have much more in common with black racists than we do with white integrationists, and it is time that we recognize the facts. If racism is to survive , racists must forget superficial differences, like color of skin , and unite to present a strong front against the forces of anti-bigotry."

Not all Klan members agreed with the Grand Dragon. Some had reservations. "While it is all right to admit all racists, I think, that sheets must be color coded," said South

Carolina's State Dragon. "For instance, I feel that gays should wear pink sheets instead of white sheets." But others felt that pink ~~pink~~ should be reserved for 'pinkos'.

Past Grand Imperial Dragon, C. R. Malhomme of New Orleans, also feels that the Klan must move racism into the twenty first century. "Current discoveries in the human genome, show that a great deal of human behavior is genetically governed. While skin color is a highly visible genetic basis for racism, bigotry of the future must be based on the genetic differences that manifest themselves in human behavior. " Malhomme added that "Hitler was ahead of the times. Now with genetic engineering we shall be able to build a true master race. "

When interviewed at the AAAA (African American Assertion Alliance) Conference in Jackson last week, Chairman Malcom Z said he didn't see any blacks rushing to join

the Klan. He said that the Klan is withering away and that they are attempting to resuscitate it by opening it to more vital racists. He said, however, that there might be some areas in which cooperation with the Klan might be useful.

A similar response to the Klan's G. I. D. was given by Fritz Kloen, head of the Fourth Reich Movement in the U. S. He thought racists should give each other mutual support in these times of rabid anti-bigotry, but down the road, he affirmed that the Fourth Reich would never compromise its principles of Aryan superiority.

At this printing, whether the Klan can get diverse racists to cooperate is highly uncertain. But one must recognize that racism is entering a new era and old patterns stand to be replaced by a new generation of prejudices and hatreds.

(Medgar Evers)

Edgar ~~Meyers~~^{a Black} sought admission to the Klan was refused and sued. The Supreme Court ruled that the Klan could not refuse membership to any qualified racist.

The parody on the reverse side is not so far off.

In the 02/02/94 Press Democrat (pA3), an article on Neo-Nazis in cyberspace, ~~eggs~~ Germans commend Vladimir Zhirinovskiy (whose father was a Jew) as a "Robin Hood" who wants to protect the down trodden and keep both Germany and Russia ethnically pure.

03/14/94

when I read about the horrible crimes being committed by some individuals, crimes that could only be done by monsters, not humans. I begin to wonder whether we are all of the same species, even though we are all entitled in the same kind of bodies. But even to ask, "Are we all the same species?"² is the first step toward becoming a Nazi.

~~the~~
Muhammad
If One suffers
We all suffer

We are addicted to the visible
The physical is the raw material to be processed into a human being. Some never get processed.

The school boards in Florida mandating the teaching
"America is the best, the best in the world
The best ever"

Ja, wir sind die Master Race
Die Herrenvölk

THE INTERACTION OF CYCLES

The world exhibits both repetitive and non-repetitive change. Sometimes referred to as archetypal and historical change. Whitehead said that without the repetitive component of change, measurement, science, and even knowledge would not be possible. Other philosophers have held that it is only the non-repetitive that supplies meaning to the world. So, from the repetitive comes knowledge, and from the non-repetitive, meaning. [Knowledge is a matter of archetypes, meaning a matter of history.] *WISDOM: a matter of BOTH*

KNOWLEDGE
EXPLANATION
CONTENT
MEANING
CONTEXT

Some cultures have emphasized the repetitive, cyclical, and closed, while others have emphasized the historical, evolutionary, and open. The Mayans, for example, structured their world view around a nested series of complex cycles that interacted much in the same way as gears. The Hebrews, on the other hand emphasized the historical or evolving, a world with a beginning and an end, governed by a teleological or finalistic dynamic. The Western world has in general followed the Hebrew view, looking on the world as open ended, evolving, progressing, having a beginning and an end, a cosmogony and an eschatology. The Eastern world, however, felt there was neither beginning nor ending, only an endless repetition of cycles of various lengths. What was to the West the "ground" of linear change containing various cycles, was to the East only a cycle of great or greatest duration. For the East, the West's linear and open was only the counting of cycles.

Not only the measurement of time depends on the cyclical, but the very concept of time derives from the cyclical. Here we want to consider the different ways in which humans have treated the interaction of cyclical phenomena, which must include the interaction of the cyclical with the non-cyclical, (or with the cycle of great length.) We have noted elsewhere (see HISTCYCL.P51 scraps '93 #6) that open change can be represented by e^{at} , but that the insertion of $i=\sqrt{-1}$ converts the change to cyclical, e^{iat} . The following are some of the forms of cyclical interaction.

- o Gears
- o Phyllotaxy
- o Spirals and Helices
- o Modulation and Beats
- o Sidereal and Synodic
- o Growth curves and envelopes
- o PERI-OIA
- o MUSIC: RHYTHM AND PITCH
- o TABLES (2 DIMENSIONAL CHARTS)
- o TOROIDS, METATOROIDS
- o EPICYCLES

A cycle could be a strange attractor

[What are the standard regions of each?]

Define & Discriminate

- Repetition
- Iteration
- Recursion

torsion modulation

Sometimes it appears as though {phenomena} operate with clock A, another set with clock B, ... These clocks usually are phased, but at times their phases $\rightarrow 0$ and everything happens at once. - accidents, synchronicities, ... etc.

95/01/05

(on a portion of a long line)

If a cycle is represented as a circle, then all parts are the same.

But cycles cannot be so isolated. $\exists > 1$ cycle

\exists a "hierarchy" of cycles - a set of nested cycles

And when a cycle is embedded in another cycle it can no longer be represented by a circle

- e.g. circle-line \rightarrow sine wave
- analogue $\&$
- modulate circles
- spirals etc.
- helices

epicycles cf. Pappus

on each of these all parts are not the same.

This is at ^{the} root of the idea that time has quality e.g. quality \sim curvature which only on a straight line or circle is always the same. (The two forms usually used by physicists)

DECODING AND RE-ENCODING

The product of human exploration of the world is an encoding of our interactions with the world in a code that attempts to be communicable to all humans. We call this encoding of experience: knowledge. From an anthropocentric view, the universe is already encoded and our task is to decode and re-encode it. This is particularly the task of science: the decoding of the world from its natural symbols into a new code consisting of a set of human created symbols (usually linguistic) that we hope will be isomorphic with the original. How faithful our recoding is to the original is an unknown, but it is the best we can do not having possession of the original code book. The fact that our encoded representation of the world seems successfully to reflect in large part the original code has encouraged us to adopt this process. However, we must be aware that from time to time we must revise our code book and on occasions scrap it.

But there are those who hold that this method of decoding and recoding will never give but a dim and approximate view of the original code. It is the mystics who will argue that we, as part of the world, have already been given a copy of the original code book. It resides within us. To observe the outer world, in order to decode it and then to re-encode in terms of an inadequate set of ad hoc symbols, is to the mystic a round-a-bout path to understanding, and one with low probability of coming to the correct code. Better to study and internalize the original code book itself which is in our possession. This would be a more direct path to understanding.

PALAMINO

03/08/94

We encode iteratively. This is done linguistically when a single word comes to stand for the paragraph required to define it on a more elemental level.

Instead of a linear encoding 01100...1100
or an encoding where the special
word is $\{110111001001\}$

We could use $\{3\}$ to signify 2^o order code, $\{\{3\}\}$ etc.
or what is usually done.

We decode, the elemental message
using code book 1.

re-encode using code book 2

decode using code book 2

re-encode using code book 3

It is this iterated process of decoding
creating a new code book and re-encoding
that compacts information

Iteration requires a 3^o symbol 0, 1, -
to designate 2^o and higher level encoding

e.g. 01101101 - 01110011 - 01101111
2^o level code

Better 4 symbols 0, 1, {, }

so we know beginning and end

THE TWO-FOLD NATURE OF TIME

I am repeatedly bothered by questions such as the one posed by the nature of "density" time. It is well known that the period in many systems varies inversely with the square root of the density.

$$(1) \quad \tau = k / \sqrt{\rho}$$

In such systems as a pulsating star whose density varies with the period τ , what is the value of ρ that determines the period? Another example is given by Kepler's Second Law. In an elliptical orbit, the mean density of a binary system varies with the separation of the two objects. If the period depends on the density, and the density on the separation, which density and which separation? For purposes of Kepler's Third Law, of which equation (1) is a special form, we can calibrate the periods against a specific separation or density. In the case of binaries, the semi-major axis is usually chosen. While we can answer the question of what density to choose by calibration, we have not resolved the paradox implied by equation (1) that since ρ is different at each instant of time, τ must also be different at each instant, yet we end up with a single value for τ . Are we talking about two kinds or levels of time when we refer to $\tau(t)$, the period being a function of time? Should not equation (1) be written

$$(2) \quad \tau(t) = k / \sqrt{\rho(t)}$$

and just what is the physical and cognitive difference between τ and t ? Are we talking about the same kind of time in Kepler's Second and Third Laws?

But this is not the only instance in which we encounter a dyadic nature in time. Every physical system, in order to maintain coherence, must have a fast component and a slow component. We recognize this in artificial systems. In the 19th century, railroad operation came to depend on the telegraph, the slow trains and fast wire signals. In the 20th century we see the far more complex airline systems as totally dependent on radio communication, the slow airplanes and the fast wireless signals. And in organic systems, the nervous system operates at high speed relative to the muscular system. Throughout the universe information must move more rapidly than matter. There are fast clocks (zeitgebers) and slow clocks and both are required to tell us "what time it is".

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In the 30's and 40's



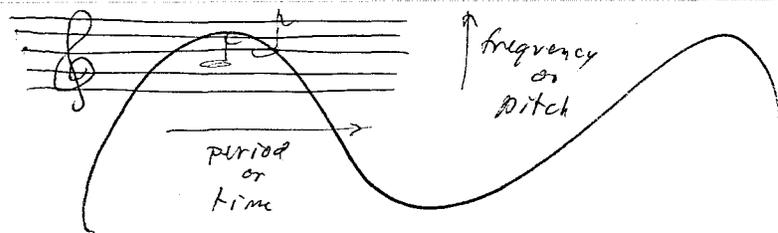
The Mount Wilson astronomer, Gus Stromberg, used ~~to like~~ to point out a paradox that everybody chose to ignore. The beam interferometer mounted on the front of the 100 inch telescope allowed the diameters of near by stars to be measured. The process depended on light originating at the left limb of the star forming an interference pattern with light originating at the right limb. But Stromberg pointed out that for such an interference pattern to be possible, the atoms at the left end and those at the right end must radiate in coherence. That is, they must stay in phase, operate under the baton of the same orchestra director. But the diameter of the star was too great for the velocity of light to serve as director. So how did the atoms know what time it was? What was the fast information system that made interference patterns possible? Some second level kind of time involved?

We have long recognized that time derives from change. Aristotle, and Western scientists ever since, have centered on the particular kind of change we call motion.

$$\text{time} = \text{distance/velocity}$$

But in equation (1) we are encountering time that does not involve motion or even change. Time is a attribute of matter, in particular of the density of matter. But this is exactly what the general theory of relativity tells us. Both space and time are attributes of matter. With no matter present, there would be neither space nor time. Since frequency is the inverse of period, equation (1) tells us that frequency is proportional to the square root of density. If the density is zero, the frequency becomes zero (the period, infinite), and if the density is high the frequency becomes high (is there an upper bound?). *Planck time? 10⁴³ hertz²*

The two ways of looking at time, as period or as frequency, constitute another dyadic aspect of time. Here music comes to mind. Music consists of a series of events, call them notes, each with a period or duration and each with a pitch or frequency. Music is usually represented by a two dimensional device called a staff, on which the horizontal axis represents rhythm and the vertical axis represents pitch. The interesting question is where is the interface between time rates we term rhythm and those we term pitch? Pitch usually is the realm of the ear, going as low as say 30 hertz. Rhythm is the realm of feeling, going as fast as say 8 hertz. So somewhere in the neighborhood of a tenth of a second, we make a switch between period and frequency, between rhythm and pitch. It is interesting that the lepton zeitgeber (see The Zeitgebers, Scraps 93 #38) has a period of 0.120537 seconds corresponding to a frequency of 8.296 hertz. Perhaps this is the interface. Durations longer than 1/8 second we respond to as duration and



0

measure in seconds, minutes, ... years. Durations shorter than 1/8 of a second we invert and respond to as frequency and measure in hertz, kilohertz, megahertz, This seems to be the human ^{perceived} time-frequency interface. It would be wrong to assume that other creatures and systems possess the same one.

If we take the positive axis of real numbers as a metaphor, then in the interval 1 to ∞ we express a number as n, its period or duration; in the interval 0 to 1 we express a number as 1/n, its frequency. In the metaphor the number 1 is the time-frequency interface.

We are left with the question, should we write A or B? where

check and re-do this

$$A) = \tau = \frac{k}{\sqrt{\rho(t)}} ; B) = \tau(t) = \frac{k}{\sqrt{\rho(t)}}$$

Writing A infers that τ , though constant in length, is in some way a function of t , that it varies from instant to instant. Since it is not the length of the cycle that varies, it is something else. Perhaps it could be a "quality" of time, a large ρ indicating one quality, a small ρ another, but with the mean value of ρ determining the length of τ .

We might then write

$$q(t) = \frac{k}{\sqrt{\rho(t)}}$$

where $q(t)$ is a quality.

91-#6

88

Ref: 91-#5, 91-#18, 93-#6, 93-#38, 93-#42, 94-#5, 94-#6, 94-#7, 94-#10, 94-#11, 94-#12, 97-#3 on music

∃ typo's here with regard to ρ and $\bar{\rho}$

A) $\tau = \frac{k}{\sqrt{\rho(t)}}$

MORE ON THE DYADIC NATURE OF TIME

In considering the elliptical orbit of a binary system in terms of system density, the mass is given by the sum of the masses of the two bodies and the R used to determine the volume is the semi-major axis, which is

$$(R_{min} + R_{max}) / 2$$

The density so calculated gives the correct answer for the values of the period when used in Kepler's third law. Although the density in an elliptical orbit is a function of time, it is continuously varying, so the period is determined by the mean value of the density. So the correct interpretation of the equation would be

$$\tau = \frac{k}{\sqrt{\bar{\rho}}}$$

where $\bar{\rho}$ is the mean density.

In the case of a system of three bodies, how would the mean density be calculated? This question leads to the heart of the difficulties involved in solving the general three body problem. There is no such thing as a mean density in this case and the system is aperiodic. In the restricted problem of three bodies, such as the sun, earth, moon configuration, calculation of a mean value of R should be possible and the system is periodic.

* One ^{possible and imaginative} speculative way of calculating the density would be to pass a circle through the three bodies and take the radius of the circle as the value of R. Here the smallest R would be a value close to the astronomical unit, while the largest R would be almost infinite when the three bodies were near alignment, as ~~in the~~ ^{during} case of an eclipse. Returning to the earlier interpretation of the equation, that τ is a function of t, continuously varying, then the period would become exceedingly long as the density drops toward zero ^{during} at the time of an eclipse. Perhaps this $\tau \rightarrow \infty$ during an eclipse participates in giving an eclipse its awesomeness.

The feeling of eternity

Use a sphere for 4 bodies

for n > 4, what?

Best to use bounding spheres

One method of calculation for $\tau = \frac{k}{\sqrt{\rho}}$

** another for $\tau(t) = \frac{k}{\sqrt{\rho(t)}}$*

Consider a satellite

The higher, the slower, the longer the period, the smaller the density of the system

$$T(t) = \frac{2\pi R(t)^{3/2}}{\sqrt{GM}} \quad v = \frac{2\pi R}{T} = \sqrt{\frac{GM}{R}}$$

i.e. T corresponds to the circular orbit of radius R
for a given mass

If R changes with time T changes with time
and if ρ " " " " " " " " " " " "

\exists a set of instantaneous periods

$T(t)$
one kind of time - the period or cycle length
is a function of another kind of time
parameter varying with another kind of time

But t time is also counting of periods or cycles:

\therefore time is a hierarchy of cycles

We count seconds to get minutes

count minutes to get hours

count hours to get days

count days to get years

MORE ABOUT THE WEEK

In TIMWEEK1.P51, (1991-#88), several properties of the Schuster period were mentioned. To those reported there should be added the very important property of equatorial fragmentation. The Schuster period is the limiting rotational period for a rotating earth not to disintegrate. For the earth to rotate with a period shorter than 84 minutes, centrifugal force at the equator would exceed the gravitational pull, and the planet would become unstable with mountains flying off into space. But the good news is that we have a considerable "spin safety factor" against that occurring. One rotation period is 1440 minutes, the Schuster period is 84 minutes, giving a safety factor of

$$\frac{1440}{84} = \frac{120}{7} = 17\frac{1}{7}$$

This ratio of 120/7 is also the ratio of Schuster periods to days in a week. Hence the earth's spin safety factor is implicit in the seven day week.

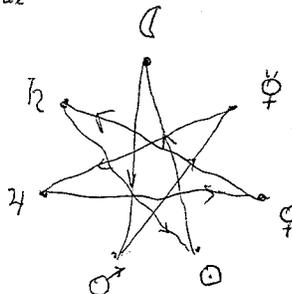
We have seen that the week is the smallest number of earth rotation periods with an integral number of Schuster periods. But also of interest are the "beat periods" between the Schuster cycle and the rotation cycle. Beat frequencies, f_b , are given by

$$f_s \pm f_r = f_b$$

where f_s and f_r are the Schuster and rotational frequencies respectively. Substituting 5/7 hours and 1/24 hours, we get beat periods of 1^h 29^m 12^s and 1^h 19^m 22^s. These values are very close to 3/2 hour and 4/3 hour, which divide the 24 hour day into 16 and 18 intervals respectively. It seems that again the ancients were in touch with something we have lost. The division of daylight time into 9 "hours" was an ancient practice. (Still reflected in the Prime, Terce, Sext, None of the monastic day) Did this division of time into nine instead of twelve periods come from subtle or overt experience of the Schuster beat periods?

LATIN
Solis
Lunae
Martis
Mercurii
Jovis
Veneris
Saturni

DIA = Order in the Week
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday



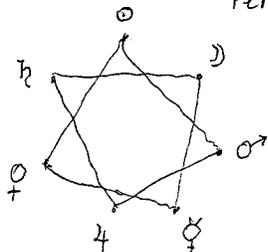
Peri = Order in Sky (sidereal Period)

- ♃ = 30d
- ♄ = 88d
- ♀ = 225
- ♁ = 365
- ♁ = 687
- ♁ = 4333
- ♁ DIA
- 10259 SKY
- ORDER

(♁ ↔ ♁)

TU Dual

Peri. Need Order



THE WEEK AS
CELEBRATION OF THE 7 PLANETS

The week connects the earth's rotation period of 24 hours with its intrinsic period of 84 minutes.

120 Intrinsic = 7 rotations

Monastic Day

Matins
 Lauds
 Prime or First Hour
 Terce or Third Hour
 Sext or Sixth Hour
 None or Ninth hour \leftarrow 9 periods goes with 18 beats of 1^h 20^m duration
 Vespers
 Compline

Centrifugal Force Gravitation Pull

$$\frac{m v^2}{R} \leq \frac{GMm}{R^2} \quad \text{Equilibrium}$$

$$\text{If } v^2 > \frac{GM}{R} \quad \text{unstable}$$

$$\text{but } v = \frac{2\pi R}{\tau_s} = \sqrt{\frac{GM}{R}}$$

$$\therefore \text{ if } \tau < \tau_s, v > \sqrt{\frac{GM}{R}}$$

$$\tau_s = 2\pi \sqrt{\frac{R^3}{GM_\oplus}}$$

$$\tau_s = \frac{2\pi}{\sqrt{G\rho_\oplus}}$$

Sun 0
 M 17 1/2
 T 34 1/2
 W 51 1/2
 Th 68 1/2
 F 85 1/2
 S 102 1/2
 Sun 120

If we launch a surface satellite with a period of 84^m at, say here, 12:00 noon, Sunday then at Noon tomorrow, the satellite will have completed 1 1/2 orbits. And at noon on the day after tomorrow, 3 1/2 orbits ... finally on Saturday, noon 10 1/2 orbits and on Sunday noon 120 orbits

§ = 84 minute unit

So the next time the satellite will be here at its launch time will be in 7 days

The day = 17 1/2 §
 The week = 120 §
 The Year = 6262 §

What is the Schuster Period of the Moon?

The week also derives from $\frac{GM}{R}$ in particular $\frac{GM}{R}$ and $C.S.$

DAYS OF THE WEEK

ENGLISH

SUNDAY
 MONDAY
 TUESDAY
 WEDNESDAY
 THURSDAY
 FRIDAY
 SATURDAY

SAXON

SUN'S DAY
 MOON'S DAY
 TIW'S DAY
 WODEN'S DAY
 THOR'S DAY
 FRIGG'S DAY
 SETERNE'S DAY

GERMAN

SONNTAG
 MONTAG
 DIENSTAG
 MITWOCH
 DONNERSTAG
 FREITAG
 SAMSTAG

LATIN

DIES SOLIS
 DIES LUNAE
 DIES MARTIS
 DIES MERCURII
 DIES JOVIS
 DIES VENERIS
 DIES SATURNI

FRENCH

DIMANCHE
 LUNDI
 MARDI
 MERCREDI
 JEUDI
 VENDREDI
 SAMEDI

SPANISH

DOMINGO
 LUNES
 MARTES
 MIERCOLES
 JUEVES
 VIERNES
 SABADO

RUSSIAN

ВОСКРЕСЕНЬЕ
 ПОНЕДЕЛЬНИК
 ВТОРНИК
 СРЕДА
 ЧЕТВЕРГ
 ПЯТНИЦА
 СУББОТА

GREEK

ΚΥΡΙΑΚΗ
 ΔΕΥΤΕΡΑ
 ΤΡΙΤΗ
 ΤΕΤΑΡΤΗ
 ΠΕΜΠΤΗ
 ΠΑΡΑΣΚΕΥΗ
 ΣΑΒΒΑΤΟΜ

SWEDISH

SÖNDAG
 MÄNDAG
 TISDAG
 ONSDAG
 TORSDAG
 FREDAG
 LÖRDAG

ITALIAN

DOMINICA
 LUNEDI
 MARTEDI
 MERCOLEDI
 GIOVEDI
 VENERDI
 SABATO

JAPANESE

NICHIYOUBI
 GETSUYOUBI
 KAYOUBI
 SUIYOUBI
 MOKUYOUBI
 KINYOUBI
 DOYOUBI

日 月
 火 水
 木 金
 土

POLISH

NIEDZIELA
 PONIEDZIALEK
 WTOREK
 SRODA
 CZWARTEK
 PIATEK
 SOBOTA

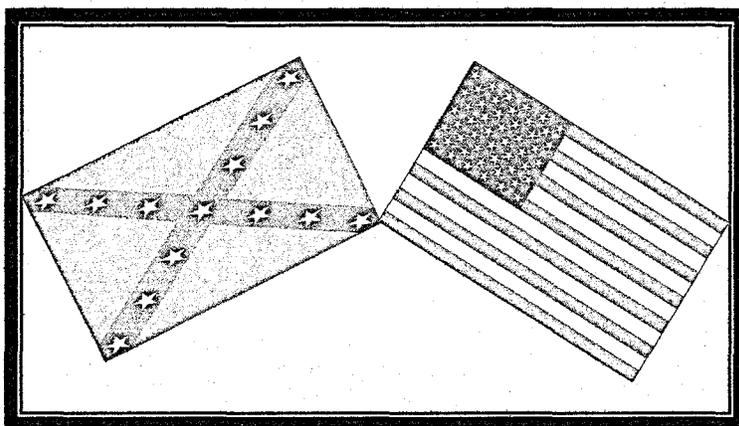
HEBREW

REE SHOHN
 SHAYNEE
 SHLEESHEE
 REMVEEEE
 KHAMREESHEE
 SHEESHEE
 SHAH BAHT

DAY WEEK 2, W52

E PLURIBUS UNUM

THE FLAG OF UNION
AND
THE FLAG OF PLURALISM



See Confed 1, P5) 08a
93 - #5

\ J491

MORE ON THE CONFEDERATE FLAG

The recent demonstrations in Atlanta and other southern cities against the incorporation of the Confederate Battle Flag in the state flag disclose that there are still vestiges of the Civil War that remain unresolved. This is not surprising, since main stream historians have simplified the modern perspective of that war to the issue of slavery. However, that this was not a one issue war, nor at that time was slavery the principal issue, keeps alive the tensions and disagreements that center today on the symbols of the Confederacy.

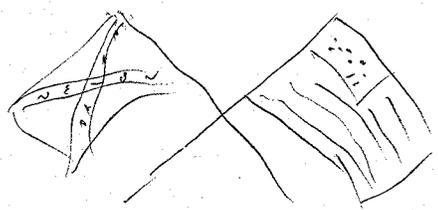
As with many Americans, I am a descendant of both those who fought with the Union and with the Confederacy. In my blood is the blood of New Englanders who fought with the Meade and Grant and of Alabamans who fought with Johnson and Lee. I honor both sides and know that in reconciliation both contributed to a higher vision of what this country is about.

The motto on the Great Seal of the United States is "E Pluribus Unum": Pluralism and Unity. The deeper issue of the war was how to make possible both pluralism and unity. And this is an issue that is unresolved today. The South felt pluralism was impossible within the Union. The North felt that pluralism must be restrained for the sake of Union. Today, the issue still focuses on cultural pluralism versus economic unity. Everywhere in the world people want the benefits of economic union, but fear the loss of cultural heritages that appear to be the price of these benefits. Are culture and economics examples of Niel Bohr's complementarity? At one level contradictory, at some higher dimensionality reconcilable? Any higher dimensionality has yet to be discovered.

Those who want the state flag changed insist on a particular interpretation of the issues of the Civil War and of the Confederate symbols and demand that all others accept this interpretation. These same people want, rightly, to preserve their cultural heritage. But pluralism requires that others be allowed their interpretations. After all cultural differences are basically different interpretations and emphases of human experience.

The African Americans who object to the symbols of the Confederacy are in agreement in interpretation with the skinheads and members of the Klan. All look on the Confederate flag as a symbol of racism. Skinheads and the Klan parade the Confederate flag along side the Nazi swastika. Their seizure of these symbols and juxtaposing them does great violence to historic truth. But in a pluralistic society, the Klan has a right to its interpretations too. It is only when we demand that our

particular interpretation be universal that we violate "E Pluribus Unum". The Klan has taken the Latin Cross, a Christian symbol, and by burning it on peoples front lawns given it a totally unchristian meaning. Are we to demand that crosses be removed from all churches because the Klan has appropriated the cross? Today we fight over possession of symbols. They cannot be owned nor can a symbol (in Jung's sense) be tied to one meaning. An essence of cultural pluralism is let people have the right to their interpretation of symbols. The swastika still belongs to the American Indian. The Nazis own it only if you give it to them.



PLURALISM UNITY
E PLURIBUS UNUM
MY INTERPRETATION

Courts cannot rule on ~~whether~~ a symbol must be interpreted.

IF the 1st amendment is about ^{freedom of} speech
The 14th amendment is about ^{freedom of} thought

NEXT

MELTING POT vs PLURALISM

JEWISH NOTE:
The diaspora and the Melting Pot are directly opposed

Symbols cannot be ^{legislated} possessed - They may mean quite different things to different persons.

The Confederate Soldier was fighting for his home for what was local (vs Global) rather than imperial (i.e. universal)

Emancipation saved the war for the North
The character of R. E. Lee saved the war for the South

for freedom (of self) states and above all for pluralism and the right to be left alone

The appropriation of the Confederate flag by racist groups is as big a travesty of history as Disney's proposals to have a theme park to redo the Civil War. Each Age views the events of the past with its own lights - but the resulting distortions are parallel to Santana's warning: "Those who are ignorant of history are doomed to repeat it." Those who distort it are worse than ignorant of it.

History is what I write it to be

- Stalin

History is what we design it to be

- Disney

The notion of red + white

e pluribus unum

many → one

the motive of the cancer cell

ex uno plurimus

one → many

the agenda of the stem cell

Every civil war is about pluralism

The deeper issue is not having thought police

telling us how to interpret a symbol.

^{white suprem} Rednecks, Heritage-Honor types, ^{slavery} NAACP

are all playing the role of thought police.

ON ENTITATION

Ralph Gerard Quote

This morning all is covered with frost. On the porch is a clean plane of smooth even frost. But from this 'ground' of frost emerges a 'figure' of glistening particles. These figure highlights form patterns, like the constellations formed by the stars in the night sky. Like the constellations, these patterns in the frost have only an apparent reality, for when I move slightly to a new position, the patterns disappear and new ones emerge. These patterns force themselves on us, not because of any intrinsic significance, but because our eye is caught by their brightness. This is a case in which the 'world' which emerges from the sunyata of the frost is filtered by our eye, selected by our mind.

A new world comes from moving your head, from metanoia

If it is true that our minds select a particular world [pattern] from a plethora of possible worlds [patterns], then does our particular selection have any special cosmic significance? Rather than worry about the answer to that question, it seems more important to explore the set of patterns available to us. Then from that set we may begin to see something of the nature of the cosmos itself. So the question becomes, how do we find the members of the set available to us.

All is ground until experience, an interaction with the sunyata [frost plane] generates (or selects) a figure.^{or} Using a sonic metaphor, all is noise until experience generates (or selects) a signal. What then, leads to the emergence of figure? The sources of figure seem be sensory contrast (as the glisten patterns in the frost), relative motion, and recognition. (~ something familiar)
∴ repetitive

In the case of the patterns in the sky, at first significance was attributed to the different constellations. But when it was realized that the pattern depended on the position of the observer, these significances disappeared. Then it was realized that some patterns might have some significance after all. Close groupings of stars, e.g. the Pleiades, might indicate a entity more 'real' than just a two-dimensional high density area in the sky. The problem of the reality of clusters was only settled when an additional observational parameter also displayed clustering. (Usually spectral type or line of sight velocity.) Thus significance, and hence entification, came to be built on the number of sensory or observational parameters that were detectable. We must add then to the three above mentioned sources of figure, the enhancement of figure by multi-parameter correlation.

There is a sense that a creative person
has to have at least two frames of
reference. If you are completely devoid
of this, your chances of humor are slim.

Kenneth Craik
(Prof at Berkeley)

Right Left Forward Back
East West North South
Exterior
Past + Future

long, lat, elev, time

bow
port starboard
stern

Now

We like 4-fold frames

ENTITATION IS VASTLY MORE IMPORTANT
THAN QUANTITATION

RALPH GERARD

p 219-220

Hierarchical Structures

MOTION TIME AND DENSITY TIME

Given a velocity and a distance, a travel time is derived by

$$\text{travel time} = \text{distance}/\text{velocity}$$

If a universal rate is postulated, such as the velocity of light, c, then a general concept of time is derived as

$$\text{light time} = \text{distance}/c$$

These travel or motion times support a "linear" concept of time.

[Some motion times: light travel from sun = 499.012 seconds;

light travel time of the earth's orbit = 3135.383sec = 52 minutes]

check: $dP/dt = 2\pi$

A second concept of time derives from the dimensional analysis of a function of density

$$\text{time} = k/\sqrt{\text{density}}$$

This kind of time supports a "cyclical" concept of time.

For the earth, for example, density time is approximately 84 minutes, while motion time, $2\pi R/c$ is 0.137 seconds (~ frequency of 7.3 hertz).

These two times become numerically equal for bodies on the Schwarzschild Limit.

$$GM/c^2R = 1$$

For bodies with $GM/c^2R < 1$, which includes everything but black holes, density time exceeds motion time.

The formulae relating motion and density time derived from physical theory are as follows:

From the definition of density time

$$(1) \quad \tau = \sqrt{\frac{4\pi^2 R^3}{GM}}$$

And the definition of motion time

$$(2) \quad t = \frac{2\pi R}{c}$$

We derive

$$(3) \quad \tau = \sqrt{\frac{c^2 R}{GM}} t \quad ; \quad \tau = \frac{c}{R} \sqrt{\frac{3}{4\pi G\rho}} t$$

As stated above, when $GM = c^2R$, the body is on the Schwarzschild Limit and $\tau = t$. Or possibly the Schwarzschild Limit is the result of a resonance condition resulting from $\tau = t$. If the Schwarzschild Limit is the fundamental, we question how or whether higher harmonics are manifested.

GRABIA

Local and Global Times

Motion, $\frac{R}{c}$, time seems global

Another basic question is, how is density time properly interpreted? It is not age, it is not related to motion or travel time. It is cyclical, it manifests itself physically in satellite orbital times and dynamical rotational limits. Is it a synchronization signal? A temporal pulse that preserves coherence of the body or system? Is it possibly a universal zeitgeber?

Is it the minimum time
for global "synchronization"?

DIMENSIONAL TIMES

On the basis of dimensional considerations there are four species of time:

t Motion or Radar time

$$t = 2\pi \frac{R}{c} \quad t = f(R) \quad t = \frac{h}{E}$$

τ Density or Kepler time

$$\tau = \frac{2\pi R^{\frac{3}{2}}}{\sqrt{GM}} = \sqrt{\frac{3\pi}{G\rho}} \quad \tau = f(\rho)$$

Time and Energy are complementary
? [{ h'v } ?

T Energy time

$$T = \frac{h}{Mc^2} \quad T = f(M)$$

calculate each for E

\mathcal{K} Gravitational time

also $\frac{GM}{c^2} = \mathcal{T}$

$$\mathcal{K} = \frac{hR}{GM^2} \quad \mathcal{K} = f\left(\frac{R}{M^2}\right) = f(R, M)$$

Complementary to each of these four times are four energies given by (action/time) in each case. (h has the dimensions [ML²/T] of action)

Motion energy

$$E_m = \frac{hc}{2\pi R} \quad \sim h\nu$$

Is there an RM time?

Density energy

$$E_\rho = \frac{h\sqrt{GM}}{2\pi R^{\frac{3}{2}}} = \sqrt{\frac{h^2 G \rho}{3\pi}}$$

Normalizing with E energy

Total energy

$$E_t = Mc^2$$

Gravitational energy

$$E_g = \frac{GM^2}{R}$$

Electrical times?

Additional times $\mathcal{E} = \frac{h^3}{m_e e^2} = [T]$

An electric time

$$\Upsilon = \sqrt{\frac{MR^3}{e^2}}$$

$$\Upsilon = \sqrt{\frac{hc}{e^2}} \quad T = \frac{T}{\sqrt{\alpha}}; \quad \Upsilon = \sqrt{\frac{M^2 G \Upsilon^2}{e^2}} = \frac{M \sqrt{G}}{e}$$

$$\Upsilon = \frac{M}{\sqrt{\rho}} e$$

On the Schwarzschild Limit:

The gravitational radius = the metric radius

The motion time = the density time

The gravitational energy = the total energy

electron volts²,

$$T = \frac{\sqrt{ML^3}}{e} \checkmark \rightarrow \approx$$

$e \leftarrow$ charge on electron

$$e = \sqrt{GM}$$

Electric Times

$$\frac{\hbar^3}{Me^4} = \frac{t}{\alpha^2}$$

$$T_{e_i} = \frac{\sqrt{ML^3}}{e}$$

$$\frac{\hbar c}{e^2} = \frac{1}{\alpha} \quad \frac{R\hbar}{e^2} = \frac{R}{\alpha^2 c} = \frac{t}{\alpha^2}$$

$$e^2 = \hbar \alpha c$$

$$\frac{1}{c} = \frac{\hbar \alpha}{e^2}$$

$$t = \frac{\hbar \alpha}{e^2} R$$

$$R \frac{\hbar}{e^2} = \frac{t}{\alpha}$$

TEMPORAL DICHOTOMIES

PHYSICAL TIMES

- | | |
|----------------|-----------------------|
| MOTION | DENSITY |
| ARISTOTELEAN | KEPLERIAN |
| | 2nd $T \propto R^2$ |
| | 3rd $T^2 \propto R^3$ |
| LIGHT TIME | GRAVITATIONAL TIME |
| FAST | SLOW |
| INFORMATION | MATTER/ENERGY |
| COMMUNICATION | TRANSPORTATION |
| SPECTRAL LINES | G-ATOMIC |
| LEPTON TIME | BARYON TIME |

BIOLOGICAL TIMES

- | | |
|-------------------|-----------------|
| NEURON TIMES | MUSCULAR TIMES |
| CIRCADIAN RHYTHMS | MONTHLY RHYTHMS |
| SUBJECTIVE TIME | OBJECTIVE TIME |

CULTURAL TIMES

- | | |
|--------------|------------|
| CHRONOS | KAIROS |
| SECULAR | LITURGICAL |
| SOLAR | LUNAR |
| IMPERFECTIVE | PERFECTIVE |

CONCEPTUAL TIMES

- | | |
|----------------------|------------|
| LINEAR | CYCLICAL |
| EVOLUTIONARY | REPETITIVE |
| INOVATIVE <i>Sp?</i> | ITERATIVE |
| HISTORICAL | ARCHETYPAL |
| TEMPORAL | PRIMORDEAL |
| FREQUENCY | PERIOD |
| CONTINUOUS | DISCRETE |
| OPEN | CLOSED |
| SEQUENTIAL | |
| PITCH | METER |
| | ETERNITY |

Creativity must have two frames of reference.--Craik

Information must have a faster rate than matter.

Is Kairos associated with density time? Both are cyclical.
 Is Chronos associated with motion time? Both are linear.

Is there a charge density time?

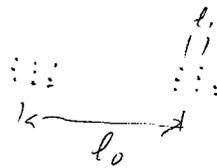
$$e = \sqrt{GM}$$

$$\text{then } e^2 = \frac{4\pi^2 R^3}{e\sqrt{G}}$$

Information Time (Scanning Time)

$$t = t_0 [(m-1)\gamma + 1]$$

$$\gamma = \frac{t_0}{t_i}$$



$m = \text{number of bits in cluster}$
 $n = \text{number of clusters}$

SYNCHRONIZATION OF THE EARTH'S ROTATIONAL AND GRAVITATIONAL PERIODS

cf. 1991 #88
1994 #7
#15
#54

1993 #54

Four basic periods are associated with the earth: The revolution period of one year, the lunation period of one month, the rotation period of one day, and the gravitational (or Schuster) period of 84 minutes (plus a few seconds). Since these various periods have no simple integral multiples, there is the problem of commensuration, or finding the simplest ratios of their values. For example, since ancient times solutions to the problem of when the full moon will occur on the same calendric date have been sought. One answer was the Metonic Cycle of 235 lunations = 19 years. (235 synodical months = 6939.6882 days, while 19 years = 6939.6018 days, the difference being 2h 4m 24s) In the western hemisphere, the Mayans found that 81 moons = 2392 days before the moon appeared in the sky at the same phase at the same time.

The same problem arises in determining the synchronization of the mean solar day with the earth's G-period. To a first approximation the G-period of the earth is 84 minutes. This value synchronizes exactly with the 24 hour rotation period of the earth every seven days. That is $120 \times 84 \text{ minutes} = 7 \times 24 \times 60 \text{ minutes} = 10080 \text{ minutes}$. Is it possible that this first approximation to G-period solar day synchronization could be the basis of the week? The question arising here is in what manner did ancient humans sense the G-period.

But the value of the G-period is not exactly 84 minutes. Using the present most probable value for the earth's density of $5.517 \pm 0.004 \text{ gm/cm}^3$, the G-period is about 84 minutes and 19.61 ± 1.83 seconds. This means that there is not precise synchronization every seven days, but there is an error of approximately $120 \times 20 = 2400$ seconds (40 minutes) each week. This value is approximately half a G-period, so we would expect a better approximation to be a fortnight. Actually a minimum synchronization error of 33.4 seconds occurs in 13 days. But this error is accumulative so an exact synchronization, if any, will occur only at some much longer period.

The Mayans used a week of 13 days

To find synchronization periods it is necessary to solve the Diophantine equation

$$N_1 \times \text{CYCLE}_1 = N_2 \times \text{CYCLE}_2$$

where N_1 and N_2 are integers. For the choice of cycles, G-period and day, we get the following table:

Algiers

Is the day lengthening or shortening?

It was 18 hr. 900 million years ago

The mean rotation time of the earth in an ephemeris day is

$$1\ 299\ 548.\text{''}204\ 204\text{''} - 0.\text{''}0246\ T \quad \text{Allen p 19}$$

when T is in Julian Centuries —

⇒ Thus the period is getting shorter, centuries ago

the rotation ^{time} ~~rate~~ was longer

$$\text{Now the Schuster period is } \approx 84^m 20^s = 5060^s$$

$$\text{and if we take 1 day as } 86400^s$$

$$\text{then } \frac{D}{S} = 17.075099$$

$$\text{but } \frac{86400}{5040} = 17\frac{1}{2} \text{ exactly } \Rightarrow 7 \text{ day week}$$

What would D have to be for 5060 → 17½

$$86742.857 \text{ sec}$$

i.e. the day would have to be

343 sec longer to give 17½

But a longer day in the Past ⇒ closer to 17½

$$t_E - t_u = 24.35 + 72.32 T + 29.95 T^2$$

If t_E ground then ⇒ t_u is

i.e. absolute time

i.e. the day is getting shorter

But I thought the day was increasing → 1 year

Which

We have a 13 day cycle

and a 7 day cycle

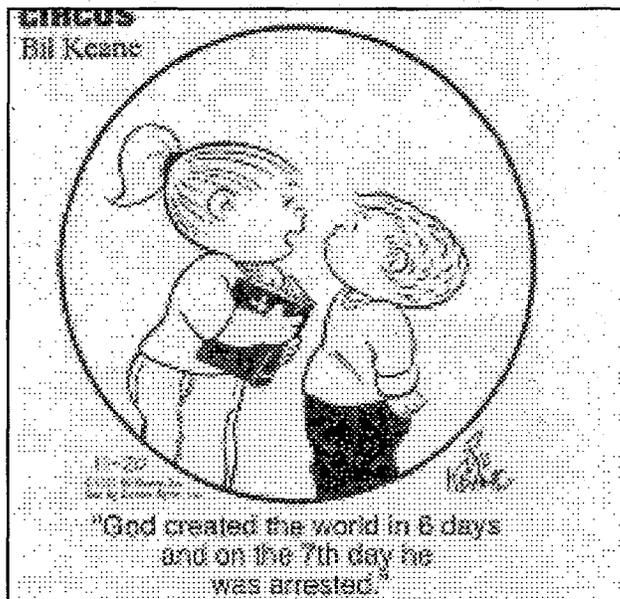
7 · 13 = in which every 91 days (i.e. each season)

$$4 \times 91 = 364 \text{ days } \approx 1 \text{ year}$$

DENSITY	PERIOD	No, G-PERIOD	DAYS	ERROR
5.517	84m+19.609s	222	13	+33.3s
5.513	84m+21.445s	973	57	-14.3s
5.521	84m+17.776s	205	12	+44.1s
5.51733	84m+19.3495	222	13	+0.009s

5,5148

The density value of 5.51733, differing very slightly from the most probable value, gives an almost exact synchronization of the day and G-period every 13 days. With this value the maximum error in the 13 day cycle occurs on the seventh day. So, the new twist would be that synchronization does not occur on the seventh day as it would if the G-period were exactly 84 minutes, but that the times get most out of synch on the seventh day. God in creating the world realized that the synch error was increasing every day, and at the end of the sixth day He felt things were getting out of hand, so decided to take the next day off. Things began to improve on the eighth day, but we aren't sure what God did in the second week.



CHRISTIANITY THE RELIGION YET TO BE

Both Buddha and Muhammed lived long enough to organize and structure their teachings. Jesus was cut off before his prime leaving his mission incomplete. His personal reconciliation to this truncation, in the evening before his crucifixion in the Garden of Gesthemene, did not transfer to his disciples, who were at a loss with the void which they inherited. Nothing was written for several decades, because of the bewilderment effected by his execution. Finally, a way to salvage and justify what had happened began to emerge. This was a very real resurrection of what had died with Jesus on the cross.

Christianity as a religion began to be forged from the teachings and life story of Jesus as reported by witnesses, from the insights of St. Paul and in time by the incorporation of Hebraic traditions with supplements from Egypt, Greece, and the East. This resulted in a hodge-podge of conflicting and competing inputs necessitating ~~in~~ the creation of an orthodoxy (and therefore of heresies). Whereas a potent seed had been planted by the life and teaching of Jesus, one capable of development into a tree of great wisdom, the competitors (also known as the Church Fathers) chose to strip it of all emerging branches and reduce it to a single pole. To hold such spiritual vitality into such limited confines necessitated, persecutions, crusades, wars, and inquisitions. The resulting pole lacked the theological assurances inherent in other religions and has consequently in modern times been dealt a death blow by capitalism, science and secularism. Nonetheless, the vitality of the original seed survives and when freed from the custody of its jealous possessors (who never understood it) will some day bring forth the fruit of its original promise.

ALGIERS
BANGKOK

This was written long
before I heard of Spang
read Emerson, or Kierkegaard

SOME NOTES ON THE MASCULINE CRISIS

- The fact is there has been an end to gender specialization. With power tools and computers, women can do anything men can do and, in general, just as well. Women have crossed the traditional gender specialization line and occupied most of the territory that formerly had been staked out by and for men, taking every sort of job, entering every profession, and even adopting men's traditional clothing. Men, on their part, have been reluctant to cross the line into former women's exclusive territory, and as a consequence we have women gaining increasing independence and men remaining relatively dependent.
Women are now concerned that doing the same jobs as men, and as well, they should have equal pay. This is a just demand and the reticence of men to comply lies in part that with equal pay the last wall of gender specialization will come down.
- The end of gender specialization does not mean that all psychological and biological differences are erasable. Some things will always be done better by women and some by men. If women, in general, have stronger right brain functions than men, this will remain. But men to become less dependent and achieve balance in the tide of gender despecialization must develop their weaker functions: feeling, relating, nurturing.
- The end of gender specialization is one thing, but the continuing need for the masculine function is another. However, this function need not be the exclusive province of men, anymore than the feminine function should be the exclusive domain of women.
- This brings us to the crisis. What is the masculine function and why have men lost touch with it.
Let us use the metaphor of a ship to represent the human race. The masculine function is to set the course for the ship, to navigate, and to pilot the ship. The feminine function is to supply the ship, assure its safety, and take care of the health and welfare of all the crew. (There are no passengers, only crew). The masculine function today is not being met. Men still pilot the ship, this is a very visible activity and one that appeals to the boy, or least mature side of men. But men have lost touch with how to navigate and no one is doing that function. Nor are they able to set and chart a course. They have become so involved with the control aspects of piloting that they do not know where the ship is to go or how to take it there. The ship drifts and both genders vie for the position of pilot

while the post of navigator lies vacant. And no one bothers to get in touch with the ship owner to find where the ship is to go.

- The position of men in the world is like that of the United States or any other advanced country. The history of empire illustrates this. Empires are jealous of their role and try to keep it exclusively for the mother country. But colonials in time learn to do everything the mother country does and competition arises. (cf. England and the American Colonies in the 18th century). Now Singapore, Hongkong, to say nothing of Japan and Taiwan all do what Americans have been doing and do it as well or better. So what is left for America? To have a role, America must find a new one. And also realize that whatever that role is, in time it will pass to Singapore, Hongkong, and Somalia. Men must find a new role, being pilot is no longer their exclusive province. There is need for navigators and men should get back to that skill, but that is not the answer. Men must find what the more advanced masculine functions are, even if there are no precedents. This is the crisis. The world needs a new and higher masculine, not gender oriented, and this is what the displaced male should be working on.
- The church has completely lost its masculine function. It is doing a fair job with its feminine function of nurturing and caring, but its guidance is gone. There is no Moses, no Joshua, no Jesus, only story tellers repeating stories about Moses, Joshua, and Jesus. And with the church so with the world.
- In summary, men today must do two things:
 - 1) Cross the gender ^{specialization} line and restore balance by acquiring skills in the traditionally feminine realms of nurturing, feeling, healing, and relating.
 - 2) Restore the lost masculine functions and develop the needed higher masculine functions.
- The statues of Lenin on a pedestal, once seen in former communist countries, whatever their political symbolism, vividly symbolize the basic masculine function: Pointing the Way.

There are two crises:

The men crisis : lost their role, their exclusiveness
and

The masculine crisis : The missing masculine in
the world order

If the sky god is masculine, he represents perpetual change
— and innovation

It is the masculine role to lead, be ahead.

But today there has been a failure of the masculine
There is anomie, no compass, no virtues

O n R e c o r d s

In the Tibetan Book of the Dead reference is made to five Dyanni Buddhas or Tathagatas. These are neither persons nor gods but represent processes having to do with creation, life and death. Necessary in the process of creation is a self-referential 'sealing' of the act. The first Buddha pours information into a form, the second Buddha enables the self-referencing of the form. The basic idea is that without self-referencing there is no existence. This seems strange on first inspection, but as we look more carefully at existence, we begin to perceive the validity of the idea.

In the book of Genesis, whenever God created something He then examined it and sealed it with "God saw it was good", an act of self-referencing. In the twentieth century we have come to see that without certain 'papers' that self-reference us, we are nothing. Birth certificates, social security numbers, green cards, etc. are essential to our having societal existence. It is a fact that records, or some other form of second self are essential to existence. When the great library at Alexandria was destroyed, the ancient world which it recorded ceased to exist.

During the period of heightened fear of nuclear war during the cold war, underground caverns were prepared in which banks, investment firms, insurance companies, etc could store their records. If a nuclear war destroyed the records, even if something was left of life and property, the social order would be dead. Who owned what, who owed what, etc if destroyed would wipe out the linkages that hold a western society together.

When we destroy the records we destroy existence. What is clear to us in a societal sense is held by the Book of the Dead to be true in a basic ontological sense. Without both the form and its self-referential echo (e.g. a record) being intact, an entity does not exist.

Any society, culture, group, individual can be destroyed by destroying its records. This is because all entities are composed of monads (or nodes) and links. If the links are destroyed, the entity is destroyed, and unless the monads find new linkages they, being all alike, cease to exist by Eddington's ontological principle: "Uniform sameness is indistinguishable from non existence."

Re Self-Reference:

The Pope says he is infallible

- a self-referential statement
making him infallible.

The Jews say they are chosen

- a self-referential statement
making them chosen

Ontological Loops

THE EVOLUTION OF ENCOUNTERS

There are several courses for the co-evolution of two systems which encounter each other after prior separate and independent development. (Here the term system is used to mean a culture, a society, or an individual.) The path followed after encounter depends primarily on the relative degree of development of the encountering systems prior to their encounter. Equal systems follow a different course than do slightly unequal systems and a quite different course from radically unequal systems. While the ratio of the degrees of development of the two systems is the most significant parameter in the path of co-evolution, there are other parameters, such as world view, self image, range of experience, and system strength that also affect the outcome.

The initial step in any encounter is learning of the existence of the other. In most instances knowledge of the existence of the other comes mutually but it is also possible that one system learns of the existence of the other without the second systems knowledge of the first. In the latter case it is most probable that the two systems are very unequal in development. Columbus landing in the Bahamas gave knowledge of the existence of the native American population to the Europeans and simultaneously gave knowledge of the existence of the Europeans to the native Americans, but after this initial mutual knowledge, the inequality in the relative developments selected the path of co-evolution.

While we usually associate degree of development with degree of strength, this is not always so. In the case of the barbarian invasions of the Roman Empire, strength was on the side of the barbarians and development on the side of the Romans. The outcome in this case was the triumph of the barbarians. In the case of the barbarian invasions of China, strength was on the side of the barbarians and development on the side of the Chinese. The outcome in this case was that within two generations the Mongols were asking the Chinese if the poetry they were writing was worthy of Chinese cultural recognition. The cultural development of the Chinese was and is so great that it overcomes all intrusions. We will probably see its ultimate triumph over both Marxism and Pepsi Cola Capitalism.

Following the initial knowledge of existence, is the stage of exploration. The more advance culture learning the most. It is a theorem of information exchange that the system possessing the most information will acquire the most information in any exchange. The rich in information get richer faster than do the poor in information. However, in the case of the Spanish exploration of the Americas, another factor replaced the Spanish information advantage. This was the Catholic world view: contempt for other religions and the dictum to convert. Instead of learning the wisdom of the Mayans, Aztecs, Incas there was a

systematic campaign to destroy and obliterate their heritage. Bishop Landa burned the Mayan codices. In all only four escaped to be clues for later scholars to try to reconstruct the cultural treasures obliterated by the more developed and stronger European system.

After discovery, in the case of the encounter of more equal systems, instead of the robbery and destruction which took place in the Americas, we have the development of trade. Asian peoples were not at the mercy of the stronger Europeans since they were comparably as advanced culturally. An era of free trade ensued to both sides advantage. But when further advantages were sought, trade was modified by force. Colonialism was born. Penetration of the weaker by the stronger took place with varying success, depending on the strength and degree of development of the weaker. Africa was easily subdued, India with difficulty, China weakened but not taken over, Japan completely repulsed the would be invader, but took the stance of the recluse.

Following on the era of trade, in the next stage the under developed culture emulates the colonial power and begins to develop at home what had formerly been imported. This results in the two systems moving from the symbiosis of trade to the competition of similarity. We often think of differences as being the cause of competition and rivalry, but it is not difference, but similarity that leads to rivalry. When the American colonies developed home industry and their own merchant marine, they no longer were dependent and came into competition with the mother country. The end of this particular colonialism in 1776 showed what inevitably would and did occur globally in the 20th century.

Whatever the advanced system has or does will in time inevitably be done by the developing system. Japan will make cars and chips, India will write software, North Korea will make a bomb. Trade inevitably leads to homogenization. As homogenization increases, systems pass through the stage of intense rivalry and competition, marked by wars and the employment of economic weapons such as tariffs and sanctions. The choice for the advanced system becomes reclusiveness or open trade leading to further homogenization and rivalry. This is the stage at which the world has arrived in the last decade of the 20th century. What about the future?

Without intensified technological research and development, the advanced system will in time be equalized with all others by ensuing homogenization. For homogenization is the economic operation of the second law of thermodynamics, everything moves to the same level. When this happens there is no need for trade, no energy will flow, just as no water flows when all the hills and valleys have been smoothed to the same level. Eddington has pointed out that uniform sameness is indistinguishable from non-existence. The second law's end point is therefore non-existence and homogenization will take us to that denouement.

Alternatives to the "heat death" predicated by the second law, are for the advanced country to make innovation its responsibility and product for export and trade. Whatever we do will be copied and made, and probably be done and made better, by the less developed country. There is only one ultimate business for America if it seeks to preserve its leadership and standard of living, that is the business of innovation. Industrial strength, military strength, economic strength, in the future will all depend on the pillar of innovation.

An alternative to the homogenization path is for the leader to move away from the pack. In this case the bell shaped distributions become bimodal with the disappearance of the middle. While we see homogenization increasing globally, we see a bimodal distribution developing internally. The rich are getting richer and fewer, the poor are getting poorer and more numerous, and the middle class is disappearing. Whenever in evolution there is counter-homogenization the result is discretized levels, the appearance of gaps. Paleontologists look for the "missing link" between man and lower anthropoids. There is no missing link, the middle in the bimodal disappeared.

But evolution, in its wisdom, seems to avoid homogenization. There is the basic process of departure and return. The global village is not a dead-end point. Systems will, through some intervention, become isolated from each other and develop independently, then come together again to repeat the cycle of discovery, exploration, trade, rivalry, and homogenization. We are more familiar with the forces and processes that bring us together, the forces of return, than with the forces of departure. Today we see the economic forces of unification and interdependence running counter to the cultural forces of separation and independence. Homogenization opposed by pluralism. It may be that a system is not properly modeled by one attribute, say economics. It is necessary to model at least two attributes, economics and culture. These are two intertwining dragons or serpents that create the dynamic of existence. When one is homogenizing, the other is heterogenizing. Only when both are homogenizing, when the melting pot melts everything, does the end come.

*Irish / Celtic
Celt / Roman*

DREAM02.W52

DISK:

March 5, 1994

From time to time a dream seems important enough to record. Perhaps they are all important, but until we have better decoding, only those that hit our conscious selves with some insight toward interpretation seem worth recording. The following is such a dream, dreamed morning of above date.

Dad, (vague others), and I are studying a map. It seems largely to be centered in Mexico. There is a city we are on our way to visit which is in a valley surrounded on west and east by high mountain ranges which converge in the south. The only way in is from the north. The city of our destination is some holy place, like Lhasa or Shambala. We are then in a car, Dad is driving, I am sitting next to him and there are one or two others in the back seat. Suddenly it seems as though even from the north our road is encountering unexpected high mountains and steep gorges. The road is narrow, one lane, and winds along the edge of a cliff precipitous above and below. Dad does not have his hands on the steering wheel and it seems as though the car is following the ruts in the road as though it were on rails. I feel uncomfortable about this but Dad is not one to tell what to do. We round a curve and suddenly ahead of us is a huge boulder in the road which fell in a recent rock slide. The road itself seems to have fallen partly away into the gorge on the right. Dad grabs the wheel and tries to steer between the rock and the cliff, but it is too narrow a space and the rock is forced to the right pausing on the edge. It seems that we might make it, but then the rock goes over the edge and carries part of the road with it and the car slips. I then realize that we cannot get back on the road and as we continue to slip I look down into the gorge a thousand feet below. We begin to fall, and I say "This is it". And I wake up.

I interpret the car as American capitalism, particularly the stock market, driven to reach some Valhalla, which it is doomed never to get to. It is overconfident and oblivious to the errors in its roadmap and to the perils posed by a natural order which it disdains. No need to steer, just continue in the ruts, business as usual. It encounters a road block, where it should stop and clear a way, but continues on confident that business as usual will see it through. Then there is a collapse and the car plunges into the abyss, taking all with it.

Stock Market Data:

*of collapse of Mexican Economy
- Pers + Market
Dec 1954*

FOUR ONTOLOGICAL LEVELS

Monism

The first view of the world is that there is but one reality. It is the reality supplied to all of us by our sense data and which is sealed by a general consensus. The world may be a mystery, (ref 93-#40), which we explore with questions and hypotheses, however, there is but one truth, which it is our task is to ferret out from all the appearances and illusions.

Fixed Facets

The second view is that the world of our consensus is but a single facet of a much richer and more complex World. Other facets of this multi-faceted Cosmos may not be available to us, (Kant's Noumena), but if they are available, it is only through alternative epistemologies. That is, we select or elect a particular facet of the World to be our world through our epistemology. While the epistemology of science appears to be quite successful in disclosing a particular facet of the World, it must avoid the claim that this facet is the only one. A World consisting of many facets, all of which are real (or true), was called a congeries in ref 93-#40. In a congeries the number of facets is fixed and it is not possible for an observer to be in but one facet at one time.

Fluid Facets

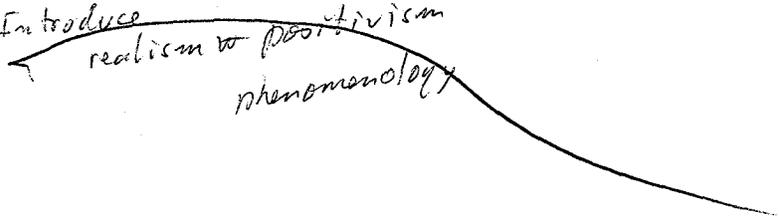
Whereas a congeries may be described as having a fixed number of facets, there is a second type of faceted World, in which the facets have fluid boundaries and permit ready travel between them. At this point it is seen that the nature of any World described is inextricably interlaced with the nature of the "observer". It is impossible to talk objectively about worlds. When we speak of the epistemological-ontological coupling, we must recognize that the nature of the observer is an inherent part of any and every epistemology.

Amorphism

While monistic and faceted Worlds are pre-shaped, fourth level worlds are like putty, not pre-shaped, but pliable and subject to shaping. We shall call such worlds amorphous. An example, is the Sunyata molded by the Dyani Buddha Vairachona. One does not explore such a world, one creates it. It is likely that in all levels, each world, each facet of a World, there is partial amorphousness. The problem is what is fixed and what is amorphous.

God grant me the serenity to accept things I cannot change, the courage to change things I can, and the wisdom to know the difference. -- Serenity Prayer (Paul Tillich ?)

Introduce
realism to positivism
phenomenology



A MORPHOLOGY OF RELIGIONS

RELIGION	EMPHASIS	TEACHING	COMMUNITY	SOURCE	THEOLOGY	AFTERLIFE	TIME
HINDUISM	DESIRE				PANTHEIST	REINCARN	CYCLICAL
BUDDHISM	SUFFERING	DHARMA	SANGYA	BUDDHA	ATHEISTIC	REINCARN	CYCLICAL
TAOISM	ENERGY	TAO TE CHING					
CONFUCIAN	ETHICS	ANALLECTS					
JAINISM	NON-VIOLENCE LIFE						
ZORASTER	LIGHTDARK						
JUDAISM	JUSTICE	SCRIPTURE	ISRAEL	JAHWEH	MONOTHEIS		LINEAR
CHRISTIAN	FORGIVNES	GOSPELS	CHURCH	CHRIST	TRINITY	HEAVNHELL	LINEAR
ISLAM	EQUALITY	KORAN	ISLAM	ALLAH	MONOTHEIS	JUDGEMDAY	LINEAR
SUFFISM	SEPRATION			MYSTICISM			
SECULRISM	NOW					NONE	LINEAR
SCIENCE	METHOD	BODY, FACT	SCI SOC	NATURE	1 LEVEL	? OPEN	LINEAR
AMRINDIAN	NATURE						
PAGANISM	NATURE						

The Architectures of ^{FAITH}Theology

Historically, the architecture of religious worship has assumed two geometric forms:

First, the linear, in which people face in one direction (usually East) toward a symbolic or iconic presence of a deity: a high altar, a statue, a sacred book. Examples include the basilicas and cathedrals of Europe, synagogues, and many of the temples of India.

Second, the circular, in which people are gathered around a fixed central focus, such as a fire, a sacrificial altar, or just an empty space. Examples include the kiva of native Americans, the peristyle temples of ancient Greece, and quaker meeting houses.

Until quite recently the Christian tradition has favored the basilica form in one of its several modifications. This form symbolizes the theology of spiritual growth. The interior of the church is divided into a succession of spaces which mark a path to the high altar, the Holy of Holies, the abode of the deity. There is a narthex, a transition space from the exterior secular space to the interior sacred space. In many churches one encounters a baptismal font near the entrance which symbolizes both the entrance to the nave and the beginning of an individual's spiritual path. The nave itself is usually a single large space, but segmented by a series of pillars or bays symbolically marking stations along life's way.

The first major transition, within the church is between the nave and the chancel, frequently marked by steps and a rood screen, the gate of death to the world. The successive elevations of nave, chancel, and sanctuary symbolize climbing a holy mountain, a universal symbol of the spiritual path that leads to the deity who dwells on the summit. Passing through the rood screen, climbing the first stairs, entering the chancel one is aware of entering a different and more sacred space. In Anglican churches, the customary choir arrangement in the chancel is antiphonal. This has traditional significance, symbolizing the dialogue between the congregation and God.

Next, elevated another step and separated from the chancel by a rail, is the sanctuary. This has traditionally been a reserve for those celebrating the Eucharist. Within this space is the high altar, the symbolic location of God Transcendent.

In recent years, the circular church form has become more common. This form emphasizes, less the idea of individual spiritual path and more the importance of Christian community. In the center is the Eucharistic table, around which in all quarters are the seats for the congregation. There is no preferred direction and no differences in the interior space. There is the table and the congregation, no barriers between, minimizing the role of the priesthood and supporting the doctrine that all are equal before God. This is not God Transcendent above and beyond, but is God Immanent, Immanuel, God with and within us. There are some, e.g. Joseph Campbell, who feel that this form inculcates a feeling of self sufficiency and leads to the eventual exclusion of God altogether. There is no question but that the two forms reflect, if not two distinct theologies, at least a very significant difference of emphasis.

With the placing of a Eucharistic table at the crossing in churches with transepts, a blend of the two modes was effected. The table at the crossing simulated a quasi-circular format and a high altar at the terminus of the apse preserved the linear format. Perhaps the church of the future, in order to meet both the needs of forging community, and enhancing spiritual development, should incorporate both the circular and linear formats. The design should have flexibility, like a stage, allowing one or the other mode to be used as befits the occasion: small numbers gathered around the eucharistic table, sanctifying the host and partaking of God Immanent; or the entire congregation focused on the Presence beyond the Holy of Hollies worshiping God Transcendent.

These forms are not only symbolic, but affect the attitudes and self image of those in the church. In the circular form, there is a feeling of equality and community, and also feelings of maturity and self sufficiency. We have come of age, accountability is upon our shoulders. We are active participants in God's plan. In the linear form, on the other hand, there remains a feeling of dependence and need, we are not self sufficient, we are still sheep in need of the good shepherd. But the linear form possesses a dynamic, a sense of movement to a higher potential, to spiritual growth. It is made for processions with their power of movement from space to space to space. This in contrast to the static mood inherent in the circular form. But without the High Altar, the Holy of Hollies, there is no place for God.

The Architecture of Faith

I give Thee thanks, O Lord Creator, because I have delighted in thy handiwork and I have exulted in the works of thy hands. Behold! now, I have completed the work of my profession, having used as much of the ability as Thou hast given me: I have made manifest the glory of thy works, insofar as the narrows of my mind could grasp its infinity. If I have been allured into brashness by the wonderful beauty of thy works, or if I have loved my own glory among men, while advancing in work destined for thy glory, gently and mercifully pardon me; and finally, deign graciously to cause that these demonstrations may lead to thy glory and to the salvation of souls, and nowhere be an obstacle to that. Amen.

Johannes Kepler, Harmonice Mundi

1619

Hepler, W52

Gatiman



It is one of life's most perplexing paradoxes that liberation and loss come packaged together. Why is the euphoria of liberation offset with the sadness of loss. I guess it is because of our attachments, which as Siddhartha repeatedly proclaimed, cause us our suffering. But upon reflection the mix of sadness and joy lies in our indecision on which way to face, to the past or to the future. I would like to feel we are not released for falling, but for a greater height which we could never reach tied to our baggage. This is how I explain the Book of Job. The age old rabbinical question, "Why does God let bad things happen to good people?" If you want to assume their theology, then the answer is because it is the only way God has of removing the barriers to their further spiritual realization.

With all of the talk of a new age and a new world, it has not happened. Yet we all feel at some level that we are living in a world that is dying but pregnant with a world trying to be born. It is a difficult time. One can find no satisfaction in getting to sit at the captain's table on the Titanic. Nor is there any sense in preparing for disaster. When the change comes it will be totally different from anything that we would or could prepare for. But there will be an Ark. It is proper to study what should be put on that ark. And I feel that what goes on board should not be just the wisdom of the past, but some of those visions we still imagine. Humans can endure many things ^{as} long as there is hope. But we are sometimes in the state of no hope. Here I recall William ^{the Silent} of Orange who called on his countrymen to persist even though there was no hope (in liberating Holland from Spain). So ultimately our strength is not ⁱⁿ hope, but persistence. Persistence in remaining faithful to what we believe in, no matter what. Persistence has a way of triumphing over all odds.

devotion

On another level, but on the same theme, the myths tell us that Dionysus is always escaping from the forms that Apollo is making for him. The human spirit is always breaking out of the prisons that the intellect has built for it. And this is at root what is happening today. The crisis is that our sciences, our religions, our institutions, have become prisons. The human spirit knows there is something much better that is attainable. Dionysus will inevitably succeed.

SHARON MS 2
Gouern and 14pt.

April 2, 1994



KAFKA1.W52

DISK:

April 5, 1994

Humans traditionally have exercised their "image of God" creativity by setting up laws, rules, societies, and cultures. These are all realities within realities, and I find all becoming more absurd and kafkaesq each year. (At least, thank God, these systems are restrained by the laws of physical reality). As examples, I find myself living in a society in which:

- The good economic news of the number of new jobs created the past year being over twice what had been predicted is taken by the number one economic indicator, the stock market, as bad news driving it into a 200 point --% decline.
- The basic law of the land, which states that the Congress "shall make no law respecting an establishment of religion or prohibiting the free exercise thereof"; has resulted in it being illegal to pray in schools and other public locations.
- The economics of the system is such that criminals find it more profitable to take apart cars and sell the parts than to sell the whole car. A totally illogical twist, inverting the conventional wisdom that the whole is greater than the sum of the parts to a situation in which the sum of the parts is greater than the whole.
- The drive to get rid of guns has resulted in more guns being sold than ever before.

These examples indicate that whenever we try to accomplish something, we end up accomplishing its opposite. We evidently have created a society which is totally miswired, and the conclusion to be drawn is that any attempt to rewire it will result in an even greater mess.

DIONYSUS AND APOLLO

Mythic wisdom tells us that Dionysus is always escaping the forms that Apollo creates for him, which is to say the human spirit is always escaping the models that the intellect creates. Today our sciences, religions, institutions, have all imprisoned us, barring us from those loftier regions of mind and spirit which we know are attainable. We live today between two

worlds: one that is dying, another trying to be born. We live at one of the singular points of history when what has been actualized forces release to new potential. The time has again come for the serpent of wisdom to shed its skin.

**In its prime each system is a
triumphant success,
in its decay it is an
obstructive nuisance.**
Alfred North Whitehead

However, there is much ambivalence, an unwillingness to seize the singular moment, a preference to hold to the status quo. We feel that so much of what we have achieved is too valuable to put at risk, which is the price to be paid for going forward. The situation is like that of solving Rubik's Cube. After much work we have succeeded in bringing one face of the cube to the same color. But to go on and solve the second, third, ... faces, we must destroy what we have achieved. We cannot save our result, the face of one color, we can only save the algorithms we have learned for achieving the result. Similarly, we cannot save any of our present models, theories, worldviews; we can only save what we have learned about how to process our experience to produce new models, theories, and worldviews.

The most difficult decision we are called to make at this time is: are we willing to question our religions, our constitutions, our customs, our sacred cows? Are we willing to pay the price of putting at risk our entire culture and its worldview in order to go to a better world? If not, there is also a price. We shall stagnate or even quite possibly become extinct.

DISK: THEO 3 1/2" April 5, 94

DIONYSOS. W52

see also ONTSALA.P51 07/14/92
ON LIBERATION FROM STRUCTURE

Eve seeks to escape the gardens God places her in.

Siva is the Liberator, Vishnu the preserver

Symbolized by: Wine Bread
"I will not drink again..."

We ascend by creation and escape
from what is created

o/w of 1995 #24

Fr Evan Ardley in Dec 1995 church Bulletin:

Apollo's motto: "Know Thyself" [I thought it was Socrates']

Dionysius's counsel: "Be Thyself"

"Today \exists a cold rational knowledge \leftrightarrow an intuitive wisdom of Nature"

Apollo
Order
Plan

Dionysius
Spontaneity

KAIROS1.W52

April 2, 1994

Ecclesiastes 3:1-8 tells us that there is Kairos.

*For everything there is a season,
a time to every purpose under the heaven:
A time to be born, and a time to die;
a time to plant and a time to pluck what is planted.*

The Rubiyat of Omar Khayyam tells us that there is Chronos

*The moving finger writes
and having writ moves on,
nor all your piety nor wit
can lure it back to cancel half a line.*

That there is kairos, a proper time to do certain things, means that time is not an independent entity, but is related to all other things. That there are proper places for certain things in like manner says that space is not an independent frame, but is related to all things it contains.

There are many dyads in the nature of time: Kairos and Chronos, cyclical and linear time, objective and subjective time, peri and dia time, historical and primordial time, ... Some of these are the same slice, but in general there seem to be two aspects to time. Whether these can be considered as dimensions as with space is open to question.

The contents of space determines the nature of space, in particular the density of matter determines the curvature of space. So it is with time. The events determine the extension of time.

Then there is the matter of singular points, referred to by Clark Maxwell. These are special moments of time when causality and determinism is broken. The moments for selecting the next archetype. Even in chaos theory there is the possibility of perturbed initial points leading to quite diverse attractors. When do these initial points occur? Certainly not every moment of time is the same.

Heschel reports that the Hebrews converted cyclical time into linear time by projecting historical events onto their calendar. Thus the beginning of spring, a cyclical event, becomes Passover, an historical event. Harvest, a cyclical seasonal event, becomes Succoth, an historical event. etc. The Christians followed this same practice projecting certain historical events, the Nativity, the Presentation, the Annunciation, the Resurrection, etc onto calendric seasonal times, converting the cyclical into the historical. Thus the liturgical calendar, though cyclical, is made historical and hence linear. This results in the destruction of Kairos, replacing it with Chronos. It is paradoxical that the kairotic statement of Ecclesiastes 3:1-8 is rendered ineffective by the transference of cyclical to historical time. This practice has resulted in Christmas being an historical event, not an ever recurring event. Resurrection is historic, an event that took place 2000 years ago, rather than an event that occurs every year. The living vitality of Kairos is lost.

KAIROS14.W52

April 12, 1994

Chronos and Kairos

There are two distinct aspects of time. A description of the first is given by Omar Khayyam in the Rubaiyat:

*The moving finger writes
and having writ moves on,
nor all your piety nor wit
can lure it back to cancel half a line.*

A description of the second is given in the Bible, Ecclesiastes 3:1-8:

*For everything there is a season,
a time to every purpose under the heaven:
A time to be born, and a time to die;
a time to plant and a time to pluck what is planted.*

TIME
*
TIMING

The Greeks had a word for each type of time. CHRONOS (ΧΡΟΝΟΣ), meaning a period, a space of time, a duration of time. This is linear time, the time measured by the clock, ever flowing forward, ticking away. Chronos stands for the quantity of time. And KAIROS (ΚΑΙΡΟΣ), meaning the right time for an action, the critical moment, the opportune season. This is cyclical time, the time that presents or denies opportunity. Kairos stands for the quality of time.

Chronos is the time of physics. The aspect of time that can be measured. It is like the metronome of the musician, or like the odometer in our car, telling us how far we have gone. Kairos is the time of being, it has never been measured. It is the rhythm, melody and harmony of the musician, or the country side through which we travel. That there is kairos, a proper time to do certain things, means that time is not an isolated or independent entity, but is related to the events that occur in it. The same is true of space. Space is not an isolated or independent container, but is related to the objects which occupy it.

While kairos was of great importance to ancient Hebrews and Greeks, its experience today is obscured by technology, urbanization, and particularly by our modern worldview. In the age of science we are imprisoned by the idea that only that which is measurable is of significance. Since the only measurable aspect of time is duration, in our worldview time has come to be regarded as having only quantity, and to assert that there is also quality to time, i.e. kairos, is regarded as unscientific.

Casper Open face 24pt

~~Century Schoolbook 12pt~~

Christians pray, "Forgive us our trespasses as we forgive those who trespass against us". This prayer is addressed to God, asking God to forgive us for offenses against God and to help us to forgive the offenses made by others against us. But something is still missing. Have we yet forgiven those whom we have offended? Traditional forgiveness is for those who have wronged us, not for those whom we have wronged. To forgive those who have wronged us in no way equates to forgiving those whom we have wronged.

Blaming the Victim

What is this about? It is about the fact that we fear and despise those we have wronged. Sometimes the fear and hatred precedes our acts of wrongdoing, sometimes it follows. The Nazis early on held a case against the Jews which in their minds allowed them justly to perpetrate all manner of inhumanities. When we have demoted a group of people to below the status of human being, we then can act against them as though they were animals or less. Whatever the initial causes, after Kristalnacht the Nazis had to hate the Jews to justify their violence.

In Israel today, we see the Arabs hating the Jews, unable to forgive them for the seizure of their homeland. We see the Jews hating the Arabs, not only for the acts of terror with which Arabs retaliated, but for the fact that they had wronged the Arabs in the first place. They have to hate the Arabs in order to justify their expropriation.

Christians must add to their prayers, "Help us to forgive those whom we have wronged". *Help us to forgive - not blame - our victims*

In America, much of race prejudice of whites against the blacks results from whites not having yet forgiven those whom they forced into slavery. Black prejudice against whites, more understandably, comes from not being able to forgive those who wronged them (and still wrong them). In spite of great progress toward justice and restitution, fear continues and will continue until forgiveness is completed.

In his 1963 essay, "The World and the Jug", black author Ralph Ellison wrote from "an American Negro tradition which teaches one to deflect racial provocation and to master and contain pain. It is a tradition which abhors as obscene any trading on one's own anguish for gain and sympathy; which springs not from a desire to deny the harshness of existence but from a will to deal with it as men at their best have always done." Here we have a transcendence achieved by blacks that whites will have to work on themselves very hard to equal.

One viewpoint that contributes to the separation of Jews and Blacks arises from Ellison's insight: blacks look on taking anguish and using it for gain or sympathy as obscene. Jews, on the other hand, treat their suffering as a commodity to be fully exploited for every sort of gain. e.g. the Holocaust

But Ellison's "Negro Tradition" goes beyond forgiveness. It reaches a new level: Anguish as the vehicle of transformation. IS this Christian use of suffering taking suffering beyond the negative view of Buddhism? It seems so.

We can use our anguish

to fuel revenge
for exploitation
for transformation

huh?

Arab terrorists

Jews

Blacks

Whites

THE SECULAR RELIGION OF AMERICA

Responsibility is unAmerican. We have repealed the law of Karma. Or rather modified the law of Karma. No longer does every action have its consequence. We hold that the cause of any consequence never belongs to the individual performing the undesirable action but to some antecedent attributed to another: A parent, an abuser, a slur, This permits both blame and responsibility to be diffused.

In the teachings of most traditional religions, the path of growth is first to develop personal responsibility, then with maturity, increasingly to take on responsibility for the welfare of others. The secular religion of America, on the other hand, bypasses development of personal responsibility, concentrating on how to assign blame for anything wrong onto others. This is mixed with an unlawful pity or compassion for wrong doers. While Buddhists, for example, stress compassion, they also hold the law of Karma inviolate. Compassion without Karma doesn't work.

The soft attitude of Christians is derived in part from their doctrine of forgiveness. They have interpreted the teachings of Jesus that so long as one confesses and says they are sorry, then they should be forgiven. The real teaching is that when one changes their ways they are to be forgiven. Saying "I'm sorry" is meaningless unless backed with genuine metanoia. Both the current interpretation of Christian doctrine and the secular religion derived from it render American society uncorrectable.

American society is soaked with the sense that with enough explaining, a good lawyer and the pressing of the right buttons of guilt and victimology, there is a way out of most things. Confession is a substitute for contrition and retribution.

Margaret Carlson

But it is not only our religions that are steering us to disaster, it is our entire legal structure. The American lexocracy is blocking the way to achieving its avowed goals. The law enhances lawlessness by creating an atmosphere of turtle retreat for fear of being sued for any act of correction. We cannot be our brother's keeper in this society. Crime is the price we are willing to pay in order to sustain the inequities of racism, sexism, drugs and unbridled capitalism. Until we replace poverty with hope, special privilege with opportunity, and prejudice with respect we shall continue down the road of violence and disorder.

Whistle blowing is the number one societal offence. It is an assault on Freedom

COMPRES. W60

04/25/94

CASPER OPEN FACE ~~12-8~~ 16

GATINEAU 14 1/2" (GARAMOND)

97/02/10

The Grandmother jailed for feeding a parking meter.

In America today, no good deed goes unpunished.

The Glory of Uniqueness

of 91-#83
IN WHITE (P5)
KINSHIP & UNIQUENESS

There is one glory of the sun, and another glory of the moon, and another glory of the stars: for one star differeth from another in glory.

I Cor 15: 41

In the age of science our focus is directed to the commonalities that appear to underlie the phenomena of experience. We seek to make generalizations from our experience, looking for fundamental laws that govern the behavior of the universe and its contents. We significate the processes of stellar and bio evolution and try to predict their outcomes. We attempt to formulate the archetypes that script the patterns and processes that unfold in the world and speculate on their eschatological 'omega point'. The driving force behind this epistemological approach is a **monistic** world view. The universe is **one** as the etymology of the word declares. Not only does our science seek grand unified theories, but our religions insist there must be **one** God, **one** faith, **one** people, [And our politics, **ein** Volk, **ein** Reich, **ein** Fuhrer]. However, since the pluralistic nature of phenomena cannot be ignored, the monistic worldview must resort to declaring what is significant in the world to be the commonalities in its processes and patterns, for the commonalities are **one**, while the differences are many.

Our monistic worldview celebrates the winner because the winner is **one** while the losers are many. The monistic worldview institutes orthodoxy and its derivative heresy. There must be **one** correct or superior way, the others are to be eschewed or obliterated. The truth must be like a pole, not like a tree having many branches. And certainly not like a forest of many trees (or even poles). Finally, there must be **one** superior race, religion, gender.

But what if Brahma created the world, not to see how it would end, but to enjoy the myriad variety that it could produce? What if it is not the commonalities and generalizations, but the variety and uniqueness that is of importance? What if the significant is not the theme itself but the possible variations on the theme; not the similarities, but the peculiarities; not the Boolean intersect, but the join or the join minus the intersect? How would this worldview change our institutions and lives?

Perhaps we would look not for **the** solution, but for the totality of solutions, not for **the** answer, but for the totality of answers. Perhaps we would honor all those who contended and did not win. Honor those who were rejected, disdained, oppressed, ignored, ridiculed, persecuted, burned at the stake, crucified. Celebrate all the branches that have been pruned, all the alternatives not selected, all the paths left unexplored, all the facets ignored. Celebrate the wisdom of each species, the uniqueness of each life, the glory of each star.

all the
causes
lost

Century Old

See also DUMATELHI. WPW 93 #53

Savor the uniqueness of every object and moment
and the complex web of destinies linking them.

Ben ? p29

April 28, 1994

31

The funeral is an act of sealing. In which we are to let how we are to think about a person

RICHARD MILHOUS NIXON

Yesterday was a day of mourning for President Richard Milhous Nixon, who passed away last week at the age of 81. I watched on television the funeral service at Yorba Linda. The rituals were the most expressive and emotional since the funeral of Nixon's rival John F. Kennedy, 32 years ago. All living presidents attended: Ford, Carter, Reagan, Bush, and Clinton. Former vice presidents, secretaries of state, defense, and others were also there to say farewell to Nixon. It was an emotional afternoon and a strange one. Certainly it was no ordinary presidential funeral, but Nixon was not an ordinary president.

President Clinton, in his remarks, stated that it is proper to judge a person by the totality of his life, not by some selected portion. And evidently most of the 1500 present and the thousands who queued to pay respects at his bier felt the same way, and further that, in the balance, Nixon's record came out on the positive side.

But there was a tension between the feeling that in the balance, here was a man who deserved to be honored and yet in specifics deserved our continued approbation. Americans were called on to choose between two of their values. To face hard facts, keep the record straight in order to avoid future repetitions of mistakes, or to forgive and absolve for the sake of purifying our history. This tension, which was at the heart of the sixties, resurfaced inwardly for many at the funeral. It is striking that while condemning Nixon for a political cover up, at the final hour Americans opted for a historical cover up. For now, let us ignore the vices and record the victories. Tomorrow let us forget the vices and remember only the victories. With such a recording of history, of what use is Santana's caveat: "Those who know no history are doomed to repeat it."

The only time I ever saw Richard Nixon in person was while waiting for a plane at the old L.A. airport, near the end of one of those long bleak narrow tunnels that were the forerunners of today's lounges. This was a few months after Nixon's defeat in his try for governor of California, and shortly after his speech, "You won't have Richard Nixon to kick around any more". There were only about a half dozen people in the tunnel, Nixon was alone, away from the group, leaning against the wall hands in his pockets and staring blankly at the floor. He seemed so unlike other politicians I had known, who would never pass up an opportunity to go around and shake hands. But Nixon couldn't do that, he was in pain. I could feel his pain but also could feel the formidable stone wall that he placed between himself and the rest of us. Finally someone (~~somebody said it was I~~) went up and spoke to Nixon and he relaxed, became animated and conversational. Perhaps what never happened nationally was that Nixon needed the people to come to him, for he could never go to them, apologize and ask to be forgiven. Yesterday afternoon at Yorba Linda the people finally came to him. (42,000 paid respects)

* The politicians learned the lessons of history (Watergate)
 (The people didn't)
 Politicians learned how a proper cover-up should be done
 by the time of Irangate

An overrated legacy

NIXON'S FOREIGN POLICY

By STEPHEN ZUNES

I teach political science to college students, and I've only just realized that for these young Americans, Richard Nixon is ancient history.

In a recent class discussion on his legacy, one of my freshmen questioned why Nixon was one of my favorite targets. Watergate, the student argued, was more than offset by Nixon's foreign policy achievements. Now, at Nixon's death, many pundits are lauding that legacy as my student had.

But Nixon's foreign policy was not what it's cracked up to be.

It was Nixon's tactics that undermined a comprehensive peace in the Middle East in the early 1970s. He did not attempt to settle the Palestinian question at the heart of the conflict, and even encouraged Israel to reject early peace overtures by Egyptian President Anwar Sadat, a blunder which led to the October 1973 war.

Nixon helped to start an arms race in the Middle East by selling large amounts of U.S. weapons to both Israel and many of its Arab neighbors — as well as Iran.

Here Nixon fed the shah's megalomania with billions of dollars worth of high-tech weapons. Nixon armed and trained the shah's dreaded Savak secret police, who tortured and murdered thousands and fueled the radicalization of the population.

Iran's embrace of an extreme reactionary form of Islam is one of Nixon's greatest diplomatic failures.

Nixon also missed a crucial opportunity for serious arms control with the Soviet Union by launching an ambitious upgrade of nuclear weapons systems.

The ensuing arms race harmed both countries' economies and destabilized deterrence efforts. The much-lauded SALT I agreement merely placed high ceilings on already obsolete delivery systems.

In Vietnam, Nixon finally settled the war in 1973, but on terms he could have just as easily received upon taking office four years earlier.

Tens of thousands of Americans and hundreds of thousands of Vietnamese died needlessly in the interim. He spread the war to Cambodia, causing such massive destruction that the obscure and extremist Khmer Rouge rose to power at a cost of more than 1

million lives.

Sanctioning air strikes against civilian targets in Indochina is perhaps Nixon's most shameful legacy. Vast areas of the countryside as well as the cities of the north suffered what was then the heaviest bombing in human history.

Even German leaders who ordered the bombing of Holland's dikes received their judgment at Nuremberg. Why should the man who ordered similar attacks against the dikes of North Vietnam be celebrated as a great foreign policy leader?



Nixon

In Latin America, Nixon embraced dictators. He undermined a democratically elected government in Chile. He backed Portuguese colonialists in their cruel African wars.

He violated the United Nations embargo against the renegade white minority regime in Rhodesia. Even his highly touted opening of China and detente with the Soviet Union seem so extraordinary only because of Nixon's rabid anti-communism.

Tempting as it may be, we should not demonize Nixon.

He was backed by a national security apparatus that remains intact to this day, and his foreign policy reflected the interests of that apparatus.

But the true legacy of the achievements and failures of Richard Nixon is marked by an obsessive and narrow understanding of our nation's self-interest, and an almost paranoid view of other nations.

As I try to convey this message to my students, it reminds me of my first year at college, soon after Nixon's resignation.

My first assignment in my American government class was to write an essay titled "Unfortunately, Nixon Represents the Best of America."

As my professor realized, how history ultimately judges Nixon's foreign policy will say at least as much about us as it does about Nixon.

Stephen Zunes, a visiting professor of politics and government at the University of Puget Sound, directs the Institute for a New Middle East Policy. From Knight-Ridder Newspapers.

KINDERGARTEN COSMOLOGIES^{STS}

I am often asked how I decided to become an astronomer. Unlike a lot of other things I did and know not why, I have a very clear memory of why I decided to become an astronomer. The story goes back to Denver, Colorado sometime around 1924.

We lived in a small upstairs apartment on Franklin Street between Colfax and 16th Ave. Across the street was a large vivacious self confident family whose name was Lunt. The youngest son in this group was a boy my age named Horace. We were to attend kindergarten together in the fall at the old Wyman School. We had developed a close relationship which involved not only play but discussions on all manner of things which challenged young boys.

One day the subject of the world came up. And somehow a dispute arose over whether we lived on the inside of the world or the outside. I held that we lived on the inside of the world. My cosmology was that the world was shaped like a hamburger bun, flat on the bottom, round on the top. It was a hollow bun, the earth was the flat part beneath and the sky was the round part overhead.*This was the observational cosmology of a five year old. But against this was the well informed cosmology of a teacher's youngest son. He knew that the world was shaped like a ball and that we lived on the outside not the inside. This stunned me, it violated all my personal experience. I could not imagine this. To settle the dispute we took the matter to authority, an older Lunt sister. I was wrong. The earth was a sphere and we lived on the outside. Furthermore there were other spheres, the sky was full of them. They were called planets and stars. How could I be so wrong? I guess I felt I had not given the matter adequate consideration. So starting right then and there I began to give the matter consideration. I learned all I could about the earth, planets and stars. By the time I was in the fourth grade I was the recognized authority on all matters astronomical. The momentum of this launched me into a career in astronomy in which I was an observer, a theoretician, a professor, the director of an observatory. But though I taught astronomy for many years, I never took a course in astronomy.

Although my observational model as a five year old was wrong, I have never given up the value that personal experience is to be trusted. And all my life I have have placed my personal experience, not against conventional wisdom, but in juxtaposition to it. And when there are differences, I have to assume both are somehow right and search for a larger framework that contains them both.

*I question both
and tend to the one that is most liberating*

* I, of course, did not know that the ancients had the same idea, but used the turtle as the cosmic symbol (flat on bottom rounded on top. [They evidently didn't have hamburger buns in those days and had to substitute turtles.]

HORACE GRAY LUNT III

went on to become an outstanding linguist.

He became a professor of Slavonic Languages at Harvard
and one of the world's foremost scholars on
Old Church Slavonic.

THE GRAVITATIONAL POTENTIAL BOUNDS

The general theory of relativity states that there exists a bound on the gravitational potential, Mass/Radius, of all gravitating bodies. This bound, known as the Schwarzschild Limit, is the locus of those bodies and particles for which the metric radius, R , is equal to the gravitational radius, GM/c^2 , where G is the gravitational constant, M the mass of the body, and c the velocity of light. For bodies and particles consisting of uncollapsed matter, the bound states that:

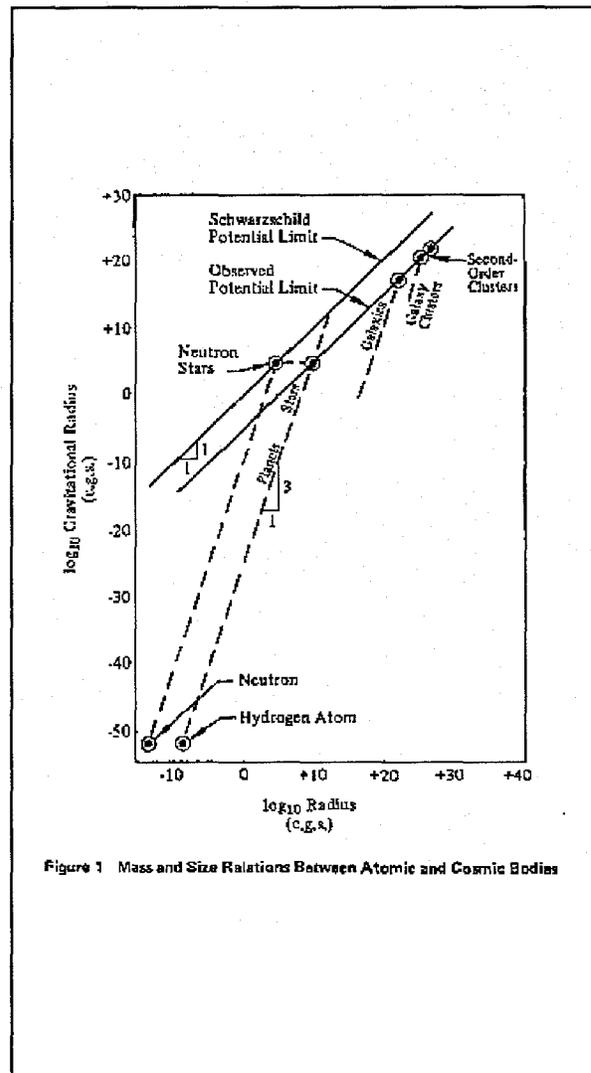
$$(1) \quad \frac{GM}{C^2 R} \leq 1$$

When gravitation collapses an object the Schwarzschild Limit is violated and matter leaves the visible universe entering the realm of black holes.

In addition to the Schwarzschild Limit there is also a second paralleling potential limit bounding all normal matter--electrically neutral atoms, molecules, and bodies composed of such matter, such as planets, main sequence stars, etc. The expression for the bound in this case is:

$$(2) \quad \frac{GM}{C^2 R} \leq \alpha^2$$

Where α is the fine structure constant. This second limit is an observed limit governing all cosmic bodies composed of ordinary matter. No electrically neutral atom or composite body made of such atoms exceeds this limit. The zone between the two limits is occupied by white dwarf and neutron stars, and objects and particles of nuclear density.



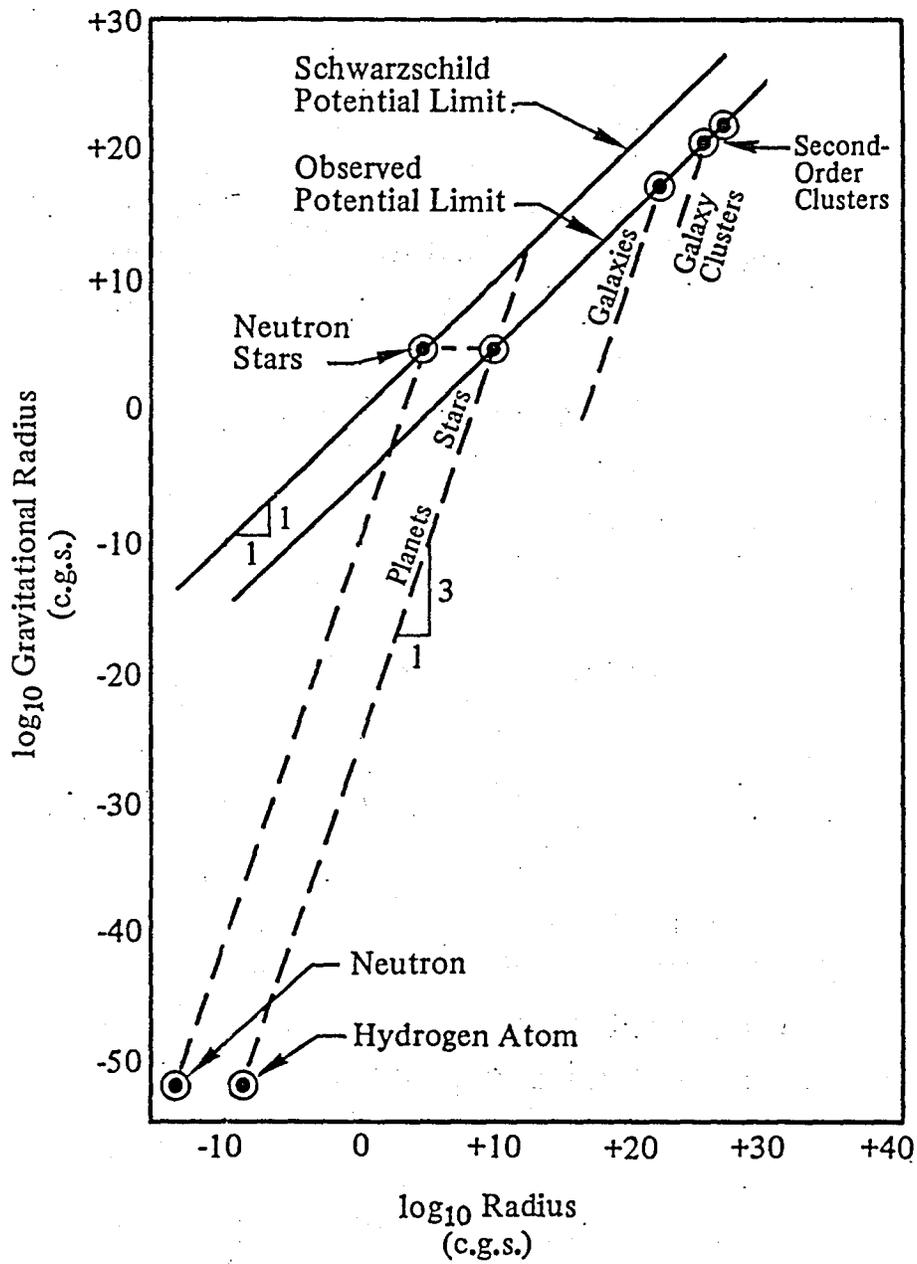


Figure 1 Mass and Size Relations Between Atomic and Cosmic Bodies

A SAND CASTLE

[An answer to Job]

Some years ago Len, his two sons and I went to Zuma Beach near Malibu. We had planned to build the mother of all sand castles and came equipped with spades, trowels, various molds and whatever else was useful for creating an architectonic wonder. But we had forgotten one important item--a camera. There would be no record of our handiwork. Undaunted, we pitched in and with our combined imaginations and creativity by noon had created in sand a fortress with turrets, battlements, drawbridges and every other fenestration we could think of. Any medieval lord would have been proud to have possessed the real version. The boys were delighted with their creation. They viewed it from every angle, lying down, climbing the cliff and viewing it from above, and finally dancing all around it.

Suddenly we realized the tide was coming in. Each successive wave was creeping closer to the castle. This alarmed the boys. They felt what they had built, being so elegant, must somehow be permanent. They couldn't be reconciled to their work being obliterated. First they decided to build a dike that would divert the waves to the sides and preserve the castle. It seemed like a good idea, the dike did divert the first few waves just as it was supposed to do. But then it became apparent that the dike was being eroded by each wave and unless we kept bringing in more sand, it would soon be overwhelmed. For a while, the sand brigade held the line. But then the relentless sea made an end run and it became apparent that we could never build a dike long enough nor massive enough to forestall the inevitable.

When the boys saw that in spite of all efforts the castle was doomed, they decided to destroy it themselves. Len and I tried to dissuade them. Let the sea do its work. We will watch the castle go down with dignity. But the boys could not stand the sea being in control. If the castle had to be destroyed, they at least would be in charge of its destruction. They flew into the castle with a fury and kicked it into shambles depriving the sea of any conquest. In doing this they felt that in some way they had achieved a victory.

Going home we had something to think about. The day at the beach had presented us not only with the fact that the ultimate power of nature must ever be faced, but with a pattern imbedded in our own psyches which also must be faced. After discussing it all, we decided that what was really important was that we knew we could build a better castle next time. We weren't stuck with the one that was washed away.

Records were invented to replace mortal memories.
resulting in "race memory". But is memory mortal?
Does not something exist even were there no records? A true race memory?
Access to this collective memory is not recollection
- it is recognition.

01/04/21

What is this "pattern embedded in our psyches"? that
leads us to destruction when we are frustrated with
what is beyond our power?

The Mergal
Empire
- Michael Prawdin
p 486

The story is told of Miran Shah, the (30) son of Tamerlane,
who was given the governorship of Tabriz. When he arrived at Tabriz
he was carried away by the beauty of the city, the palaces,
the mosques, the public places. He decided, in order to
glorify his own memory, to build edifices more
magnificent than any that existed. But after several
attempts he realized what he was building could in no way
rival what Tabriz already possessed. Then in his
frustration, he suddenly commanded: "Tear them down,
the mosques, the palaces, the splendid public buildings
- tear them all down"

The creator either liberates his creation
or ~~he~~ continues to possess it. Frees his
child or continues to control him. And if
his control is threatened, he will destroy
his creation rather than letting it be free.

God sacrificed Son on the cross

Did Yahweh ever liberate creation?

The creator must liberate his creation!

The messenger must deliver the message!

This is a dry season. Everything seems on hold, on dead center. Energy seems to have become locked up, frozen, the flow has stopped. It is like money, it has been siphoned into fewer and fewer pockets, and sits in the coffers of the greedy motionless. The system has strangled everyone and is now strangling itself.

It seems as though we are riding on a subway train. We entered at birth and we will exit at death. Probably from a different station than where we entered. We have difficulty remembering anything before we got on the car. What were we doing before we got on, why are we here, where are we going. We watch people get on and get off, wondering when we are supposed to get off.

We have a vague map of the subway system, which seems to be mostly a huge loop. We know the names of some of the stations and their sequence (philosophy and religion) but there is only speculation of what it ^{is} like ^{above} above. Why can't we remember?

We are getting a better idea of how the train works, brakes, power, wheels, tracks, lights, the cables along the walls (science and technology), but that is of no use in informing us why we are riding and what we should be doing. Some hold that when we have all the details of how it works figured out, we will know what the ride is about. I doubt this deeply.

Meantime, we concentrate on our fellow passengers, and get absorbed in all of the drama taking place within the car. The lovers, the drunks, quarrelling couples, sleepers, noisy kids, readers, and once in a while violence, and quick exits. OR watch the cables on the passing walls, colored lights appearing and disappearing, and peering intently at station stops in hope of getting some clue of what is upstairs.

But the car is getting crowded, no longer can everyone have a seat, and the air is getting foul, smoke, pollution. It is becoming difficult to reflect on the ride any more. But one still wonders whether topside is the same at every station, or varies from place to place. There does seem to be a faint memory of the above, but have we taken previous rides? And why should anyone want to come down here and ride on this thing. Perhaps we are all bodhisattvas, why else would anyone choose to be here.

WHITRED1.WP6

DISK:WORKDISK

November 11, 1990

JUNE 22, 1994

THE WHITE AND THE RED

See 1996 #28

1996 #38

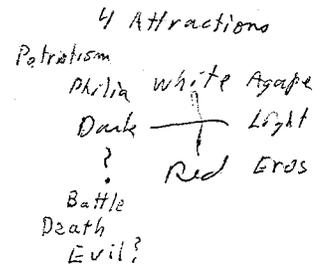
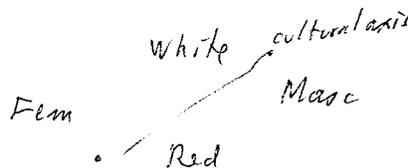
In the archetype of war, the eternal struggle is not the Zarathustrian struggle alone. The cosmic contestants are not only Light and Dark but also White and Red. Along side and within the battle between the soul and its shadow is the struggle between vision and compassion. While the battle between Light and Dark is fought to overcome the other, the battle of White and Red is fought to unite with the other. The soul and its shadow are forever one, yet struggle to be separate. Vision and compassion are forever separate, yet struggle to be one.

The cross dialectic of Light-Dark and White-Red dissolves rigid structures and permits the emergence of the new.

WHITE	RED
VISION	COMPASSION
WISDOM	
COURAGE	NURTURING
CLIMBING UP	CARING
MASCULINE	FEMININE
CHIVALRY	
Head	Heart
Intellect	Feeling
APOLLO	DIONYSIUS

White + Red are divisions within the masculine.

SEE NOTEBOOK ON THE WAR POETS



- Dyads:
- Masculine / Feminine
 - White / Red
 - Light / Dark
 - Celtic / Roman

Red/White

and

Celtic/Roman

run through all civil wars

(intra-war, ~~including~~ intra-individual)

Some Notes on Buddhist Ontology

"The more we reference the self, the more the idea of the self arises"

This notion is related to the Persian Adage regarding the two types of truth: One type of truth is true only if reference to it is continually repeated, the other type of truth is SAT. It is also related to Whitehead's proposition that only that which recurs is available to awareness.

We must compare this also with the Taoist idea of reality and continuity (Chuang Tzu), and that repetition is a form of continuity.

If the Aksobya operation of self-reference requires repetition to assure existence, then the ontological dyad is SAT and continual self-reference.

or Brahman

But self-reference is more like iteration than repetition. It is a snow ball, ever growing with each occurrence. The 'most real' is that which occurs most frequently.

Does it follow that anything that is not referenced becomes non-existent? If so, this explains the striving for immortality through fame. It accounts for the power of the historian. ["History is what I write it to be"--Joseph Stalin.] As reference becomes more infrequent, the referent passes into oblivion.

That which contains implicit cyclicity, e.g. atoms, the earth, perhaps the universe itself, [The universe will die unless it is cyclical.] possesses auto-self-reference and hence extended existence.

Rather than say all except ^{Brahman} SAT is illusion, it is better to say that all except ^{Brahman} SAT passes away as its repetition fades.

What remains when repetition ceases is ^{Brahman} SAT.

In getting off of the wheel, do we cease to exist or do we become SAT? ^{Brahman}

SAT = NON-EXISTENCE ?

What then, if anything, is SAT? ^{SUCHNESS}

Brahman is Nothingness - the Nothingness of Ex-Nihilo

In the above we are clearly talking about awareness, but are we also talking about objective existence? To investigate this we must go into the triad, O, E, and P as given in the metaphor of the face on the cliff.

THE 5 DYANI BUDDHAS ARE SAT

DYAD

SAT and NOT SAT

CYCLICAL ∴ IN TIME AND IN EXISTENCE
TO EXISTENCE MEANS TO BE IN TIME

I can remember what I dreamt last night
but in a dream I can never dream what
I had for lunch yesterday
EUT

a loop
SAT is bootstrap - self sustaining
requiring no repetitive feeding
of praise, worship, or information
(negentropy)

The Godhead is SAT
but God must be praised

All that is, is either a loop
or cyclically sustained
repetitively
∴ [2 kinds of Loops
Whiteheads repetition
and Brahman

KEPTIME.WP6

DISK:

July 7, 1994

More on the Kepler Time Paradox

In the case of one dimension, there is the law of conservation of momentum:

$$mv=k, \quad t/r \propto m, \quad t \propto rm \quad (1)$$

In the case of two dimensions, there is the law of conservation of angular momentum:

$$mvr=k, \quad t/r^2 \propto m, \quad t \propto r^2 m \quad (2)$$

This result is seen to be the same as Kepler's Second Law, the law of areas.

However in three dimensions, an inversion occurs. Kepler's Third Law tells us that:

$$mt^2/r^3 = k \quad r^3/t^2 \propto m \quad t \propto r^{3/2} m^{-1} \quad (3)$$

A table compares the results of equations 1), 2), and 3):

DIMENSION	EXPONENT OF r	EXPONENT OF m
n = 1	1	1
n = 2	2/1	1
n = 3	3/2	-1
n = 4	4/3 ?	?
n = n	n/(n-1) ?	?

Multiplying 1) x 2) \times 3) gives $m^3 = k$, while 1) x 2) $\frac{2}{3}$ 3) gives $t^4/r^6 \propto m \rightarrow t \propto r^{3/2} m^{1/4}$
(conservation of mass)

We seem to have two kinds of time: Momentum time and Density time.
 Kepler's Third Law introduces two dimensional time.

THE GREAT MYSTERIES

There are four great Mysteries in the Christian tradition. These are:

The Incarnation—the Mystery of Beginning, of Creation

The Crucifixion—the Mystery of Death

The Resurrection—the Mystery of Life

The Transfiguration—the Mystery of Eternal Becoming

In every religion the matters of Death and Life, of Beginnings and Endings are of central concern. Peculiar to Judaism and Christianity, ending or termination was replaced by open, on going development and transformation. There is no finality, no eternally repeating cycles, rather there is the dynamic of movement to ever higher planes. sustained by the coming of the Messiah or by the second coming of the Christ. This dynamic is the essence of the Mystery of Eternal Becoming, symbolized in Christian tradition by the Transfiguration of Christ.

It is strange that the mystery of the Transfiguration, always held to be of primary importance by Eastern Orthodox churches, ranking with or above the Incarnation and Resurrection, was totally ignored in the West. This may have been because the concept of open on-going transformation was threatening to a politico-ecclesiastical establishment with vested interest in the status quo. Only at the time of the Reformation did the Roman church admit the Transfiguration to its calendar. Anglicans, though installing it in their calendar in 1892, have been generally blind to its significance and doctrinal importance, as seen in its precedence rank in the Book of Common Prayer...

The MYSTERY OF EXISTENCE

Mystery & Mysterium
Conyn Doyle Congruo

ON Mystoria

- 91-85
- Gf. Pyramid
- 93-22
- 93-40
- 94-39

A MYSTERY PERMITS NEITHER ORTHODOXY NOR HERESY

THE ITERATED RE-CREATION OF GOD AND MAN

The Archetype of the Great Antiphony

Sacred writs, such as the Bible, are characterized by wisdom to be understood on many levels. The mythic and historic stories on one level contain highly visible moral and ethical lessons but with different metaphorical interpretations can provide deeper understanding. For example, the story of the Exodus, Moses leading the Children of Israel out of bondage in Egypt: When viewed metaphorically, the Children of Israel were led not only out of physical bondage under pharaoh but were led out of a spiritual bondage to a primitive concept of the God. Through the theophany on Mount Sinai God was seen to be a God of justice and protection. The vision of this new and higher God was a greater liberation from bondage than the escape from pharaoh. And for all time *there exists no greater liberation from bondage than that of a new theophany*. But the Jews, though in possession of this experience, rejected later Exoduses and remained in idolatry to this particular Exodus. The tragedy of the Jews, and of many others, is in the failure to see specific historical events as but one manifestation of an ever recurring archetype, the ongoing iteration of exodus and theophany, leading to ever higher and deeper understanding of the nature of GOD.

This same archetype is repeated in the New Testament. But not only is it repeated, it is made explicit in the singular event of the Transfiguration. But as with the Jews of the earlier time, the Christians became stuck on a particular manifestation of the archetype and failed to understand the most profound

event in the Gospels. This event, the Transfiguration, except in the case of some of the Eastern Churches, has been generally ignored, relegated to minor significance and superficially interpreted. It was only on the eve of the Reformation that the Roman Church finally recognized the Transfiguration in its calendar. And Anglican groups recognized it only at the end of the nineteenth century. This may in part be because the message of the Transfiguration, that no human view of God is final, was sensed as threatening to an ecclesiastical power establishment that maintains it is the sole custodian of God for their flock. Another reason the Transfiguration may have been neglected is that the most profound events are lost in the glare of more spectacular (e.g. Resurrection) and understandable (e.g. Crucifixion) events. Be this as it may, there are theologians and even branches of the church that significate the Transfiguration as the most fundamental event recorded in the Gospels. In this age when the church, as well as many secular institutions, are caught up in crises of change, it is most important to reexamine the content and context of the Transfiguration.

The story of the Transfiguration is reported in the Gospels of Matthew (17:1-13), Mark (9:2-9), and Luke (9:28-36) and amplified by Peter (IIPeter 1:16-19). That the Transfiguration is missing from the Gospel of John, has been explained by the view that the entire Gospel of John is an amplification of the Transfiguration. An amplification, perhaps, but the amplification of but one

The Jews "historisize" the archetypes
losing the essentials

interpretation. The Transfiguration, like other Mysteries, contains multiple meanings which are manifested in accord with level of spiritual understanding of the witness. To settle for truncated interpretations decreed by ecclesiastical politicians is to abandon Living Faith.

[Insert here the details of the theophanies of Moses and Elija]

The Transfiguration is the form given in the Gospels to the message that the path to God is through successive theophanies. This message could be made much more explicit in the New Testament than was possible in the Old Testament story of Exodus. This is because the first occurrence of an archetype is never recognized as an archetype. The second occurrence is also not recognized as an archetype but is seen as a prophetic fulfillment of the first occurrence. Thus the parallel occurrences of archetypes in the Old and New Testaments were interpreted as New Testament fulfillments of Old Testament prophecies. But even so, the message is still largely misunderstood and ignored. Priesthoods and power elites with a lifetime investment in an established theophany find it difficult to accept change and vigorously oppose replacements. It is a paradox that the old theophany which serves as the launch pad for the new also becomes the primary obstacle to the birth of the new. Crucifixions, burnings at the stake, and religious wars all attest to this aspect of the archetype of a new theophany. Though Pharaoh or Herod would put the infant to death, in time the outcome is always that the child survives and leads the people to a higher place. It is the outcasts and those with no stake in the existing order, not the princes and priests, who become the apostles of the new order.

The theophany of Moses and the theophany of Jesus were not seen as steps in a succession of multiple divine revelations, but as a prophecy and its fulfillment. This interpretation cut off belief in the possibility of subsequent occurrences of the archetype and of the revelation of new theophanies. The theophany of Jesus was taken to be final. The Christ Event was held to be unique and could occur only once. This belief fitted well with the ecclesiastical power centers' control of religion and with their ability to continue their control. It allowed all challenges to their authority to be labeled heresy and subdued in the name of God. But in spite of this doctrine of finality, Christians still look for the second coming of the Christ just as the Jews still look for the coming of the Messiah. The power of the archetype overcomes the distortions imposed by those who would forbid God from again making contact with this world. Not even the doctrine that the second coming is solely for judgement deflects the hope in human hearts for a brighter vision of God.

But the archetype of successive theophanies is not peculiar to the Bible. It is exhibited in the development of many other religions. It is seen in the avatars of Vishnu, in the succession of Buddhas, particularly in Maitreya the Buddha next to come. It is recounted in the multi returns of Quetzalcoatl, and metaphorically in the successive Hopi exits and entrances through the hole in the floor of the kiva, and abstractly in Kukai's ten levels of consciousness leading to Shingon. This eternal expectancy of the One yet to come supports in no small way the dynamic of collective spiritual emergence.

At some point in the unfolding of the archetype comes the moment of liberation. The moment when freedom finally arrives. The euphoria of this moment has few rivals in human experience. It is experienced when something is heard that immediately is recognized as true even though never before articulated, when suddenly the shackles of frozen authority are removed. It is experienced in the first days of a revolution when potential becomes boundless before actualization sets in. It is the completion of the passage of the Red Sea. It is the moment of discovery of the empty tomb. It is the experimental verification of non-locality. It is when we get a glimpse of who we really are and what we can become. And of all liberating events, a new theophany --a brighter vision of God-- is the greatest.

time line: christianity in the British Isles

DATES	POLITICAL EVENTS	DATES	ECCLESIASTICAL EVENTS
c 500BCE to c 100BCE	IRON AGE INVASION OF Q-CELTS FROM SPAIN INVASION OF P-CELTS FROM NORTHERN EUROPE, SPEAKING BRYTHONIC		
55 BCE 43 CE	ROMAN INVASION, JULIUS CAESAR ROMAN INVASION, CLAUDIUS EMPEROR	< 37 CE	GILDAS WRITES THAT CHRISTIANITY ARRIVED IN BRITAIN DURING THE REIGN OF TIBERIUS, (died 37CE)
		< c 60 CE	LEGEND STATES THAT ST JOSEPH OF ARIMATEA BROUGHT THE GRAIL TO GLASTONBURY
		137	LUCIUS, KING OF BRITAIN BECOMES A CHRISTIAN
		209	ST ALBAN, MARTYR
292	CONSTANTUS COMMANDER AT EBORACUM (YORK) BECOMES EMPEROR	325	CONSTANTINE ADOPTS CHRISTIANITY COUNCIL OF NICEA
306	HIS SON CONSTANTINE BECOMES EMPEROR	397	ST NINIAN TO WHITHORN d432
410	ROME WITHDRAWS LEGIONS FROM BRITAIN	411	PELAGIUS (370-418) CONFRONTS AUGUSTINE OF HIPPO (354-430)
420	BEGINNING OF SAXON INVASIONS	430	POPE CELESTINE SENDS PALLADIUS FIRST BISHOP TO THE IRISH
c 503	BATTLE OF MOUNT BADEN, BRITONS REPULSE SAXONS (KING ARTHUR?) IRISH COLONIZE ARGYLL	432	ST PATRICK (387-461) TO IRELAND
	GILDAS (498-570) HISTORIAN	c 520	ST BRENDON'S (484-577) VOYAGE TO THE WEST
570	MUHAMMED BORN (570-632)	565	ST COLUMBA (521-596) TO IONA

600 GREGORY I ASSERTS THE
SUPREMACY OF THE PAPACY

665 THE GREAT PLAGUE

THE VENERABLE BEDE (673-735)
HISTORIAN

732 CHARLES MARTEL HALTS ISLAMIC
EXPANSION AT TOURS AND POITIERS

797 VIKINGS RAID LINDISFARNE

800 BEGINNING OF VIKING INVASIONS

JOHN SCOTTUS ERIGENA (810-877)
PHILOSOPHER

1066 NORMAN INVASION

591 COLUMBANUS (543-615) TO GAUL
SWITZERLAND, ITALY

596 POPE GREGORY I (THE GREAT) [590-
604] SENDS AUGUSTINE TO BRITAIN

635 ST AIDEN (595-651) TO LINDISFARNE

657 ST HILDA (614-681) FOUNDS WHITBY

664 THE SYNOD OF WHITBY

669 ST WILFRID(634-709) BISHOP OF YORK

684 ST CUTHBERT (634-687) BISHOP OF
LINDISFARNE

COMPARATIVE RELIGION 101

PAGANISM	CONFUCIANISM	HINDUISM
Shit sometimes happens	Confucius say "Shit happens"	Do what you please the outcome is shit always happens
TAOISM	BUDDHISM	ISLAM
The shit that happens is not the real shit	If shit happens, it is not really shit	If shit happens, it is the will of Allah
CATHOLICISM	PROTESTANTISM	JUDAISM
If shit happens, you deserved it	If shit happens, you didn't try hard enough	Why does shit always happen to us?
SECULAR HUMANISM	ZEN BUDDHISM	NIHILISM
Let shit happen to someone else	What is the sound of shit happening?	Everything is shit

COMPLETE WISE

REVISED AUGUST 19, 1994

ON MYSTERIES AND MYSTERIA

- A MYSTERY IS A SET OF POSSIBILITIES ONLY ONE OF WHICH IS TRUE.
- A MYSTERIUM IS A SET OF FACETS ALL OF WHICH ARE TRUE.
- A FANTASY IS A SET OF SPECULATIONS NONE OF WHICH NEED BE TRUE.

Sets of possibilities may be classified in two categories:

1) The first category we shall call a *mystery*. It is a collection or set of events or configurations only one of which is real or true, the others possibly differing from the true by only minute amounts or details. The task is to decide which is the real or true member of the set.

EXAMPLE: The Great Pyramid of Gizeh. Its design fits many mathematical models. The builders probably employed a particular model in their design. Which one?

EXAMPLE; The curvature of space-time. Do we live in a universe whose curvature is > 0 , $= 0$, or < 0 ?

EXAMPLE: Any of the genre "who dunnit?" where there may be many suspects but only one culprit.

2) The second category we shall term a *mysterium*. It is a collection or set of events or configurations all of which are real or true. Usually the members or facets of the set may not be seen simultaneously, in fact it may be possible to view but one at a time. The task is to construct the set as an entity from knowledge of the attributes of its various facets. This is not the same as generalization.

EXAMPLE: Quantum reality. The nature of fundamental particles seems to depend on how they are observed. Each mode of observation results in a different aspect or facet of the particles (e.g. wave and particle). All are true but what is the "defaceted" structure?

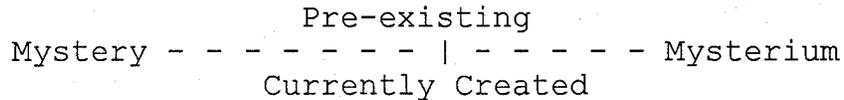
EXAMPLE: Altered states of consciousness. There appear to be several states of consciousness only one of which can be present at one time. Can we construct **Consciousness** from the attributes of the various states or facets?

The "ur-problem" often is to determine whether we are dealing with a mystery or a mysterium.

EXAMPLE: Afterlife. Is there life after death, if so is it a mystery or a mysterium? Is there one true situation or are there many depending on ...? Is it decided or constructed?

EXAMPLE: Theology. Is the subject matter of theology a mystery or a mysterium?

When we are dealing with a mystery there is decision, selection, and exploration. When we are dealing with a mysterium there is construction, creation, and invention. Ultimately the quadric:



THE DYNAMIC OF MYSTERY

There is allure in the case of mysteries. This arises from the challenge to establish which possibility is the correct one. An example of this is again the Great Pyramid at Gizeh. It is assumed that the builders had a particular design in mind, but there are so many mathematically consistent designs that fit or nearly fit the actual pyramid that we cannot decide which, if any, the builders had in mind. Uncertainty and unanswerability, therefore mystery, allure, and challenge.

Another example is the set of Friedman models of the universe. In these models the task is to decide whether the curvature of space-time is positive, negative, or zero. The actual universe appears to be very near zero, i.e. near a value such that it is very difficult to identify whether the actual curvature lies above, below, or at zero.

In both of these cases, it is assumed that only one of the possibilities is correct. The intriguing part is that there is so little difference between the "real" value and the values of the alternatives. It is this latter attribute, the difficulty of making the determination, that creates the mystery. Thus a mystery is a) many things and b) difficulty in deciding which one is correct.

Why do mysteries occur? Why do so many systems occur within a cluster of alternate possible values? There seems to be some propensity for a system to seek a region of high density in similarity space. Is this because there exist many viable alternatives near at hand and if one is blocked another is readily available. We might surmise a theorem: **The cutting edge of a viable system seeks a region rich in alternatives**, affording maximum choice, maximum option space. We could then say, for example, that the universe evolves so as to maximize its options, and the universe evolves so as to maximize its

potential. A similar, and possibly related theorem, would state that action occurs at the interface between different regions, especially regions of different density (frequency). It seems that new systems emerge in the interstices. (Where there possibly exist beats)

But sometimes we convert a mysterium into a mystery by imposing the imperative of decidability, the monistic constraint that only one member of the set is "true", replacing the set of actual truths. We do this because we feel uncomfortable with alternatives, with ambiguity, with complexity.

We may assert apodictically that Creation is a Mysterium. And it must be emphasized that: **Mysteria and orthodoxy are incompatible. In mysteria there are no heresies.**

The Three Churches

Some two weeks before Passover in the year 29 of the Common Era, Jesus and his disciples began what was to be the final journey from Galilee to Jerusalem. On the way Jesus withdrew from the group and taking with him Peter, James, and John ascended to the summit of Mount Tabor to pray. There a most remarkable event occurred, as was later related by the Evangelist:

And as he prayed, the fashion of his countenance was altered, and his raiment was white and glistening.

And, behold, there talked with him two men, which were Moses and Elias:

Who appeared in glory, and spake of his decease which he should accomplish at Jerusalem.

But Peter and they that were with him were heavy with sleep: and when they were awake, they saw his glory, and the two men that stood with him.

And it came to pass, as they departed from him, Peter said unto Jesus, Master, it is good for us to be here: and let us make three tabernacles; one for thee, and one for Moses, and one for Elias: not knowing what he said.

While he thus spake, there came a cloud, and overshadowed them: and they feared as they entered into the cloud.

And there came a voice out of the cloud, saying, This is my beloved Son: hear him.

And when the voice was past, Jesus was found alone. And they kept it close, and told no man in those days any of those things which they had seen.

Luke 9:29-36

Tradition records that each of the three disciples who accompanied Jesus to the Holy Mountain instituted a church. The Church of St. Peter was the visible church. Scripture tells that Jesus charged Peter to "feed my sheep" (Matthew 16:18). The Church of St. John was the mystical church. John records that Jesus said, "He that believeth on me, the works that I do shall he do also; and greater works than these shall he do" (John 14:12). And further, "Ye shall know the truth and the truth shall make you free" (John 8:32). And finally the Church

44

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08/26/94

of St. James which was the church of martyrdom. The church of those who, like James, would give their lives for their faith.

The ministry of Jesus to this time had been the outer ministry, the ministry of teaching, the ministry of healing. Here on the mountain was revealed the second or hidden teaching, revealed to those who could comprehend. But now the time had come to complete the ministry, to continue on to Jerusalem, on to Golgotha and martyrdom.

And so it was that Jesus instituted three churches, one through his teaching, one through his life, and one through his sacrifice. And from baptism we may become members of each church: the visible church of human brotherhood, the mystical church of the spirit, and the ineffable church of silence.

A charge was laid to each church: To the outer church of St. Peter, the spreading of the Gospel. To the inner church of St. John, the deepening of the Gospel, and to the hidden church of St. James, the energizing of the Gospel.

The trinitarian nature of the church has long been recognized and has been given many names, such as: the Church Militant, the Church Expectant, and the Church Triumphant. Before the Edict of Constantine in 313CE, legitimizing the church throughout the Roman Empire, Christians were very aware of the threefold nature of the Church. After the politicalization of the church, the outer or admisistrative church gradually drove the other two into oblivion.

All of this occurred at a time when a mighty empire was conquering, urbanizing, and homogenizing the world. It was inevitable that the practices and concepts of this empire would bend and modify whatever was introduced within its dominion. Gibbon said regarding Rome, "The various modes of worship which prevailed in the Roman world were all considered by the people to be equally true, by the philosophers to be equally false, and by the magistrates to be equally useful". But apparently the new mode of worship introduced by the followers of Jesus was not deemed equally useful by the magistrates. It was regarded as a threat and a series of persecutions against it were launched. The effect was to release the great power implicit in the Church of Sacrifice.

J

4CHURCHS.W52

DISK:THEO

April 4, 1994

THE FOUR CHURCHES

Quotations on the Transfiguration on Jesus to Peter, Keys and Feed my sheep *Matt 16:18-19*

Jesus recognized that not all people are in the same place in understanding or in spiritual development. He spoke one way to the multitude, he sent out the seventy, he gave deeper instruction to the twelve, and he had an inner circle of three: Peter, James, and John, to whom he gave special charges.

To Peter he gave "the keys to the kingdom". Peter was to be the door keeper. His charge were those seeking to enter the kingdom. Jesus told him, "Feed my sheep"

John was the beloved disciple, Jesus' favorite, the one with the deepest understanding of what Jesus was about and who he was. John translated the specifics of Jesus ministry into the language of the mystic, for those with ears to hear.

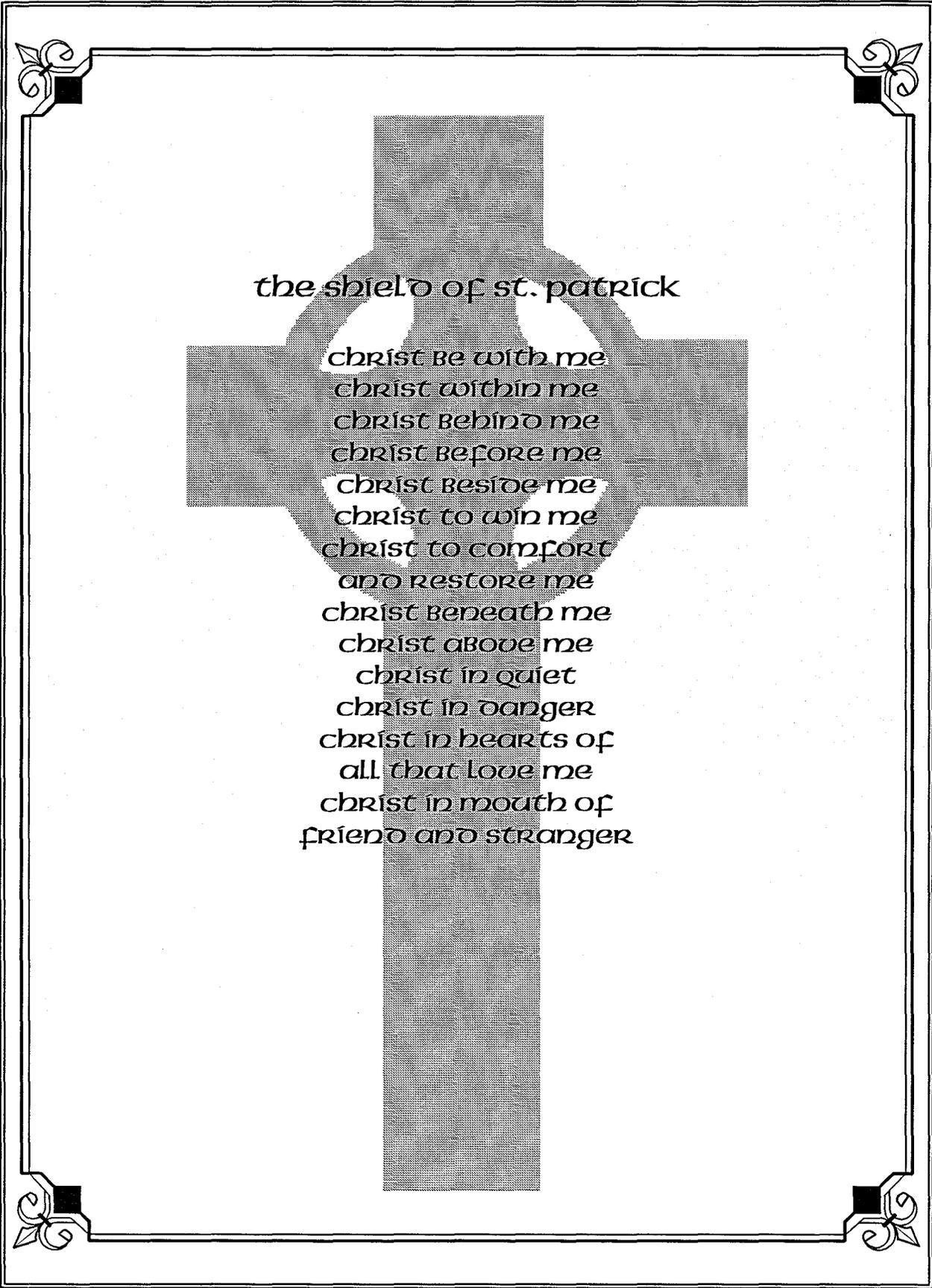
James was John's older brother and a "son of thunder". A man of courage and conviction. His zealousness early cost him his life. He was beheaded in Jerusalem by Herod Agrippa about 44 A.D.. (Acts 12:1-2)

Anticipating this, Jesus appeared to Saul on the road to Damascus and adopted him into the inner circle. This happened about 34 to 36 A.D., a few years before James' death. (Gal 2:9)

THE INTRO DUCED CHURCH

From Jesus' inner circle have come four churches: The Church of Saint Peter, the institutional church, both lay and monastic, the church of the sheep. From Saint Paul, the church of the intellect, the church of doctrine and dogma, and after St. Paul, such thinkers as Augustine of Hippo, Thomas Aquinas, ... and in modern times C.G. Jung and Joseph Campbell all contributed to this church. And from Saint John, the church of mysticism, the church of St. John of the Cross, Angelus Silesius, the Cloud of Unknowing, Meister Eckhart, ... And from St James, the church of the martyrs, those who went beyond all others in their devotion to their Lord. And perhaps it is fair to say the church of ideas that have been martyred, gnosticism, pelagianism, The branches severed from the tree before they could bear fruit.

- | | | |
|--|-----------|--|
| The Church of the ^{Body} Sheep (Lamb) | St. Peter | The Institutional Church |
| The Church of the Mind | St. Paul | The ^{Doctrinal} Theological Church |
| The Church of the Spirit (Dove) | St. John | The Mystical Church |
| The Church of the _{Dead} Martyrs | St. James | The Sacrificial Church |
- That the others might live
Bodhisattva*



the shield of st. patrick

christ be with me
christ within me
christ behind me
christ before me
christ beside me
christ to win me
christ to comfort
and restore me
christ beneath me
christ above me
christ in quiet
christ in danger
christ in hearts of
all that love me
christ in mouth of
friend and stranger

Some Basic Theological Matters

I. Ontological Foundations

While our primary concern is with theological matters, there are certain ontological questions concerning levels of existence and non-existence and their implications that are preliminary for theological considerations. We have to know who we are before we can get a clear idea of who God is. Or the knowledge of both ourselves and God must be developed through a caduceus like process.

A. Omnism vs Monism

The question here involves inclusion, commonality, and the spectrum of levels of existence. We shall designate the inclusion of all that exists of whatever level, existence being the only commonality, as a plenum. If the additional commonalities of mutual coherence and consistency are conditions for inclusion, [in the sense of the tathagata Ratna Sambhava], then we shall designate the plenum an Omnism. If all that is included derives from a single source or is subject to a single authority or law, such a plenum will be called a monism. If human experiencability applies [in the sense of Kant's distinction of phenomena vs noumena], then such a plenum, because of the human imposed criteria of consistency, must be an Omnism. (although it may also be a monism)

B. Mysteries vs Mysteria

A mystery is an unknown with but one answer, a mysterium is an unknown with multiple answers, all true. The basic question here is whether we are experiencing one facet of a multi-faceted cosmos or a cosmos of only one facet. This matter bears on the localism or globalism of consistency, on paradox, and on whether human reason correctly operates with all experience.

beg. then to made

C. Zarathustrianism vs Universalism

The question here is a special case of an Omnism when there exists two or more sources or authorities. Is the cosmos a single universal ontolog or is its evolution subject to conflicting forces with the outcome undecided. This question bears on determinism vs open-endedness, the nature of will, the existence of evil, and the omnipotence of God.

A footnote here is that life, action, innovation, emergence all occur at interstices, at the cracks in the cosmic egg. This being so, the vitality of the world derives from and at the interface of Ahura Mazda and Ahriman.

The Greeks developed the four elements: Earth, Water, Air, and Fire, which we now recognize as the four states of matter: solid, liquid, gaseous and plasma. The Greeks also related the elements to the four essentials of physical life:

Symbol	Need
EARTH	FOOD
WATER	DRINK
AIR	BREATH
FIRE	WARMTH

The Egyptians were concerned with the four spiritual elements, the four essentials of spiritual life.

Symbol	Need
Lion	Initiation
Man (Aquarius)	Purification
Ox	Dedication, commitment
Eagle (Scorpion)	Metanoia, transformation, liberation

(The symbols are of Babylonian origin and represent the four fixed signs in the zodiac, and have become the symbols for the four evangelists.

LION	ST. MARK
MAN	ST. MATTHEW
OX	ST. LUKE
EAGLE	ST. JOHN

ON MYSTERIES

A mystery is that which with every exploration reveals new facets of its being. It is the many contained in the one. Its oneness is ineffable. Only in successive perceptions of its parts can a glimpse of its whole become possible.

The greatest mystery is the Mystery of Existence

The primary mysteries of all religions have been

The Mystery of Life

The Mystery of Death

The Jews added the mysteries of Beginnings and Endings, of Genesis and Eschatology.

Then came the Mystery of coming. Not of ending, but of eternal coming, the Mystery of the Messiah.

The Christians expressed these mysteries in the symbolism of the Christ.

Beginnings

The Incarnation

Death

The Crucifixion

Life

Baptism and The Resurrection

Eternal Coming

The Transfiguration

Endings

The Last Judgement

Later two more mysteries were added

Transformation

The Eucharist

The nature of God

The Trinity

The Great Secular Mysteries are: Space, Time, Number, Matter and Mind

II. Truth vs Validity

Being vs Becoming
 Subjective vs. Objective
 Experience vs. Belief
 Grace vs. Bootstrap (works)

III. The Caduceus

The Great Dialectic
 The Middle Way
 Job
 Buddhism
 Cosmic proportions
 Departure and Return

IV. The Created and the Yet to Be Created

The dyad is not God and Man, it is the already created and the yet to be created. The world is object. God and Man are subject. Our divinity is our creativity, our creativity is our divinity.

Is Brahma subject to his own laws?

V. Salvation and Enlightenment

Hesychasts and the Divine Light (cf Vajrayana)
 Phos Hilarion: the Light on Mount Tabor
 Liberation
 Deification of the World, the Bodhisattva
 Birthing and building of soul
 Gurdjieff vs. reincarnation

Theosis

VI. The Linear vs the Cyclical

Historical vs. intrinsic
 The ruler and the wheel

VII. The Archetypal and the Unique

The two Persian truths

Celtic Christianity

INTRODUCTION

In today's world suffused outwardly with violence, greed, and injustice, and inwardly with frustration, uncertainty, and hopelessness; where those claiming possession of the Gospel seem as lost as those without it; many are asking "What has Christianity lost?" *meaninglessness*

When we hear the story of the early church, about the faith that ignited the hearts of the first Christians, leading them boldly to sacrifice, trustingly into the uncertain future, and even joyfully into martyrdom, we can indeed ask, "What have we lost?" Where has that Love gone that once could overcome all fear and darkness?

Some have answered that today we are inoculated with such a weak dose of Christianity that we become totally immune to the real thing. Others maintain that the gospel of secularism has become so powerful that the secular has converted the church, instead of the other way.

While it is true that Darwin, Marx, Nietzsche, Freud, have all defeated the church on secular battlefields, none have made the slightest dent in the armor of the Gospel. It is the secularized church, not the Gospel, that has suffered defeat. This has led a stand up comedian to joke, "Everywhere people are leaving the church and going back to God."

In the search for lost Christianity and how the church became secularized, three trails offer promising clues. One is through the juxtaposition of Eastern Orthodoxy and the Western Church, from the differences we can track what is arbitrary, from the similarities we can track what is valid. A second trail is through turning to light what has been suppressed, aided by such discoveries as the Dead Sea Scrolls and the Gnostic gospels found at Nag Hamadi. A third trail is the trail of Celtic Christianity, a form of Christianity flourishing in the British Isles for centuries before the Pope sent his emissaries to subject it to Roman rule.

It is this third trail, Celtic Christianity, which I want to take tonight.

The White Egret who lives in the laguna has become my guru. I watch her patience, standing on one leg for long hours on end, not asleep, but intensely alert, awake, and in the present. When the fish moves then the egret strikes. The lack of motion is not the sign of inactivity, rather it is the preparation for activity. In our world of ubiquitous noisy activity, most of it has little significance. The fish is either scared away or is caught at great expense of energy. We have much to learn from the white egret.

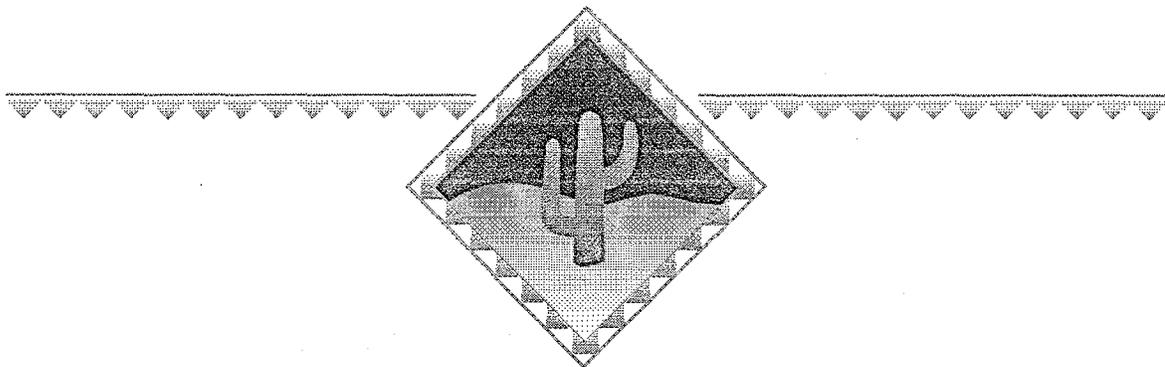


I sometimes speculate on whether the egret centuries ago observed the Buddha and adopted his wisdom, or the Buddha observed the egret and emulated her wisdom. Perhaps they both independently discovered the proper way to retrieve life's fish. And this perhaps was the source of the old adage: don't give someone a fish, teach them how to fish. Tell them to watch the egret.

EGRET.WP6

FONT: UNICORN 18pt

According to legend, centuries ago a Chinese monk saw
a white ^{crane} egret attack a snake. He imitated the egret's
movements and created tai chi chuan. - meditation
in motion.



The Night Chant

In beauty happily I walk
with beauty before me I walk
with beauty behind me I walk
with beauty below me I walk
with beauty above me I walk
with beauty all around me I walk
It is finished again in beauty
It is finished in beauty



Yahtah. WPG 09/26/94

FONT: President 24pt.

The Night Chant of the Navaho

NAVH
Navaho Blessed BeautyWay Prayer

Great Spirit, may we walk in Beauty.

May Beauty be above us so that we dream of Beauty.

May Beauty be in front of us so that we are led by Beauty.

May Beauty be to the left of us so that we may receive Beauty.

May Beauty be to the right of us so that we may give out Beauty.

May Beauty be behind us so that those who come after us may see Beauty.

May Beauty be inside us so that we might become Beauty.

Great Spirit, may we walk in Beauty.

as taught to Harley SwiftDeer Reagan
by Grandfather Tom Two Bears Wilson,
President of Navaho Native American Church

RELIGION POTPOURRI

Religions are basically rules for living plus arguments supportive of those rules. The rules are always about matters where there is choice, and primarily about matters governing the relationships between persons, i.e. matters of morals and ethics. However, there may also be rules governing one's behavior towards oneself, rules governing diet, cleanliness, ways of thinking, and any aspects of inner life that may lead toward wholeness. We might say that religions consist of sets of rules for

- 1) Making the individual whole
- 2) Making society workable
- 3) [and recently] Preserving the natural balances of the earth

But in addition to the rules themselves, there are the arguments given for obeying these rules. These arguments may consist of complex sets of sticks and carrots, based on

- 1) Elaborate ontological, theological and cosmological models
- 2) The teachings of recognized wise persons
- 3) Or that past experience shows that they work or do not work.

With regard to these supportive arguments, most religions, instead of modifying their models when something doesn't fit or work out, invent elaborate apologies to explain away the error and so preserve the model. This is one of the big differences between science and religion. Science is ever revising its models to fit experience. Religion is ever managing ^{manipulating} experience to fit its model.

There are two dangers here for religion (and for science.)

- 1) The limiting of experience to fit a given model, through ignoring, denying, and denouncing what does not fit, or through crafting an epistemology which will be favorable to the model and create an ontology exclusive of alternatives.

- 2) The rules may be quite valid, while the supporting arguments may be flawed. This situation may lead to the unjustified rejection of the rules, throwing the baby out with the bathwater.

ON MEN AND WOMEN

Woman is the personification of nature, and it is nature that teaches man, not man nature.

Helena Roerich 1937

Biology has made the female humanity's direct and immediate basic life support system. Except for a brief essential role the male is biologically rather superfluous. But among many species, including humans, the male provides the support system that sustains the basic support system. This is the primary function of the male in human systems, and what the male does beyond this is optional. But psychologically, the male is not content with this secondary role. He sometimes enlarges on it by creating innovative protective devices and comforts, he sometimes organizes it creating law and social structures, he sometimes adorns it with art, sometimes distorts it with games such as war.

cf. St. Joseph

In his psychological dissatisfaction, the male has created through exploration and development a tertiary world consisting of learning, technology, history, science, religion, etc. Sometimes this tertiary world contributes to the secondary world, sometimes it is neutral, and sometimes it is threatening and destructive.

In our times the primary world, the direct life support world, has become so routine and invisible as to be deprecated. Women must enter the secondary and tertiary worlds to have any status. Here we properly drop the biological terms, female and male, and go to the extended notions of feminine and masculine to describe behaviors in the secondary and tertiary worlds. While the terms feminine and masculine map to the first order onto female and male, they go way beyond to include trans-biological attributes that endow both sexes. It is now realized that with regard to the secondary and tertiary worlds gender is losing its meaning.

also over population

See 91-#19
91-#61
91-#16

MORE ON GRAVITATIONAL TIME

also 1995 #54

Since Aristotle our physical notions of time have been derived primarily from motion. This is true of Newton's contributions to the subject and also of Einstein's (up through special relativity). However, Newton's modification of Kepler's Third Law including the role of mass, introduced a notion of time based on the density of matter rather than derived from motion. Specifically,

$$\tau = \frac{2\pi R^{3/2}}{\sqrt{GM}} \quad \text{or} \quad \tau = \sqrt{\frac{3\pi}{G\rho}}$$

where τ is the time period associated with a domain of radius R and of mass M , (here assumed to be spherical), and ρ is the mean density within the domain, G being the gravitational constant. In these two equations motion is not explicitly present. The period of the "beat of the clock" is determined by the density of the system. This is a gravitational clock, time being manifested as a result of the presence of matter rather than the motion of matter.

The current Big Bang Theory of the origin of the universe, tells us that the universe came into being with a high density concentration of energy which immediately began to expand. Very quickly, through the appearance of particles, the universe acquired mass. While the size of the universe continues to increase, whether mass is bounded or still increasing is uncertain. In either event, the mean density seems to be decreasing. But before we can effectively discuss changes in size, mass, density, clock rate, etc. we have to be clear on the meaning of our units. The problem is like the problem of comparing purchasing power over the years in inflationary economics. One has to convert earlier dollars to today's dollars, today's wages, etc. in order to obtain meaningful comparisons.

If we assume that the fundamental physical constants, G , c , and h , are really constant, (G =Newton's gravitational constant, c =the velocity of light, h =Planck's constant), then we are provided with "absolute" units of extension, mass, and duration. Explicitly,

$$R_p = \sqrt{\frac{Gh}{c^3}}, \quad M_p = \sqrt{\frac{hc}{G}}, \quad T_p = \sqrt{\frac{Gh}{c^5}}$$

R_p , the unit of length has a cgs value of 4.051×10^{-33} cm

M_p , the unit of mass has a cgs value of 5.456×10^{-5} g

T_p , the unit of time has a cgs value of 1.351×10^{-43} sec

From these we can derive a unit of density, $\rho_p = \frac{c^5}{G^2 h}$
with a cgs value of 5.157×10^{93} g/cm³.

The Planck Particle is a quantum black hole
 See Harrison's Cosmology p 333

ibid p. 329

Unit of length = fermi = size of nucleon = 10^{-13} cm (= r_e ?)
 Unit of mass = nucleon = mass of proton = 10^{-23} g (= m_p)
 Unit of time = jiffy = $\frac{1 \text{ fermi}}{c} = 10^{-23}$ sec

Universe:	Size	10^{40} fermis	$10^{60} R_L$	all $S^{3/2}$
	Man	10^{80} nucleon	$10^{60} R_M$	
	Age	10^{40} jiffies	$10^{60} R_T$	

fermi = $10^{20} R_L$	probably $\sqrt{5} R_L$
nucleon = $10^{-18} R_M$	$1/\sqrt{5} R_M$
jiffy = $10^{20} R_T$	$\sqrt{5} R_T$

Hodges' evidence on
 the age of LED II

General Relativity employs "proper time", a universal

Local times may proceed at different rates
 allowing stellar evolution to take place at faster
 or dynamics

rates. (than proper time) Explaining why parts of the universe
 appear older than the whole.

It is a matter of $\frac{\text{local rates}}{\text{proper rates}}$

The general theory of relativity predicts that the rate at which a clock runs varies as the strength of the gravitational field at the location of the clock. The stronger the field, the slower the clock rate. An atom in a strong gravitational field, for example, will radiate at a lower frequency than the same atom in a weak field. This is manifested as the gravitational red shift. If we designate the period of time that increases with gravitational field strength by T , and the field M/R by Φ , then $T = T(\Phi)$ such that if Φ increases T will increase.

On the other hand the time that we designate by τ which is proportional to $\rho^{-1/2}$, varies as $R/\sqrt{\Phi}$, decreasing as Φ increases. If T is the basic period operating in a gravitational field of strength Φ , how is τ to be interpreted? What sort of time does τ measure? If atoms march to T , what marches to τ ? T may be a "bridge time" between photons and hadrons, while τ governs the time table for larger material bodies. *

The properties of both T and τ have been observationally confirmed. T through comparisons of clock rates at different terrestrial field strengths and τ through planetary and binary star motions. And from the above with one time increasing with field strength and the other decreasing, we must conclude that there are at least two independent kinds of time.

Recent observational determinations of Hubble's parameter have led to an age of the universe that is less than the age of oldest stars. This paradox possibly has its resolution in the existence of different times. In the region of star formation the density is large and therefore τ is small. If star formation marches to a local τ rather than to a global T , then as viewed locally, there would be ample time for the evolution of the stars, even though the observer's clock suggests a paradox. The entire matter hinges on the proper interpretation of the time τ .

In absolute units

$$\tau \approx T_p !$$

$T =$

Times converge at P

diverge from P

Resonance?

is the decrease of the Kepler (Schuster, Density) time τ solely attributable to the dilatation of the unit of time, T as $\Phi \uparrow + \rho \uparrow$? Or are both effects independent? Or what is their functional relation?

* How is the transition from quantum ontology to meso ontology involved?

$$\begin{array}{lll} \Phi = \frac{M}{R} & \text{as } \Phi \uparrow & T \text{ dilates} \\ \rho = \frac{M}{R^3} & \text{as } \rho \uparrow & \tau \text{ shortens} \end{array}$$

It would be strange to say,
my hand is 20 years old, my ears are 10 years old,
my legs are 15 years old ... etc.

The parts of our body are all the same age.
But are we correct in projecting the likeness
to our body onto the universe?

The data (Hodge) from HoII indicates that
some galaxies are of different ages - we know this
is also true for stars.

Our problem is with a part being older than
the whole. But relations between part + wholes
for the universe may not be analogous to those
of the more familiar, such as our bodies.

It is not necessarily strange to say,

My mind is 20 years old, my body is 60 years
old (\Rightarrow I'm immature), my gonads are 16 years
old (\Rightarrow I'm sexually active), or I am an old soul ...
Here parts + wholes have a freer relationship.
Maybe the universe is like this.

Certainly we have the experience of the variation
of subjective time with clock time. \Rightarrow 2 times
with not only different rates, but at least one of which
has a variable rate. The rate at which subjective
time runs ^{with respect to the other} seems to be related to consciousness
or better, awareness, Yogi's can stop to second hand
of a clock with intense awareness. (i.e. the unit
of subjective time becomes so short that a second
becomes an age). Do we have something analogous
in T and τ ? Level of energy rather than awareness.

[awareness \Rightarrow higher energy]

SECESSION 1994 STYLE

It used to be, whether the duly elected president of the United States was a Democrat or a Republican, he was the president of the entire country and of all the people. Now we have Representative Armev (R, Texas) referring to the president of the United States as "your president", and senatorial candidate Oliver North (R, Virginia) saying the president of the United States, "is not my commander in chief". What are we hearing here? Are these men telling us that they have renounced their American citizenship or that like Texans and Virginians^{So we're seceding} in 1860, announcing that they are seceding from the Union?

The common factor here is not the South, it is the Republican Party. The Party of Lincoln which 130 years ago led the struggle to preserve the union now seems intent on leading a struggle to obstruct and fragment the union. These Republicans sound much more like Jeff Davis than like Lincoln. Because they do not like the incumbent president's policies, these Republicans no longer regard the duly elected president of the United States as their president. When Armev, North, and others abjure the president instead of just opposing his policies, we have reached the level of mentality that led to secession in 1860. "If we can't have it our way, then we'll take you down". If they have already mentally seceded from the union, these men have no business being in the House of Representatives or in running for the senate.

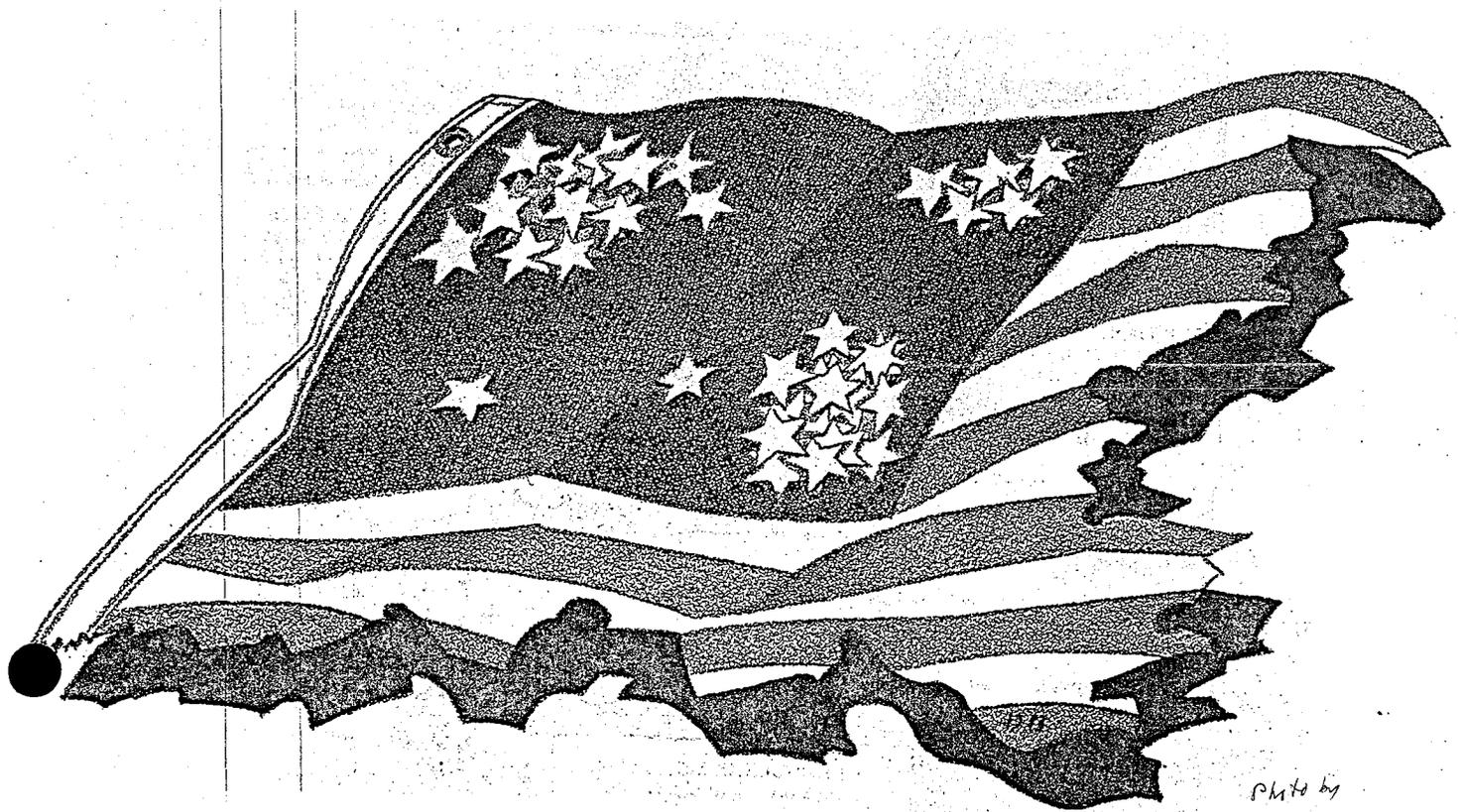


PHOTO BY
D.B. JOHNSON/LOS ANGELES TIMES SYNDICATE

This same Army in April 2000
felt He would dismantle the Justice Dept
before dismantling Microsoft.

Musolini would have loved this guy

A Call for Signification

This is a call for you to articulate and evaluate the most significant things that your life has thus far taught you. What in your personal first hand experience has impressed you as being the most important lessons of your life? What has life given you, what has it taken from you, where stands the balance? What do you now feel sure of, what remains uncertain? What is resolved, what remains unresolved? What are your deepest satisfactions, your deepest concerns? Forget the conventional answers, the conventional creeds, the conventional issues. Find your own uniqueness, find where you are, and perhaps get a glimpse of who you are.

This is not an exercise for those facing death, it is an exercise for those facing life. The ancient sage said that an unexamined life was not worth

living, but gave us no guide lines for examining life. That is at it should be. Each must develop his/her own guide lines, do their own significations. You may not be the final judge, but you should be the primary judge of your life. We avoid our responsibilities when we delegate judgement to some yet to come final judge.

As for signification: On the biological level it is concerned with pain and pleasure, on the psychological level with what is of interest and of no interest, on the societal level with what is important and unimportant, on the material level with what works and what doesn't work, on the cultural level with what is factual and fictitious, on the spiritual level with what is valid (transforming) and invalid (imprisoning), and on the cosmic level with what is True.

Sometimes I feel it fun to release the Walter Mitty in me and exercise my imagination in impossible but enjoyable fantasies. My Walter Mitty frequently finds himself in situations where he is called upon to make speeches of important historical consequence, addressing parliaments, congresses, mass movements,... Rewriting history, what I would have said had I been present at Whitby in 664, at Philadelphia in 1776, at Appomattox in 1865, etc. Here is an example of a recent fantasy:

It is the White House, a state dinner in which the Queen of England is present and I am called upon to make a toast.

Mr.President, Your Royal Highness, Ladies and Gentlemen, A few years ago I attended a festival celebrating our British inheritance. The Pastor in his opening invocation, asked for God to "bless George our president and bless Elizabeth our queen". This struck a liberating note with me. I suddenly felt that something that had been divisive in me had been removed. I felt I could accept without conflict, the identifications that I really felt in my heart of hearts. While George was indeed our president, it was also true Elizabeth was our queen. While not our constitutional queen, not on the law books, not in the history books, but in our affections and in the wholeness of our hearts, she was indeed our queen. We Americans declared our political independence from the motherland, but we never declared nor can we ever declare independence from our heritage. Our hearts and our affections are forever bound to our heritage--to our entire history. This is why today, although having no constitutional queen, we still have a queen. She is our queen in our affections and in our identification with our heritage. And so, ladies and gentlemen, may I propose a toast to Her Royal Highness, Elizabeth, OUR Queen.

MITTY. WPG

10/23/94

A SIGNIFICATION MANIFESTO

A signifier is one who tells you what is important, what you should focus on and what you should ignore. Besides politicians, advertisers and some professors, the most influential signifiers in our society are TV anchor persons. While they may not control all our opinions and votes, they do control us on a deeper level by signifying the issues that engage us and the matters with which we must be concerned. This manifesto is a call for liberation of signification, a call for each of us to become our own signifier, to stop delegating one of the most important functions in our lives to others, to assume the responsibility for our own selections.

To liberate signification we must live examined lives, and understand what we believe in and why. As signifiers we should articulate and evaluate what life has taught us, what in our personal, first hand experience has impressed us as meaningful and worthy. We must ask ourselves what we are sure of, what remains uncertain, what is resolved, what is unresolved, what is still open, what is complete, what life has given, what it has taken. We must transcend the conventional answers and conventional creeds, we must find answers and creeds that

are truly our own. We must explore our own uniqueness, locate where we are, and perhaps get a glimpse of who we are.

In the past this may have only been regarded as an assignment for those facing death, but now it has become necessary for those facing life. While we may not be the final judge of our lives, we must be current judges of our decisions and choices. We support irresponsibility if we delegate all evaluations to some yet-to-come final judgement.

On a practical level, this manifesto is a call to compile your own operating manual for your life. It is a call to assemble and order what your experience has taught you is painful or rewarding, interesting or boring, important or unimportant, works or doesn't work, is factual or fictitious, valid (^{empowering}transforming) or invalid (imprisoning), and finally, what you feel you can hold as True. It asks that you collect the stories, aphorisms, ideas, events, pictures, poems, equations, and biographies that have liberated and inspired you. This is your personal collection, for you are unique and it is your specialness that makes you precious to God and to all who know you.

Signatures, WP6 10/30/94

HUMANITY'S COSMIC ROLE

One of the principal challenges of the present time is to discover, generate, and validate alternate modes of work, community, education, and individual development. In order to generate alternatives we must reexamine many of humanity's deepest and oldest core beliefs, beliefs that in shaping, our ideas of ourselves and the world have shaped our destiny. The periodic examination of core beliefs is an essential part of humanity's search to discover its cosmic role. This is an on going search that began before the first tool was fashioned or the first poem was sung. In this search we are called to identify and protect that which nurtures life and humanity, identify and restructure that which can be adapted to the service of life and humanity, and identify and dismantle that which threatens life and humanity. Although this search

has led to plateaus of attainment where mankind paused for reintegration, there may never be a final summit. If not, dedication to an unending search is not the entrance to some Sisyphean hell, but rather the discovery of that blend of confidence and humility that tunes our own pulse to the pulse of the universe. Ultimately, in the process of searching for its cosmic role, humanity will have created one—the role of searcher. This role is certainly dignified enough and challenging enough for mankind until its true role be found. The role of searcher is indeed dignified enough and challenging enough for all time if no other role is ever found.

from the EOMEGA COVENANT,
1969

ZOCOVAMP6

11/08/94

Subj: Re: On the purpose of purpose
Date: 94-11-05 02:40:24 EST
From: BradKa ?

While absolute proof of our having a purpose is absent there are some interesting facts here. First, the need for a purpose is not limited to one culture but is in fact cross culturally present. Mankind may not have an ultimate purpose but we do seem to almost universally want one. This may be driven by biology and evolution: Men (and women) who feel a need to have a "purpose" to life will arguably strive harder to create things that are justified by more than their immediate survival value to an individual or group. Ironically, many of these items may evolve to have significant long term survival enhancement to those who are able within a given group to use them, and thus have an evolutionary (survival) leg-up on those who don't e.g. star gazing encouraged mathematics which led to a host of survival advantages to the cultures which developed it. Secondly, it is the need to be purposeful that is at the heart of dedicated work and it is dedicated work that has given one competing set of humans advantage over another. Those that dawdled around ancient campfires complacent with their current day's kill were not as likely to be well equipped to meet the challenges of a changing environment as those who were constantly wondering what they should be doing to ensure the well being of themselves and their offspring. This wondering was the germ of "purpose" and without it mankind would not have developed far above our other primate relatives. Thirdly, there is the anthropomorphic argument that our "purpose" is intrinsically wrapped up in the inevitable evolution of an improbable universe. We are not apart from the universe but part and parcel of it. Our evolution is as natural as anything else that goes on here. In so far as the universe almost seems to be geared to produce life, is it not a natural question to ask why this should be? Many physicists currently believe that "natural" laws had to be extremely well balanced to produce the universe as we know it, and how unlikely this may have been, but that once these laws were in place that they almost guaranteed life would evolve in some form, somewhere in it. If this is the case, is it not understandable to wonder what the purpose of life and the universe is? I think so.

Subj: Re: On the purpose of purpose
Date: 94-11-05 18:29:59 EST
From: Mlemonick 2
1

I think you misunderstand the anthropic principle. It isn't that this configuration of physical laws is any more unlikely than any other. Any given configuration is highly unlikely, given the infinite number of possible ones. It's just that this one happened to give rise to beings who have asked the question. Which gives the ILLUSION that it's somehow a special universe. As for feeling a need for purpose, I can understand needing a purpose in relation to humanity.. But not in relation to the universe, which I am convinced is utterly indifferent to us

Subj: Response to Mlemonick
Date: 94-11-06 01:07:30 EST
From: BradKa

You are right about the anthropic principle to the extent that I misquoted it. I read alot of things but make no claim to be a diciple of any particular science. In this case my memory confused this principle with it's antithesis, the argument that the universe is indeed a special place and that man may have a special place in it. Mind you, I fully realize that the operative word is MAY. We currently have no way of knowing and in fact may never have a way of knowing what exists outside our universe and it's laws. What state existed prior to the Big Bang? Where did it come from? Was it a singular state or one in an endless succession of such states? Is this a manifestation of God? Etc., etc., etc.... Hard physics meets metaphysics because it has no place left to go. The anthropic principle makes a hefty assumption when it asserts that our uniqueness may be little more than our biased observations of the cosmos and that we may only be a part of one of many other real universes. The theory that there may be zillions of other universes is grounded in no scientific observation. So far as we actually know this is the only universe there is and the laws that govern it are unique and suited to the purpose of evolving life. This may indeed be a special place with a special meaning. Or maybe not. I like to think that this is at least a possibility. Why not entertain this thought a little, perhaps the universe won't seem so indifferent to us to you, as a whole, if not individually.

On Values and Beliefs

A time will come when people will give up in practice those values about which they no longer have any intellectual conviction.... There are a certain number of moral tenets about the dignity of the human person, human rights, human equality, freedom, law, mutual respect and tolerance, the unity of mankind and the ideal of peace among men on which democracy presupposes common consent; without a general, firm, and reasoned-out conviction concerning such tenets, democracy cannot survive.

(Jacques Maritain, *On the Use of Philosophy*)

Maritain's caveat asserts that human values, (and therefore much of human behavior), ultimately rest upon reasoned-out conviction of their validity, and values without such intellectual support will erode and fall into desuetude. Granting the necessity of reasoned intellectual conviction, the question remains, is such conviction sufficient? Are not other pillars of support--empirical, traditional, authoritative, numbers of adherents...-- also required? Further, it must be emphasized that intellectual conviction does not consist of reason, that is logic, alone. There are other bases for intellectual conviction. Perhaps more important than reasoned support is that the pillars of support be in agreement. It may well be that agreement of other supports may sustain a value system even without the presence of reasoned conviction. If what has been said about values may be extended to beliefs in general, then to continue to survive any belief system must rest on intellectual conviction. Where such conviction is lacking or is in conflict with other evidence, the belief system sooner or later collapses.

The degradation of both values and beliefs in our times is basically attributable to conflict between pillars of support, this more than lack of a sound logical edifice. Scientific evidence conflicts with traditional teaching, authority speaks counter to feeling, experience fails to correspond to revelation, dogma is at odds with intuition.

At this point we may naturally return and question the necessity of reasoned conviction. If the other pillars of support are not contradictory, then may not values and beliefs be sustained even in the absence of a logical foundation? Ultimately our object of investigation is, what do humans require to sustain their axiological constructs. Perhaps no one support pillar, even reasoned conviction, is adequate. What is required is two or three supports that are in agreement.

~~ALBERT WPG~~

11/10/94

See Also 95-#33
95-#23
97-#5
93-#17
93-F9

ON MESSAGE AND MESSENGER

At some time near the end of the first century B.C.E., sculptured Buddha images closely resembling Greek sculpture came to be made in the Gandhara region in Northwest India. These were influenced by Hellenistic culture, and possibly inspired by an earlier Indian tradition of Buddhist imagery. At about the same time, more characteristically Indian images of Buddhas and bodhisattvas were being created in the Mathura region. Such sculptures, appearing more or less contemporaneously with Mahayana, indicate a trend toward deification of the Buddha, who began to take on the aspect of a transcendental being of which the historical Shakyamuni had been only an earthly manifestation.

Among the earliest Mahayana sutras is one, written around the time that the Buddhist sculpture of Gandhara was being made, describing practices by which the bodhisattva practitioner could cause Amida Buddha to manifest. The sutra describes these meditations in conjunction with the creation of Buddha-images. Such images seem to have been closely linked with worship ritual, including internal visualization of a Buddha. The concept of Buddhas as anthropomorphic objects of worship thus stimulated the development of ritual forms of worship, and Mahayana incorporated Brahmanic religious ritual formats myths, and mystic disciplines into its own growing devotional practice.

(Shingon--T.Yamasaki p7)

We have here evidence from India of the Greek imperative to anthropomorphize concepts and deify individuals. The primary manifestation of this tendency was of course the Olympic Pantheon and the ensuing body of Greek myth. There is little question that it was this Greek approach, the anthropomorphizing of doctrine and the deifying of teachers, that resulted in the theology of the Christian church. The parallel of what happened to the Shakyamuni Buddha and to Jesus of Nazareth in this matter of deification has overshadowed the many important parallels in their teachings. However, it is the parallels in the teachings that provide affirmation of their validity, rather than their being the revelations of deities. But the great majority (not only Greeks) demand validation of doctrine be based on authority supported by signs, miracles, and an origin which is on high. It takes maturity to accept multiple empirical demonstrations for validation, and it requires wisdom to understand that it is the message, not the messenger, which is the essence, to understand that the deity resides in the teachings, that is in the Word, not in the teacher.

Geopub

Divinity resides in the Message - not in the messenger

B. Histl. WPG

11/16/94

68

PHILOSOPHY Some Philosophic Terms

Atomism. The universe consists of tiny, indivisible units called atoms.

Determinism. All events are the inevitable result of existing conditions. Free will is an illusion.

Dualism. The universe is basically composed of two elements, matter and mind.

Empiricism. All knowledge is derived from experience by way of sense perceptions.

Epicureanism. This school of philosophy taught that the supreme good in human life is happiness or pleasure.

Epistemology ways of knowing
Existentialism. Based on the writings of Soren Kierkegaard, this family of philosophies teaches that humans create their own existence by choices and actions.
See Rvni p 102

Hedonism. The pursuit and enjoyment of pleasure is life's main goal.

Idealism. Reality is essentially mental or spiritual. The material world is a lesser order of reality.

Intuitionism. Knowledge of reality is gained through the immediate apprehension of self-evident truths.
x recognition

Materialism. Reality consists essentially of physical substances.

Mechanism. The processes of nature--animate and inanimate--are machine like; the functioning and behavior of biological organisms are mechanical.

Monism. The universe is composed of only one substance, whether matter or mind.

Naturalism. Because objects in nature are regular and not haphazard, they are all subject to a scientific explanation.

Ontology. Nearly synonymous with metaphysics, the term refers to a deductive way of understanding.
*no
Being, existence, reality*

Phenomenology. The world's phenomena can be investigated and understood without having to form prior explanations of reality. By exploring examples, one can arrive at conclusions about underlying structures.

Pluralism. The universe cannot be explained on the basis of one substance. It consists of two or more, such as matter and mind.

Positivism. The principles and methods of science should be used to guide individual behavior and to solve social problems. *no*

Pragmatism. The meaning and truth of an idea are tested by practical consequences.

Rationalism. Truth and knowledge are gained by reason rather than by experience or perception.

Realism (the name for two separate doctrines).
1. General ideas are not merely terms but refer to real things.
2. Material objects exist independently of any knowledge or perception of them.

Scholasticism. Late medieval philosophy taught by university professors, or Schoolmen, was given this name.

Skepticism. All philosophical assumptions can be challenged on the ground that it is impossible to prove that there can be any real knowledge of the world.

Sophist. The term means "sage," but it was applied specifically to teachers of wisdom who charged for their lessons.

Stoicism. Through reason it is possible to view the world as rational. In regulating one's life, the individual learns to accept what happens with a tranquil mind. In everything, duty to society is performed.

Transcendentalism. Humans are intuitively aware of a reality beyond sensory phenomena.

Utilitarianism. Social actions are valid if they promote the greatest good for the greatest number. Consequences are therefore more significant than motive.

PHI-TERM.WP6

11/21/94

Downloaded

VOLUME TO SURFACE RATIOS

Three dimensional solids, such as spheres, cylinders, cones, pyramids, etc. may be characterized by their volume/surface ratio. For three dimensional figures, this ratio has the dimensionality of length. The ratio can be made dimensionless by multiplying the value of the surface by a size parameter which is some characteristic length, A, associated with the solid. The quantity V/(SA) then becomes a pure number, size independent, which characterizes the shape of the solid.

In the case of a square based pyramid, we have

$$V = \frac{B^2 H}{3} \quad \text{and} \quad S = 4 \frac{AB}{2} + B^2$$

where V is the volume, S the surface area, H the height of the pyramid, B the length of a side of the base, and A is the apothem of a triangular face. If x is the angle between the apothem and the plane of the base, then

$$B = 2A \cos(x) \quad \text{and} \quad H = A \sin(x)$$

Substituting, we have

$$V = \frac{4}{3} A^3 \cos^2(x) \sin(x) \quad \text{and} \quad S = 4A^2 \cos(x) + 4A^2 \cos^2(x)$$

Giving

$$\frac{V}{SA} = \frac{\cos(x) \sin(x)}{3(\cos(x) + 1)}$$

The left member is a dimensionless, size independent function which is seen to be equal to a "shape function" based on the independent parameter x. We shall designate the shape function, whose value depends on the apothem-base angle, by f(x).

$$f(x) = \frac{\cos(x) \sin(x)}{\cos(x) + 1}$$

To find the maximum value of the function f(x), we set its derivative equal to zero.

$$\frac{df(x)}{dx} = \frac{\cos^3(x) + 2\cos^2(x) - 1}{(\cos(x) + 1)^2} = 0$$

To solve this equation we must first find the roots of the cubic equation

$$y^3 + 2y^2 - 1 = 0$$

The roots are

$$\begin{aligned} y &= -1.618034\dots \\ y &= -1 \\ y &= 0.618034\dots \end{aligned}$$

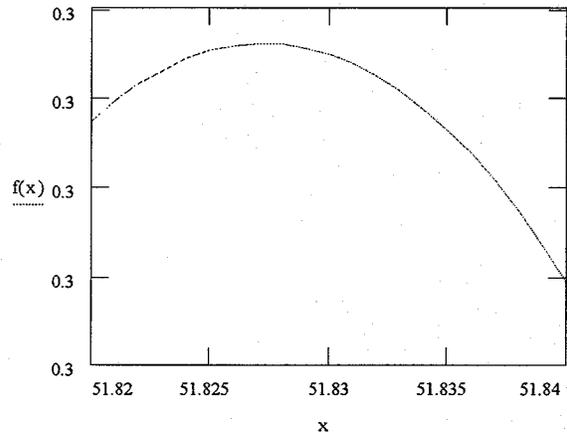
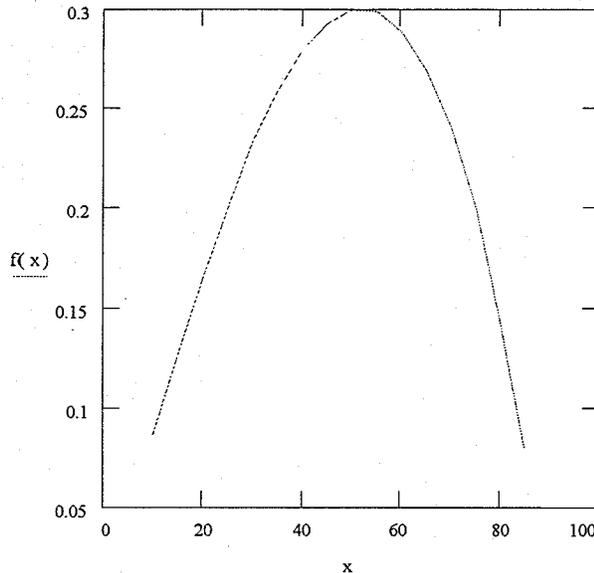
$x = \arccos(y)$ has no solution for $y = -1.618034\dots$

$x = 180$ degrees is the solution for $y = -1$

and

$x = 51.827292$ deg is the solution for $y = 0.618034\dots$

For values of x in the meaningful range 0 to 90 degrees, the function $f(x)$ is ~~infinite~~ ^{finite} at both ends of the range and takes on a maximum value at $51.827292 = 51^\circ 49' 38.25''$.



There are two interesting results of this approach to solids in the case of square pyramids. The first is that the "optimum", or in this case maximum, value of the shape function occurs when the ratio of the apothem to the half-base is equal to the Golden Section. The second result is that to within a minute or two of arc, the Great Pyramid at Gizeh has been measured to have this same base-apothem angle. [The best measurements give a value of $51.85 \pm .01$ degrees, off from the above value by about $1.2' \pm .6'$ arc. or off about .3 inch in a radius of 100ft.] We conclude that the Great Pyramid has the shape for a square based pyramid that gives the maximum volume for a given surface or the the minimum surface for a given volume.

This result can be generalized to all regular pyramids and cones

The geometric figure with maximum volume for a given surface is a sphere.

What is the figure with minimum volume for a given surface area?

This will be a two sided flat disk.

Sphere

$$\text{Vol} = \frac{4}{3} \pi R^3$$

$$S = 4 \pi R^2$$

$$\text{rad} = R$$

DISK

$$V = 0$$

$$S = 4 \pi R^2, \text{ area of face} = 2 \pi R^2$$

$$\text{rad} = \sqrt{2} R$$

$$\text{radius} \cdot \pi r^2 = 2 \pi R^2$$

$$\text{or } r = \sqrt{2} R$$