

2004

SCRAPS

2004

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Alphabetically

Name	Size	Type	Last Modified
20CENTRY	6,148	WordPerfect 11 Document	2/28/04 6:33 PM
ALTERN1	6,101	WordPerfect 11 Document	5/10/04 3:09 PM
ANOMPHEN	7,075	WordPerfect 11 Document	5/4/04 11:41 AM
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BELLRMBD	6,867	WordPerfect 11 Document	9/24/04 8:54 PM
BELLTABL	14KB	WordPerfect 11 Document	9/26/04 9:06 PM
BILLTR1	5,608	WordPerfect 11 Document	6/21/04 11:25 AM
COGSTYLE	3,527	WordPerfect 11 Document	7/11/04 9:14 AM
CULTCAR2	8,522	WordPerfect 11 Document	3/23/04 11:26 AM
DaVinci	12KB	WordPerfect 11 Document	7/1/04 9:13 AM
DIASYN01	9,393	WordPerfect 11 Document	6/6/04 5:48 PM
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FIBON3	17KB	Mathcad Document	1/7/04 10:22 AM
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Plkforce	20KB	WordPerfect 11 Document	3/16/04 1:21 PM
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QUILIN	6,102	WordPerfect 11 Document	6/15/04 6:14 PM
QUILIN2	6,130	WordPerfect 11 Document	6/15/04 6:16 PM
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SACSPACE
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SCRAPS 2004

1. APHISTRY.WPD	04/01/02	SOME APHORISMS RE HISTORY
2. RAMFORM.WPE	04/01/01	RE RAMANUJAN NUMBERS
3. RAMAN1.MCD	04/01/04	RAMANUJAN NUMBERS
4. FIBON1.MCD	04/01/04	FIBONACCI NUMBERS
5. EVOSTEP.WPD	04/01/05	THE DISCRETENESS OF CHANGE
6. FIBON2.MCD	04/01/06	A SUBSET OF FIBONACCI NUMBERS
7. FIBON3.MCD	04/01/07	2 ND SUBSET OF FIBONACCI NUMBERS
8. RAMRHOMB.WPD	04/01/08	RHOMBOID OF RAMANUJAN NUMBERS
9. CULTCAR2.WPD	04/01/25	THE CURRENT AMERICAN CULTURE
10.Da Vinci.WPD	04/01/30	WISDOM OF LEONARDO da VINCI
11.EINDREAM.WPD	04/02/05	A DREAM Lunch with Einstein
12.FIBRAM1.WPD	04/02/13	NOTES ON FIBONACCI NUMBERS
13.ZEROTIME.MCD	04/02/14	COSMIC CALCULATION FROMULAE
14.20CENTRY.WPD	04/02/28	PROGRESS IN THE 20 TH CENTURY
15.GRAFFSPEE.WPD	04/02/28	THE WARRIORS' CODE
16.PLKFORCE.WPD	04/03/01	THE PLANCK FORCE
17.STAN.WPD	04/03/07	STANLEY M. GREENFIELD, IN MEMORIAM
18.LAWSCHNG.WPD	04/03/09	OVERVIEW of LAWS of CHANGE
19.SEED0401.WPD	04/03/11	SEED: BRAHMA, SOCIALISM
20.PLANETS3.WPD	04/03/15	VARIETY IN EXTINCTIONS
21.JUSTICE.WPD	04/03/18	WHAT IS MEANT BY JUSTICE?
22.JUSTICE2.WPD	04/03/18	WHAT IS MEANT BY JUSTICE PART II
23.THUGHTS.WPD	04/03/20	SOME THOUGHTS ABOUT OUR LIMITS
24.SACPLACE.WPD	04/04/23	THOUGHTS IN A SACRED PLACE
25.ORTHMAN2.WPD	04/04/25	AN ORTHOGONAL MANIFESTO
26.ANONPHEN.WPD	04/05/03	ANOMALOUS PHENOMENA
27.ONTOLOG.WPD	04/05/05	WHEELER, WHITEHEAD, WIGNER
28.QUILIN.WPD	04/05/06	WISDOM OF LI KIANG
29.ALTERN1.WPD	04/05/10	WISDOM OF PAUL FEYERABEND
30.HOMOSAP.WPD	04/05/11	HOMO SAPIENS SAPIENS
31.PARADOX1.WPD	04/05/21	THE US/THEM PARADOX
32.KRASNK70.WPD	04/05/23	ANNIVERSARY 70
33.LAWS2.WPD	04/05/24	LAWS OF THE NATURAL ORDER
34.TOPICS45.WPD	04/05/28	OUTLINE OF CURRENT TOPICS
35.QUASILF1.WPD	04/05/29	ORTHO-LIFE AND QUASI-LIFE.
36.INWANG2.WPD	04/05/30	THE INVERSE PASCAL TRIANGLE
37.no file	04/05/31	THE YANGHUI TRIANGLES
38.PRIME1.WPD	04/06/01	PRIMES DIFFERENCE TRIANGLE
39.NUMAPRX2.WPD	04/06/02	NUMERICAL APPROXIMATIONS II
40.NUMAPRX3.WPD	04/06/03	REPEATING DECIMALS

SCRAPS 2004

41.DIASYN01.WPD	04/06/06	DIACHRONIC-SYNCHRONIC PART I
42.MASATO.WPD	04/06/10	ARIGATO GOZAIMASU
43.QUILIN2.WPD	04/06/14	THE WISDOM OF LI KIANG II
44.COGSTYLE.WPD	04/06/15	STYLES OF THINKING
45.MOONMAYA.WPD	04/06/15	THE MOON AND THE MAYANS
46.EQUINDRM.WPD	04/06/21	A DREAM AT THE EQUINOX
47.BILLTR1.WPD	04/06/21	Letter to Bill Davis
48.no file	04/06/29	IN MEMORIAM: THOMAS GOLD
49.NOTES00S.WPD	04/06/30	INTRODUCTION TO NOTES
50.NOTE03S.WPD	04/07/11	A PERSONAL CONFESSION
51.NOTE04S.WPD	04/07/13	THREE NOTES
52.NOTE08S.WPD	04/07/25	ONTOLOGICAL ALTERNATIVES
53.INBOX.WPD	04/07/28	NOTES ON MY 86 TH BIRTHDAY
54.NOTE10S.WPD	04/08/08	SOME JUXTAPOSITIONS
55.NOTE11S.WPD	04/08/08	REPRESENTATIONS OF EXPERIENCE
56.RECHAREX.WPD	04/08/29	RECURSIVE AND EXPLICIT FORMULAE
57.NUMAPRX4.WPD	04/09/02	NUMERICAL APPROXIMATIONS IV
58.DONLTR.WPD	04/09/05	LETTER TO DON LONGENECKER
59.BELLRMBD.WPD	04/09/24	BELL NUMBER RHOMBOIDS
60.BELLHEX2.WPD	04/09/24	BELL NUMBER HEXOID
61.BELLTABL.WPD	04/09/26	THE BELL TRIANGLE
62.NOTE13S.WPD	04/09/27	SOCIETY'S FOUR SPECIALIZATIONS
63.NOTE15S.WPD	04/10/05	ANOMALIES, ANTINOMIES, AND ARISTOTLE
64.NOTE16S.WPD	04/10/09	LAWYER THINK
65.NOTE17S.WPD	04/10/11	CONTIGUITY AND CONTINUITY
66.QUOTINGS.WPD	04/10/20	BUSH-THE ONTOLOGICAL LEVEL
67.NOTE24S.WPD	04/11/03	AFFIRMATION OF ALIENATION
68.NOTE31S.WPD	04/11/14	ONTOLOGY 101 PART I
69.NOTE32S.WPD	04/11/14	GROVES AND CLEARINGS
70.NOTE31Sa.WPD	04/11/15	CREATION vs EVOLUTION
71.NOTE18S.WPD	04/11/16	FIVE FUNDAMENTAL WORLD VIEWS
72.NOTE35S.WPD	04/11/18	STYLES OF THINKING-INTRODUCTION
73.NOVDREAM.WPD	04/11/21	A DREAM, NOVEMBER 20/21, 2004
74.NOTE30S.WPD	04/12/08	POLARIZING POLARIZATION
75.NOTE33S.WPD	04/12/09	ONTOLOGY 101
76.NOTE38S.WPD	04/12/28	THE THEME OF BRAHMA

SOME APHORISMS RE HISTORY

VENTURA, MICHAEL

Politics and history are not the primary activity they claim to be. They are instead a kind of necessary, but distracting, excuse for activity.

THOMPSON, WILLIAM I.

IF HISTORY IS THE LIE COMMONLY AGREED UPON, THEN FUTUROLOGY IS THE ILLUSION COMMONLY AGREED UPON.

FORD, HENRY

HISTORY IS BUNK.

BIERCE, AMBROSE

HISTORY: AN ACCOUNT, MOSTLY FALSE, OF EVENTS UNIMPORTANT, WHICH ARE BROUGHT ABOUT BY RULERS MOSTLY KNAVES, AND SOLDIERS MOSTLY FOOLS.

ANON

THE PAST IS ONE OF THE SPOILS BELONGING TO THE VICTOR.

STALIN, JOSEPH

HISTORY IS WHAT I WRITE IT TO BE.

BEARD, CHARLES A.

WHEN ASKED IF HE COULD SUMMARIZE THE LESSONS OF HISTORY IN A SHORT BOOK, REPLIED HE COULD DO IT IN FOUR SENTENCES.

1. WHOM THE GODS WOULD DESTROY, THEY FIRST MAKE MAD WITH POWER.
2. THE MILLS OF GODS GRIND SLOWLY, BUT THEY GRIND EXCEEDINGLY FINE.
3. THE BEE FERTILIZES THE FLOWER IT ROBS.
4. WHEN IT IS DARK ENOUGH, YOU CAN SEE THE STARS.

Cicero

Not to know what happened before one was born is always to be a child.

Felix Frankfurter

The history of liberty has largely been the history of observance of procedural safeguards.

Santayana

Those who cannot remember the past are condemned to repeat it.

Li Kiang

History is too important to be left to the biases and imaginations of historians.

RAMANUJAN NUMBERS

RECURSION FORMULAE

1) $B_n = 6 B_{n-1} - B_{n-2}$

2) $B_{2n} = B_n(B_{n+1} - B_{n-1})$

3) $B_{2n-1} = B_n^2 - B_{n-1}^2$

4) $B_{2n-1} = B_n^2 - B_n B_{n-2} - 1$

5) $B_{n+1} B_{n+2} - B_n B_{n+3} = 6$

6) $B_{n-1}^2 = B_n B_{n-2} + 1$ from 3) and 4) Or $B_n = (B_{n-1}^2 - 1) / B_{n-2}$

7) $B_{2n} = B_{n-1}(B_{n+2} - B_n) + 6$ from 2) and 5)

8) $B_n = 3 B_{n-1} + \sqrt{8 B_{n-1}^2 + 1}$ from 1) and 6)

8) infers that $(8 B_n^2 + 1)$ is a square for all B_n

9, 289, 9801, 332929, 11309769
3, 17, 99, 577, 3363

EXPLICIT FORMULAE

$B_n = \text{trunc}(p^{n-1} \bar{S})$ where $\text{trunc}(x)$ is the integer part of x

where $p = 3 + \sqrt{8}$

where $\bar{S} = p^2 / (p^2 - 1) = (17 + 12\sqrt{2}) / (16 + 12\sqrt{2})$

$\bar{S} = p \bar{S}$

giving the additional recursion formulae:

$B_{n+1} = \text{trunc}(p B_n)$ and $B_{n+m} = \text{trunc}(p^m B_n)$

$B_1 = 1$

$B_2 = 6$

$B_3 = 35$

$B_4 = 204$

$B_5 = 1189$

$B_6 = 6930$

$B_7 = 40391$

$B_8 = 235416$

$B_9 = 1372105$

$B_{10} = 7997214$

Note last digit sequence 1,6,5,4,9,0,1,6,5,4,.....

add $B_n = \frac{1}{2\sqrt{8}} [p^n - q^n]$ where $p = 3 + \sqrt{8}$
 $q = 3 - \sqrt{8}$

RAMAN1.MCD

RAMANUJAN NUMBERS
B(n)

January 4, 2004

Explicit Formulae

$$p := 3 + \sqrt{8}$$

$$q := 3 - \sqrt{8}$$

Recursion Formula

$$B(n) = 6 B(n-1) - B(n-2)$$

$$b(n) := \frac{p^n}{2\sqrt{8}}$$

$$B(n) := \frac{(p^n - q^n)}{2\sqrt{8}}$$

n := 1, 2.. 12

n =	b(n) =	round(b(n)) =	B(n) =
1	1.030330086	1	1
2	6.00520382	6	6
3	35.000892834	35	35
4	204.000153186	204	204
5	1189.000026283	1189	1189
6	6930.000004509	6930	6930
7	40391.000000774	40391	40391
8	235416.000000133	235416	235416
9	1372105.00000002	1372105	1372105
10	7997214	7997214	7997214
11	4.6611179·10 ⁷	46611179	46611179
12	2.7166986·10 ⁸	271669860	271669860

$$S := \frac{1}{2\sqrt{8}}$$

$$p = 5.828427125$$

$$p + q = 6$$

$$q = 0.171572875$$

$$S := \frac{p}{p^2 - 1}$$

$$S = 0.176776695$$

$$S := \frac{(3 + \sqrt{8})}{16 + 6\sqrt{8}}$$

Explicit Formulae

$$\Phi := \frac{(1 + \sqrt{5})}{2}$$

$$\phi := \frac{(1 - \sqrt{5})}{2}$$

$$f(n) := \frac{\Phi^n}{\sqrt{5}}$$

$$F(n) := \frac{(\Phi^n - \phi^n)}{\sqrt{5}}$$

Recursion Formula

$$F(n) = F(n-1) + F(n-2)$$

n := 1, 2 .. 20

n =	f(n) =	round(f(n)) =	F(n) =
1	0.7236068	1	1
2	1.1708204	1	1
3	1.8944272	2	2
4	3.0652476	3	3
5	4.9596748	5	5
6	8.0249224	8	8
7	12.9845971	13	13
8	21.0095195	21	21
9	33.9941166	34	34
10	55.0036361	55	55
11	88.9977528	89	89
12	144.0013889	144	144
13	232.9991416	233	233
14	377.0005305	377	377
15	609.9996721	610	610
16	987.0002026	987	987
17	1596.9998748	1597	1597
18	2584.0000774	2584	2584
19	4180.9999522	4181	4181
20	6765.0000296	6765	6765

$$\Phi = 1.618034$$

$$\Phi + \phi = 1$$

$$\phi = -0.618034$$

note minus sign

$$\sqrt{5} = 2.236068$$

THE DISCRETENESS OF CHANGE

While change may not be discreet, it appears to be discrete. Moments of change are interspersed between periods of stasis. For example, we age in spurts. Just when we become used to our current restrictions, we get a new set. The same culturally, just when we stabilize our comings and goings, some innovation pulls the rug from under us. This also happens in both science and in religion. When scientists begin to have it figured out, close to a theory of everything, along comes a new paradigm, and it's back to the drawing boards. Over millennia the same happens to religions. Every entrenched orthodoxy knows that new prophets with new theophanies are a repeating occurrence (and menace).¹ Why does this oscillatory process of pause and change occur? Should there not be a Parmenidian changelessness or a Heraclitian ever flowing river? Is it to give new situations time for testing? Or is it that we feel secure in the old and fear the new?

The authors of myth understood this process very well usually framing it in anthropocentric terms. In Greek myth, for example, Hesiod tells us that the original gods, Chaos and Gaea and their family, including Erebus and Uranus, were the creators and first rulers. Then came their offspring, the Titans, who included Chronus and Rhea. Subsequently Chronus overcame Uranus and established the dominion of the Titans. But in turn Chronus and Rhea's children, including Zeus, Hera, and Hades, overthrew the Titans and established the dynasty of the Olympians. So the gods, whether representative of concepts, weltanschauung, or paradigms, were periodically replaced by new gods. And it is the offspring, the descendants of the gods (or consequences of the paradigms), that forced the replacements.

Not only the Greeks, but other cultures refer mythically or otherwise to paradigmatic changes. Judaism teaches there will be a new future brought by a messiah who is yet to come. Christians believe in a second coming of Christ. Buddhism tells us of Maitreya, the Buddha yet to come. And Hinduism goes even further with the concept of gods having many avatars. In the Bagavad Gita, Krishna tells Arjuna, "Whenever there is the need, I make for myself a body and return to earth." Native Americans believed in successive "Suns", or epochs that involved major transformations in the nature of being.² In each view there are successive transformations resulting from a new revelation, a new theophany, or a new paradigm.

While the river ever flows, it is also periodically halted. Perhaps in order to self-reference itself. Or possibly dammed temporarily by those with investments in the ephemeral, but who are invariably swept away. Whatever the side effects on the banks, mortality and extinction or transformation and emergence, the river continues to flow.

¹ It seems fair to say that a paradigm is to science what a theophany is to religion.

²The next or sixth sun will occur at Baktun 13.0.0.0 which is Gregorian 2012-12-12

FIBON2.MCD

SUBSETS OF FIBONACCI NUMBERS (skip one subset)

January 6, 2004

Explicit Formulae

Recursion Formula

$$\Phi := \frac{(1 + \sqrt{5})}{2}$$

$$\phi := \frac{(1 - \sqrt{5})}{2}$$

$$A(n) = 3 A(n-1) - A(n-2)$$

$$a(n) := \frac{(1 + \Phi)^n}{\sqrt{5}}$$

$$A(n) := \frac{[(1 + \Phi)^n - (1 + \phi)^n]}{\sqrt{5}}$$

$$\text{or } A(n) := \frac{(\Phi^{2n} - \phi^{2n})}{\sqrt{5}}$$

n := 1, 2.. 15

n =

a(n) =

round(a(n)) =

A(n) =

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

1.1708204
3.0652476
8.0249224
21.0095195
55.0036361
144.0013889
377.0005305
987.0002026
2584.0000774
6765.0000296
17711.0000113
46368.0000043
121393.0000016
317811.0000006
832040.0000002

1
3
8
21
55
144
377
987
2584
6765
17711
46368
121393
317811
832040

1
3
8
21
55
144
377
987
2584
6765
17711
46368
121393
317811
832040

$$\Phi = 1.618034$$

$$\Phi + \phi = 1$$

A(n) uses initial values 0 and 1

$$\phi = -0.618034 \text{ note minus sign}$$

$$\sqrt{5} = 2.236068$$

FIBON3.MCD

SUBSETS OF
FIBONACCI NUMBERS
(a skip one subset)

January 7, 2004

Explicit Formulae

$$\Phi := \frac{(1 + \sqrt{5})}{2}$$

$$\phi := \frac{(1 - \sqrt{5})}{2}$$

$$d(n) := \frac{\Phi^{2n+1}}{\sqrt{5}}$$

$$D(n) := \frac{(\Phi^{2n+1} - \phi^{2n+1})}{\sqrt{5}}$$

n := 1, 2.. 15

Recursion Formula

$$D(n) = 3 D(n-1) - D(n-2)$$

n =	d(n) =	round(d(n)) =	D(n) =
1	1.8944272	2	2
2	4.9596748	5	5
3	12.9845971	13	13
4	33.9941166	34	34
5	88.9977528	89	89
6	232.9991416	233	233
7	609.9996721	610	610
8	1596.9998748	1597	1597
9	4180.9999522	4181	4181
10	10945.9999817	10946	10946
11	28656.999993	28657	28657
12	75024.9999973	75025	75025
13	196417.999999	196418	196418
14	514228.9999996	514229	514229
15	1346268.9999999	1346269	1346269

$$\Phi = 1.618034$$

$$\Phi + \phi = 1$$

D(n) uses initial values
1 and 2

$$\phi = -0.618034$$

note minus sign

$$\sqrt{5} = 2.236068$$

CULTCAR2.WPD

[from 2003-#45, updated January 18, 25, 2004, February 14, 2004 , March 23, 2004]

CHARACTERISTICS OF OUR CURRENT CULTURE

ME ORIENTED [A CRITICAL IDENTITY PROBLEM]

NOW ORIENTED [SHORT TERM BOTTOM LINE, IRRESPONSIBLE TO FUTURE]

IMAGE ORIENTED [APPEARANCE AND IMAGE REPLACE ESSENCE]

NOVELTY ORIENTED [SHORT TERM FADS REPLACE GENUINE INNOVATION]

HIGHLY COMPETITIVE [SATURATED WITH IRRECONCILABLE SIMILARITIES]

HIGHLY CONFORMING [DIVERSITY IS CONFUSING, EVEN UNPATRIOTIC]

INSTITUTIONALLY RELIGIOUS [BUT SECULAR AND MATERIALISTIC]

HYPOCRITICAL [SELF--DELUDED, SUSTAINED WITH FEEL-GOOD RHETORIC]

HEDONISTIC [DEMAND INSTANT GRATIFICATION]

WASTEFUL [OBLIVIOUS TO CONTEXTS AND CONSEQUENCES]

ARROGANT [WE HAVE THE RIGHT ANSWERS AND SOLUTIONS]

LEMMING LIKE [THE MEDIA ASSURE US WE ARE BOTH RIGHT AND BEST]

DYADIC THINKING [REDUCTION TO BLACK/WHITE, US/THEM, PSEUDO CHOICES]

MONOPOLISTIC CAPITALISM [CONTORTED VIEWS OF WHAT CAN BE OWNED]

SUCCESS MEASURED BY WEALTH, CELEBRITY, POWER [OUR REAL PANTHEON]

CLASS DIVISIONS [LARGE GAPS IN BOTH ACCESS AND REMUNERATION]

PRESENT AMERICAN ATTITUDES AND EXPECTATIONS

WE WANT INDEPENDENCE ON ALL LEVELS, YET ARE A CONFORMIST SOCIETY

WE WANT NO LIMITS OR RESTRICTIONS ON OURSELVES, ONLY ON OTHERS

WE WANT INSTANT GRATIFICATION IN ALL AREAS

WE FOCUS ON THE VISIBLE, ON THE IMAGE NOT THE ESSENCE

WE CAN EASILY IGNORE OR POSTPONE THE UNPLEASANT

WE EMPHASIZE COMPETITIVENESS AND WINNING, EVEN WINNER TAKE ALL

WE HAVE ONE SET OF VALUES FOR OURSELVES AND FRIENDS
AND A SECOND SET FOR OPPONENTS AND ADVERSARIES

WE BELIEVE WE WILL WIN THE LOTTERY

Such attitudes have created a "now" culture with no vision or responsibility for the future; a "cosmetic" culture focusing on the superficial and camouflaging the realities we wish to ignore; a "youth" culture emphasizing fads and novelty and deprecating saving and commitment; and a "me" culture based on one set of rules for me and another set for everyone else.

We are characterized as a consumer society. We look at the price with no consideration of the cost. But we are poor consumers in that we make no demands for quality, it is poor taste to complain, we settle for lemons. We want novelties not innovations. That is, while always looking for something new, to be first on the block, we are opaque and hostile to real alternatives.

While in the past Americans have been very innovative, we have now become so concerned with the ownership of what has been developed that innovation is being strangled.(e.g. copyright laws) Patents and rights of ownership have been extended even to stem cells and genes. We hold that everything can be owned and used to make a profit. This has suffocated our domestic "idea industry". Americans now face a critical choice: Unleash our innovativeness or become extinct.

The hubris that the "number one" culture has the right and responsibility to control and reshape the world, and to do it alone, mocks the Gods of History. If we have become uncorrectable then we shall inevitably be tossed into the trash bin of history.

EXECUTIVE SUMMARY:

In brief, American culture is a **consumption obsessed me-now-culture (on wheels).**

SEVEN CRITICAL PRINCIPLES of Leonardo da Vinci's Genius

- *Curiosita*: Acquire insatiable curiosity in your approach to life.
 - *Dimonstratzione*: Commit to test knowledge through experience.
 - *Sensazione*: The continually refine the senses, especially sight, as the means to clarify experience.
 - *Sfumato*: Be willing to embrace ambiguity, paradox, and uncertainty.
 - *Arte/Scienza*: Develop a balanced perception between science and art, logic and imagination, discovery and invention.
 - *Corporalita*: Cultivate ambidexterity, fitness, and poise.
 - *Connessione*: Develop a recognition and appreciation for the connectedness of all things and phenomena.
-

To da Vinci's principles might be added:

- Never be satisfied with only one solution or answer. Seek as many alternative solutions and answers as possible.
- Be willing to leave all alternatives on the table of discourse, however diverse or seemingly useless they may appear.
- Consider all possible contexts, and the effects of their inclusion or exclusion.
- Master the ability to abstract, generalize and utilize metaphors.
- Be willing to unlearn any dogma and fragment any construct in order to have freedom for search and design.

DREAM: LUNCH WITH EINSTEIN

I was in this crowded busy office with people racing around doing all sorts of seemingly unrelated things. I was told some one wanted to see me and was directed to a man sitting in a wheel chair. It was Albert Einstein. He extended his hand and said, "Are we still on for lunch?" I was both surprised and yet seemed to have some vague recollection that this had been arranged. I asked where he would like to dine and he mentioned one or two places he thought would be quiet yet had good food. I replied, "I will make a reservation."

Then I remembered I had promised to be at the DMV at 11:30 to help a friend. I had to make two phone calls, one to my friend explaining a change in plans, the other to the restaurant. Then I realized that I was wearing a heavy overcoat and I had to put it away. I went to the closet and found that all space was taken with visitors' and other coats. I hunted for some place to get rid of my coat and finally found a hook on which I left it. Now to telephone.

When I reached the room with the phone, it was very noisy. I knew I couldn't hear a thing. Most of the noise was coming from my radio which I rarely ever turned on. Why was it on and playing such noisy music? I went to the switch to turn it off. I turned the switch to off but it still kept playing. I toggled the switch several times, nothing happened. I opened the amplifier and unplugged the power source, it still kept playing. I tore several wires from their connections and it still kept playing. I decided to disconnect the speaker, I did but there were three other speakers that I could not reach. I was getting very frustrated and angry. I picked up the amplifier and banged it on the table. The music stopped.

At that moment a large hornet entered the room and started buzzing all around. It was not only noisy but 'protecting' the telephone. I realized that if not one thing then another, I was not going to be able to make the phone calls. I woke up.

Fibonacci Numbers

The recursion formula for the Fibonacci numbers is $F_{r+1} = F_r + F_{r-1}$

Beginning with the initial numbers 1 and 1 the recursion formula gives the Fibonacci sequence:

1,1,2,3,5,8,13,21,34,55,89,144,233,.....

The limit of the ratio between two successive numbers, $\lim(F_{r+1}/F_r)$ as r increases is $(1 + \sqrt{5})/2$
 [It is to be noted that whatever the initial pair of numbers, the ratio limit is always $(1 + \sqrt{5})/2$]

The Divine Proportion or Golden Mean

The Divine Proportion is $A:B :: B:A+B$

Dividing by B and letting $A/B = x$, we have $x = 1/(1+x)$ or $x^2 + x - 1 = 0$

The solutions to this quadratic equation are $x = (1 \pm \sqrt{5})/2$

By convention the positive root, $x = (1 + \sqrt{5})/2$, is designated by Φ

This value is called the Golden Mean or Divine Proportion

[Here we shall designate the negative root $x = (1 - \sqrt{5})/2$ by ϕ]

Explicit Formula

If we wish to know the value of the 110th Fibonacci number, for example, and do not want to repeatedly apply the recursion formula, we need an **explicit** formula which gives the value of F_n when we are given only n . While it is not always possible to derive an explicit formula from a recursion formula, in the case of sequences like the Fibonacci sequence it is. The explicit formula for Fibonacci numbers is:

$$F_n = (\Phi^n - \phi^n) / \sqrt{5}$$

The above is a brief introduction to the arithmetic properties of the golden mean. There are also many geometric and esthetic properties and many manifestations in nature. [An example, the loops in the analemma. The northern loop is to the southern loop as the southern loop is to the whole year. This is roughly true at present but the shape of the analemma evolves over thousands of years.]

For more information on the mathematical, esthetic, and historical aspects of Φ , see

- The Divine Proportion by H.E.Huntley Dover Publications 1970
- Mathematics Appreciation –Theoni Pappas
- Math and the Mona Lisa –Bulent Atalay
- Science and the Future Year Book 1977
- Number Theory: The Fibonacci Sequence –Verner E. Hagget Jr. p 178
- PARABOLA, Vol XVI no 4, Winter 1991

0

ZEROTIME.MCD

FEBRUARY 14, 2004

$$c := 10.4768218 \quad G := -7.1757059 \quad h := -26.976926 \quad am := 1.127074$$

$$mo := -4.662199 \quad lo := -32.791545 \quad to := -43.268364 \quad S := 39.355880$$

$$mp := -23.776602 \quad re := -12.550068 \quad J := \frac{(am + S)}{2} \quad K := \frac{(S - am)}{2}$$

$$x := \frac{-3}{2} \quad y := \frac{1}{2} \quad z := \frac{1}{2} \quad J = 20.241477 \quad K = 19.114403$$

$$A(x, y, z) := x \cdot c + y \cdot G + z \cdot h$$

$$A(x, y, z) = -32.791547 \quad \checkmark 012 \quad 62.3625810$$

$$A(2, -1, 0) = 28.129347 \quad A(-1, 0, 1) = -37.453747 \quad A(4, -1, 0) = 49.082989$$

$$A(3, -1, 0) = 38.606168 \quad A(-2, 0, 1) = -47.930568 \quad A(5, -1, 0) = 59.559810$$

$$J + lo = -12.550068 \quad -K + mo = -23.776602 \quad J + to = -23.026887$$

$$2 \cdot J + lo = 7.691409 \quad 2 \cdot K + mo = 33.566607 \quad 2 \cdot J + to = -2.785410$$

$$3 \cdot J + lo = 27.932886 \quad 3 \cdot K + mo = 52.681010 \quad 3 \cdot J + to = 17.456067$$

$$(3 \cdot K + mo) - (3 \cdot J + lo) = 24.748124 \quad \text{less than } c^2/G = 28.129347, \text{ hence expansion}$$

PROGRESS IN THE 20TH CENTURY

Western culture is addicted to the concept of progress, a term that it is unwilling to critically examine. Progress is perhaps an idea originally abstracted from evolution, with emphasis on increasing complexity and capability. It should be noted, however, that the path of bio evolution has been directed more toward the preservation of diversity than the breeding of complexity. But if progress is taken as increasing complexity and capability without regard to other parameters or values, then the 20th Century has been a Century of Progress. Let us look at some specifics.

When looking at the record we usually list:

- The assembly line and mass production
- Heavier than air flight
- Radio, Radar, and Television
- New medicines and surgical techniques
- DNA
- Satellites, space flight
- Computers

Also new ideas and concepts:

- Relativity
- Quantum Mechanics
- Expanding Universe
- Chaos theory
- Non locality

But we must also list:

- New weapons: poison gas, napalm, bio weapons, nukes
- New delivery systems: bombers, submarines, missiles
- War waged against cities and civilians: Dresden, Tokyo, Hiroshima, Nagasaki
- Holocausts: Armenians, Jews, Kurds, Hutus
- Walls: Iron Curtain, Berlin, Israel
- Ozone layer and global warming

And updated ideas and concepts:

- Preemption: Port Arthur, Poland, Pearl Harbor, Iraq
- Communism: dictatorship of a political party
- Fascism: corporations replacing people as citizens
- Capitalism: globalization, winner take all
- Control of populations with scientific spin
- Consumerism, waste
- Humans serving technology replacing technology serving humans.
- Shrinking of time: instant gratification, focus on the present

So just how should we define progress?

The 19th Century

Evolution Steam

Telegraphy

Photography

Railroads

LAWs of Thermodynamics

Maxwell's Equations

Radio Activity

"God is dead"

THE WARRIORS' CODE

15

After the outbreak of WWI in 1914 Admiral Graf von Spee had taken his squadron of two armored cruisers, the *Gneisenau* and *Scharnhorst*, and 3 light cruisers from Tsingtau across the Pacific to the west coast of Chile, where in an engagement with a British squadron off Coronel he was victorious. A few weeks later he decided to raid the British wireless station in the Falkland Islands. But in the meantime the Admiralty had dispatched two battle cruisers to the Falklands under the command of Vice Admiral Sturdee. . These ships out gunned and out sped those of von Spee and his squadron was sunk. There were few survivors— among them was the *Gneisenau's* first officer, Commander Pochhammer.

The Brave Sailors'

Commander Pochhammer was treated with special care and deference, and found himself that evening tucked up in the *Inflexible's* vacant admiral's cabin, complete with hot water bottle, a bottle of wine and a jug of warm water. There he was told of the death of Captain Maerker, and was promised the names of all those who had been rescued so that their relatives could be informed: for now the post of C-in-C of the decimated East Asiatic Squadron had fallen on this officer. He was not allowed to rest for long. 'I was hardly installed in my new cabin,' he wrote later, 'when the commander's steward appeared and announced that dinner was served. in the officer's mess. ...My covering was not exactly princely. .. being a travelling rug which I had wrapped around my still stiff limbs. I then raised myself, and, assisted by two men, passed the sentry in front of the cabin, who saluted me, and reached without mishap the table.' The tablecloth struck Pochhammer as an unusual luxury, even if it was stained with coal dust from the interrupted early morning coaling. It was a 'scratch' meal, just ham and eggs, and with it-'what do you like, sherry or port?' He shared the table with the battle cruiser's officers: a genial crowd, he found them, 'and if all Englishmen were like those in the *Inflexible* we should be able to get on with them'. One by one the other surviving unwounded officers joined Pochhammer, six of them in all, a pathetic fragment of those who had lived and worked together for so long in the *Gneisenau*. From the first officer there was just 'a silent greeting, a momentary gleam in the eyes' of recognition; 'and expressions of delight at seeing each other alive again'. Later that evening, while recovering on one of the wardroom's leather sofas, Pochhammer was handed a telegram from Admiral Sturdee.

'Please convey to Commander of *Gneisenau* the C-in-C is very gratified that your life has been spared and we all feel that the *Gneisenau* fought in a most plucky manner to the end,' ran Sturdee's message. 'We much admire the good Gunnery of both ships, we sympathize with you in the loss of your Admiral and many officers and men. Unfortunately, the two countries are at War, the officers of both Navies who can count friends in the other have to carry out their country's duty, which your Admiral and Officers worthily maintained to the end.'

April 20, 1918 Baron Manfred von Richthofen shot down his 79th and 80th Allied planes for the WWI record. ²

April 21, 1918 On this Sunday morning the "Red Baron" took off with a squadron of six headed toward the Somme looking for prey. This same morning Capt A. Roy Brown, a Canadian, flew with a squadron that included his friend, Wilfred May, for whom this was a first sortie. The German and British squadrons met and soon Richthofen was after May. Brown turned to his friend's defense and shot at Richthofen's red triplane. Richthofen continued to fly after May but slowly lost altitude and dropped to the ground in an area occupied by Australian troops. By the time the plane stopped he was dead.

A few days later, a British officer wearing a black arm band led a funeral procession including an honor guard of Australian soldiers. Manfred von Richthofen was buried in a crude wooden coffin covered by wreaths sent in tribute by Allied aviators. The pallbearers were Allied squadron leaders. An Anglican chaplain conducted a burial service, Three volleys were fired and a bugler played "The Last Post". On the grave was placed a large wreath, sent by British Headquarters and inscribed to Captain von Richthofen,

"Our gallant and worthy foe"

¹From the book, THE PURSUIT OF ADMIRAL von SPEE
—Richard Hough

²From, KNIGHTS OF THE AIR, Time-Life series The Epic of Flight

Dec
WWII 1939

Sixty British seamen who had been held ^{prisoner} captive on the Graf Spee

were released to the Uruguayan government

36 members of the Graf Spee's crew had been killed

in the engagement with the ^{Exeter} Exeter, Achilles, and Ajax

At the funeral ^{of the Bedouin sailors} the British ex-prisoners sent a wreath

"In memory of brave sailors, from their comrades
in the British Merchant Navy"

- 25 Centuries of Sea Warfare p 317

- Jacques Mordal

Falkland's Dec 8, 1914

Graf Spee Dec 13, 1939 Scuttled Dec 13
Battle

For the Warrior's Code

Confederate General Joe Johnston attending William Sherman's funeral
in NYC. Standing in the rain caught pneumonia, died one month later.

"He would have done the same for me"

THE PLANCK FORCE

To the four forces currently recognized by physicists should be added a fifth: the Planck Force. This force is independent of mass, charge, distance from a source, etc. It is present at all times throughout all space. It is a candidate for Einstein's *lambda* and for the effects of dark matter. It may well be the cause of the expanding or accelerating universe. The Planck Force is equal to c^4/G , with dimensionality $[ML/T^2]$, and the \log_{10} cgs value of 49.082989.

How does the strength of the Planck Force compare with that of gravity and coulomb forces?

Level	planck/gravity	planck/coulomb	coulomb/gravity
	$R^2 c^4 / M^2 G^2$	R^2 / r_0^2	m_0^2 / M^2
planck particle	1	1	1
baryon	S^2	$\alpha \mu S$	$S / \alpha \mu$
D	$(\alpha \mu)^2$	$\alpha \mu S$	$\alpha \mu / S$
stellar	$(\alpha \mu)^4$	$(\alpha \mu S)^2$	$(\alpha \mu / S)^2$
universe	$(\alpha \mu)^6$	$(\alpha \mu S)^3$	$(\alpha \mu / S)^3$

In this table, c = the velocity of light, G = Newton's gravitational constant, r_0 = the planck radius, m_0 = the planck mass, α = the fine structure constant, μ = the proton/electron mass ratio, and $S = \hbar \alpha c / G m_p m_e$ where \hbar is Planck's constant, m_p the proton mass, and m_e the electron mass. \log_{10} cgs values: $S = 39.355880$, $\alpha \mu = 1.127074$; D = has the mass 14.452204 and a radius equal to the electron radius, $r_e = -12.550068$

If the Planck Force is an expansive force it will be in equilibrium with gravity when ,

$$\frac{GM^2}{R^2} = \frac{c^4}{G} \quad \text{or} \quad \frac{M}{R} = \frac{c^2}{G}$$

These equations define the Schwarzschild bound or Schwarzschild radius, GM/c^2 . If gravity and the planck force are the only significant forces operating, then when R is greater than the Schwarzschild radius [first quadrant] the system will expand, and when less than the Schwarzschild radius [second quadrant] it will contract (to a black hole). For the universe as a whole it appears that gravity and the planck force are the only significant forces. It follows that at the present time the size of the universe exceeds its Schwarzschild radius.

is in the first quadrant

The plank force interacting with contractive charges will be in balance only when,

$$\frac{\hbar c}{R^2} = \frac{c^4}{G} \quad \text{or} \quad R^2 = \frac{\hbar G}{c^3}$$

which is the value of R equal to the plank radius.

The basic problem with the data in the planck/gravity column is the stability of stars if ^{the} only forces acting are plank & gravity

Radiation Pressure

Perhaps the Planck Force

acts to stabilize, being expansive
or contractive depending on the
direction toward stability

Forces

Planets	Molecular ↓, Grav ↓, Planck ↑, Electric ² , Cent ↑
Stars	Pressure ↑, Grav ↓, Planck ↑, " Cent ↑
Galaxies	Grav ↓, Cent ↑, Planck ↑ " "

∫. FORM-FORCES? esp for galaxies?

STANLEY M. GREENFIELD

April 16, 1927 February 28, 2004

IN MEMORIAM

March 7, 2004

With the passing of a loved one or a friend, there is always grief, but in many of our lives at the time of a passing there is also inspiration offsetting our grief. We are inspired by the life of the departed one and the contributions and sacrifices he has made for all of us. And so it is with Stan. In these days of grief our memories bring back to us the years of our good fortune in having been associated with him. And we are inspired by having known a very special person.

What is it that made Stan a very special person, one who stood out in any group or gathering? We all have our personal answers to that question. Our personal memories of particular occasions. Some of us would list Stan's achievements and contributions, and there are many. Others would list sweet memories of a personal or intimate relationship. But it is clear to all of us that we each knew only a part of Stan and that the real Stan was greater than the sum of all the parts.

What made Stan a very special person to me was he was a man of thought and a man of action. A very rare combination in one person. Most activists are pushing ideas that are not their own, and most thinkers never get around to much activity. Stan was at home both in the world of ideas and in the world of people. In his thinking there were no taboo subjects, things that must be kept off the table of discourse. His actions were innovative initiatives not just responses to initiatives of others. Stan was also, if I may use the metaphor of a zoom lens, a master of zoom. He could zoom in and focus on the personal and specific. He could zoom out and grasp the big picture and the diverse factors involved.

Stan was also a leader. He was a committee chairman par excellence. He did not force his own opinions nor compete with committee members. Instead he had the talent of bringing out the best in all of the participants. Stan handled disagreements in a very positive way, achieving synthesis instead of conflict. I am reminded of the story of Einstein and Gödel. Colleagues would ask Einstein, "Why are you always inviting Gödel? He is so disagreeable." Einstein replied, "I invite him because he always disagrees with me and this leads to deeper insights" Stan, like Einstein, understood the opportunities implicit in disagreements and he could always diffuse a locked argument with the Talmudic, "On the other hand".

Yes, Stan was a member of a rare species of human. We somehow knew that Stan was a modern incarnation of those the ancients called Patriarchs. He will be missed by all of us who knew him, but we know that the world is a much better place because of what he contributed during his lifetime among us.

"We shall not see his like again"

April 4, 1974

The President
The White House
Washington, D. C.

Dear Mr. President:

Regretfully, I must submit my resignation with the desire that it be made effective May 24, 1974. The Reason for this action is twofold. First, it is my desire for several personal reasons to return to private life. Second, and not unconnected, it is my feeling that in the past year there has been a strong trend to significantly retreat from the major advances we have made in cleaning up our environment.

I have spent the last three and a half years of my life helping to build the Environmental Protection Agency into an effective force that moved the country towards a rational achievement of environmental quality. I have spent the past twenty-five years acquiring the knowledge that permitted me to make this contribution. It is evident that I am not just an environmental "do gooder" but, rather, a professional in a complex, technical socio-economic field. I am fully appreciative of the needs of our society and have long been a proponent of the necessity of facing up to our evident growing energy shortage. I firmly believe that we can achieve a solution to our energy problems without abandoning our striving for environmental quality. What is required is a careful balancing of the achievement of these two major requirements for a viable society. We cannot abandon one for the other. To do so would be "costly" for our people, both now and even more so in the future as once again we awake to the realization that we have sacrificed our future for short-sighted, near-term expediency. Mr. President, we can do both—we must do both—but I despair for the needed dedication to this approach by governmental policy makers.

I believe that the current situation is being used to brush aside the major gains we have made so far, rather than recognizing that with an intelligent approach we can optimize the viability of our society with respect to both energy requirements and environmental quality.

I respectfully ask that my resignation be accepted and at the same time I thank you for the opportunity and the honor you have afforded me in allowing me to take part in what had been the noblest attempt by modern man to rectify the environmental harm he has visited on his world.

Respectfully yours,

Stanley M. Greenfield, Ph.D.
Assistant Administrator
for Research and Development

It seems as though in some way Stan is still with us.

With some people, when you converse, a joint mind is created. Ideas emerge that none could have come up with separately. Stan was always a powerful partner in creating a joint mind.

One of the most important things we can share with one another is a **vision**. Many of us at RAND in those days back in the 50's. Stan, Bill, Pat, George, Donna, and myself glimpsed a vision that bonded us over the years. A vision of a future for humanity in which the human challenge was not, who was going to dominate whom, but lay in our escaping our ignorances of the world, of the mind and of the spirit. Yes, a vision as old as Socrates and Lao Tze, but one pursued only by the few. In looking back, we lived in one of those golden moments when the spirit and intellect escaped the fetters of the daily grind and glimpsed a sacred destiny that could be.



April 6, 2004

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September 14, 2004

Stan was a meteorologist. Perhaps that may explain, at least in part, his inclusiveness of all facts and his openness to alternatives. While meteorology is a physical science and operates basically in accord with the fundamental rules of the scientific method, one of which is validation per prediction, it has greater difficulty than other sciences in meeting this criterion of validation per prediction. This has given meteorologists pause regarding their being restricted purely to the classical scientific method. The epistemology of science is a net that by itself does not catch all the phenomena involved in complex systems of interacting air masses and their contexts. More even than chaos theory appears to be involved. This short coming of classical methodology has made meteorologists more open to alternate approaches than those whose practice is in the more "stable" branches of science, that is those branches in which changes occur at a much more moderate rate. Hence the problems associated with rapid change have made meteorologists open to new ways of looking at phenomena and the contexts in which they are embedded. Stan took this openness beyond meteorology to all the subjects in which he had expertise and interest.

February 28, 2006

We are slowly realizing who Stan really was: A patriarch, doing, while here, all things a patriarch does. But now that Stan has been "away" for two years, we begin to realize he not only was a patriarch but is a patriarch; and as with other patriarchs, always with us, always guiding us, always inspiring us. A Patriarch is a Patriarch whether living now or in the past. A Patriarch is a diachronic person, a personified diachronic principle. And we now see Stan was such a person.

2-17-05

Dr. Wilson -

I hope you enjoy this material.
I apologize that it took me so long
to get it to you. RAND takes its
time getting back to you!!

Thank you so much for your
friendship & love during my
Dad's lifetime, as well as during
his illness. I know that it
meant the world to him, as it
did (and still does), ~~to~~ to us.

Fondly,
Diane Greenfield

February 24, 2005

Dear Diane,

Thank you for sending the reminiscences from RAND. Many fond memories, many very special people. Especially your dad, Stan. He was an inspiration to me from the start. I admired his clear way of thinking and ability to penetrate to the essence of a problem. Even more I admired his ability to obtain solutions by bringing us together, extracting what we each knew (sometimes we didn't know we knew until he showed us), and getting the best out of all of us. He was a real leader. Although I didn't know this until recently when I received a copy of his resignation as Chief Scientist at EPA giving the reasons for his resignation, I found his statements pointing out the damage done to scientific research and plain facts by political manipulation a prescient forewarning of things to come. Not many have the principles that make them resign from a promising career to condemn corruption. Stan is really an American Hero! How we so need to keep his example before us today.

But on a more personal level, Stan and I had something in common that creates the deepest form of friendship: We shared a vision. We could see what could be done by and for humanity if we could but cut through the ubiquitous pettiness with which we all have become obsessed. We had a dream, and like others in this land who have had a dream, we believed we could make a difference. And on the day of my last visit with Stan, on the afternoon before he died, we spoke of our dream. He nodded and grasped my wrist. We were still together at this important moment. To the end of his days Stan was committed to this dream. We shall never let him down!

I am so grateful that I could share part of Stan's life. I know he was many faceted and each of us shared a different part of Stan, but the whole was far greater than the sum of the parts, as now looking back we can begin to see.

Again thank you for sending the RAND records, and for your kind letter which I much appreciated. I hope all is well with you and your mother. And I know we all share the love of that great guy.

THE LAWS OF CHANGE
OVERVIEW

Continually Operating Laws

- The Second Law of Thermodynamics
- The Principle of Plenitude
- The Law of Hardening
- Evolution [diversity]
- Growth [multiplicity]
- Ozbekian's Law

Dialectics: Departure and Return

- Cosmopolitanism | Isolation [Chamberlain and Moulton]
- Polarization | Synthesis [Hegel]
- Action | Option
- Extinction | Radiant
- Packaging | Depackaging [Revolution]

Dialectics: Interactive

- Consolidation \ Fragmentation
- Joining \ Separating
- Homogenization \ Diversification
- Centralization \ Diffusion
- Simulation \ Innovation
- Garberizing \ Discriminating
- Including \ Excluding
- Abstraction \ Generalization

Infrastructure Dyads

- Diachronic / Synchronic
- Recursive / Explicit
- Contiguous / Consistent
- Sequences / Loops [infinite regressions]
- Belong / Control
- Aggregate / Set
- Definition / Macro
- Focus / Diffuse
- Texture / Frequency
- Eigen / Continuous
- Order / Random

Universal Principles

- Universal Uniqueness Principle [everything is a special case]
- You cannot do only one thing
- There is no such thing as a "whole"
- There is no such thing as "truth"

Supplemental Notes:

Approaches

ADMA

TDMA

FDMA

CDMA

COG: ZOOMING
TUTTAPOSING

STRUCTURALISM:

SIMILARITIES IN THE DIFFERENCES

DIFFERENCES IN THE SIMILARITIES

SEEDS OF THE DAY

Infrastructure for the Laws of Change

- 1) Brahma's Theme: Realization of all possible variations contained in the Theme.
The theme itself is unknowable, but an understandable implication of the Theme is the maximization of diversity.
- 2) The imperative of diversity leads to many species and sub-species.
- 3) These diverse species seek to survive, though that is not an essential part of the Theme
Their realization, not their survival, is what is important to Brahma. But survival is permitted so long as such survival does not interfere with the realization of further diversity.
- 4) The species themselves are of three kinds.
 - a) Those not concerned with survival, but with the understanding and fulfilling of Brahma's Theme
 - b) Those concerned with survival, but seek survival by belonging to and harmonizing with the aggregate of realized species. [e.g. ecological complexes]
 - c) Those concerned with survival and seeking it by controlling the aggregate.
This species has learned that the path to control is through homogenization. It therefore seeks its survival through the conversion of that which is different to its own likeness. [cf. cancer cells] This action in turn violates the goal of Brahma's Theme. The result is the extinction of all species with intent to control.¹

The Impossibility of Socialism

There is fear in many quarters of the doctrine of socialism, whether of the Marxist variety or the Gospel variety. But fears that socialism will take over are ungrounded. Socialism is contrary to human nature. Humans are too self, greed, and power oriented to ever willingly participate in a socialist society. Experiments with introducing socialist ideas have always resulted in their having to be enforced on people. [The massacre of millions of kulaks in the USSR, murderous oppression of dissent in China, Cuba, Haiti, etc.] Such policies as universal health care, social security, etc, while labeled socialistic are really based on the populace' desire for a cut of the cake. That is, these policies are not extracted out of the Gospel teachings of selfless sharing, but out of satisfying personal greed. The capitalist enshrinement of greed is humanly natural. But for any policy based on greed to survive, it paradoxically must allow some degree of "socialistic" distribution. When the greed of the few prevails too long, [Winner take all Capitalism], the greed of the many rises in revolution. Such revolutions are mislabeled Communistic or Socialistic. They also are for power and greed.

¹The species, homo sapiens, is of this last category, but it has some insight into the destiny of extinction unless it corrects itself. This has led to humans holding the line at "dyadic diversity", which is the last stand against complete homogenization. Dyadic diversity is manifested in the human psyche, human logic, human politics, human games, etc. It is humanity's only remaining bulwark against its urge to power, dominance and control, the path to homogenization and extinction.

i.e.,
us/them

Those who label their opponents "socialists"
or "engaging in class warfare"
are really saying your greed is
threatening [to] my greed

Religion, ^{realising} suspecting its failure to overcome
the culture of greed, ^{now} gets its relevance in
apocalyptic imageries of final judgments
soon to come

It is not the liberals who threaten us with destruction.
It is the literals.

VARIETY IN EXTINCTIONS

On the planet earth a phenomenon occurred called "life". While possessing the capability of generating much variety, this particular development, *life*, showed early signs of contesting Brahma's Theme: **The actualization of as many varieties as possible.** As *life* evolved it became increasingly clear that its primary intent was its own survival. Survival in itself could consistently operate in accord with Brahma's Theme, but some species of *life* succumbed to the illusion that the best way to survive was by dominating and controlling their contexts. This delusion became particularly evident when a particular sub-aggregate of *life* called humanity appeared. This species not only had the resolve to control and dominate but began to use its creative talents to facilitate that goal. They even established gods that commanded them to dominate and to subdue [Genesis 1:28]. It further developed that sub-aggregates of humans iterated this injunction to dominate and sought to subdue and control other humans. In fact the drive to dominate and subdue all that differed manifested itself recursively down to each human sub-group.

The threat posed by humanity to Brahma's Theme caused alarm and Lord Shiva was sent to earth to investigate. He reported back that much of life harmonized with Brahma's Theme of actualizing variety. Many species lived symbiotically and formed ecologies that enhanced variety. However, the species *homo sapiens* was definitely threatening to the Theme. Humans rendered species extinct, destroyed ecologies, and did not even live in harmony with members of their own species. After dominating other species [except for a few bacterial and viral species] their drive to dominate led to them to focus primarily on the means to dominate others in their own species. This they did with countless wars and increasingly sophisticated weapons. Lord Shiva reported, "As the situation stands today, if not thwarted, this species will make impossible any fulfillment of Brahma's Theme on earth."

Brahma, on hearing the report, instructed Lord Shiva to remove this threat to the Theme. Lord Shiva recalled that when threats to destroy diversity on earth had occurred in the past, he deflected asteroids to remove the threatening sources and restore the proliferation of variety. But to be in best accord with Brahma's Theme, there should be variety even in the modes of extinction. Lord Shiva then decided that an alternative approach to extinction would be to leave humans to their own devices. Let them develop more powerful weapons and continue in their illusions. At a certain point their obsession with power, their will to dominate, in combination with the increased power of their weapons would solve the problem. But Lord Shiva was concerned that self-destruction of humanity by humanity might do extensive damage to other agents on earth that lived in harmony with Brahma's Theme. Measure was taken and while it was regrettable that many who served the Theme would be terminated, the risk of leaving *homo sapiens* on the planet was too great. Lord Shiva concluded that after the extinction a radiant world would again occur and in good time the planet earth with its particular phenomenon, *life*, would rejoin the cosmos in contributions to Brahma's Theme.

WHAT IS MEANT BY JUSTICE?

The image of justice is that of a feminine figure holding a balanced scale. Does this icon imply the priority of justice is **maintenance of balance**? That the first duty of justice is to restore a balance that may have been destroyed by what are designated as criminal acts? If so, is the injunction, "an eye for an eye, a tooth for a tooth", the answer? This biblical injunction does seem to place a priority on **balance**, but it never restores the earlier situation in which there were more eyes and teeth in the balance. An alternative injunction for restoring balance is **restitution**, which is quite distinct from removing more eyes and teeth. The balance that restitution implies is that the eye or tooth itself be restored. Of course this is rarely possible, so restitution usually takes other forms such as money or service.

Another approach to justice is **punishment**. While punishment may in some unbalanced sense seem to restore balance, particularly in the minds of victims, from the social point of view punishment is more for **deterrence** than for balance. Advertizing what will happen to you if you perform certain acts is supposed to deter the enactment of those acts. But even if the link between the act and the consequence were 100% certain, which it never is, there would still be criminal acts. Humans can never liberate themselves from the present moment whatever be the future consequences.

Still another concern of justice is the **protection** of society. Offenders must be isolated from society for the safety of society; imprisoned, not for punishment but for society's security. **Isolation** and imprisonment for protection may also work in the reverse direction, the protection of the criminal from society's vindications.

A fourth approach to justice is the **rehabilitation** of the criminal. This view holds that all humanity is interwoven and the rescue of any enhances us all. This view is also vaguely related to balance. The imbalances effected by criminal acts can somehow in part be offset by the **restoration** of the criminal. Perhaps even the crime itself erased by forgiveness. While to forgive is possible, to forget is not. The stain remains to tip the scales.

What are the historic sources of these views of justice?

- Balance** has its roots in Greco-Hebrew traditions, from both Plato and the Bible,
- Restitution** was a primary among the Native Americans and other tribal societies.
- Punishment** derives from a primary urge among peoples in most societies for vengeance
- Deterrence** is an unproven experiment proposed by some modern schools of psychology.
- Protection** is a pragmatic solution based on no philosophy other than self preservation.
- Rehabilitation** is an interpretation of certain Gospel teachings favored by liberal thinkers

How are these views to be ranked? Do we have criteria with which to establish priorities?

My personal ranking: Protection, Restitution, Rehabilitation, Balance

"May the punishment fit the crime, even if we need to bring back stocks, pillories, and flogging"

A court of law has two tasks

- 1) Prove Responsibility
- 2) Establish Accountability

What constitutes accountability?

Correction
Non-Repitition of act
Inability to repeat
Assured by capital punishment - removal from office
Restitution
Punishment - vengeance
By-Product
Lesson
Precedence

...

...

...

...

...

WHAT IS MEANT BY JUSTICE PART II

CRIME

LITTLE GUYS VS LITTLE GUYS

PERSECUTION

BIG GUYS VS. LITTLE GUYS

WAR

BIG GUYS VS. BIG GUYS

TERRORISM

LITTLE GUYS VS BIG GUYS

In Part I, four aspects of justice were described: Balance, Protection, Punishment, and Rehabilitation. The Part I analysis was based on the crime level of persons vs persons. But how is the concept of justice to be extended to larger domains? Horizontally between larger groups and aggregates of the same level, such as gender vs gender, race vs race, corporation vs. corporation, and nation vs nation? And vertically between aggregates of different levels, poor vs. rich, corporation vs. nation, nation vs, globe? Do the parameters of Part I hold or does justice between larger groups and between vertical groups require a different set?

What was omitted in Part I was the idea that justice is achieved by doing that which most closely fits or follows the law. But this involves the arbitrariness in the interpretation of the law, the arbitrariness of the law itself, and the arbitrariness in what is meant by fit. This approach, though basic in legal thinking, is philosophically untenable unless there are philosophical criteria underlying what a law should do. So the approach to intra-level and inter-level justice should first address the criteria governing what a law is trying to do.

Candidates include: optimizing security, optimizing stability, optimizing stability with change, optimizing progress, optimizing welfare, or some other specific goal or end. What is here implied is the optimization for all persons, beings, or institutions involved, but all too frequently the criteria are to optimize the advantages or benefits to some select sub-group.

Equality must not always be equated with justice. There are times when **inequality** best serves the interests of all. Toynbee metaphorically characterized human society as a group of climbers ascending a steep cliff. To ascend, the most experienced climber was to lead the way, going up ahead driving the pitons, securing the rope, and enabling those below to safely catch up. The caveats were that the lead climber was never to get too far ahead, for in that case if he slipped the momentum of his fall would pull all the climbers off the cliff. So even though not all climbers were at equal heights as the ascent proceeded, they were never to be far apart. While security and progress required inequality in height, implicit in the metaphor was that the lead position was one of responsibility not of privilege.

THOUGHTS2.WPD

March 20, 2004

SOME THOUGHTS ABOUT HUMAN LIMITATIONS

The world we know through our physical sense perceptions appears to be continuous in time and contiguous in space. But continuity and contiguity may be illusions, and their logical offspring, consistency, may limit our view of reality to but a small portion of the real nature of the cosmos. Freud once said that a measure of maturity is the ability to live with ambiguity, which involves both uncertainty and inconsistency. If we accept this measure then we are all still very immature. But perhaps the time has come for us to grow up and begin to accept that the world is far richer than the one delimited by the restrictions we choose to impose on it.

A beginning in this direction was made by Kurt Gödel when he demonstrated that the propositions which can be proved within an axiomatic system were only a portion of what was valid within that system. While this may be true of any axiomatic system it is also true for a set of axiomatic systems. In other words, no single approach to describing the world will ever produce an isomorphic model. And all approaches together will not produce a homomorphic model. Granting Gödel's incompleteness theorems are true, what strategy should be adopted by science, philosophy, theology, and other "self-consistent" approaches, to optimize their models?

Perhaps we might first attempt to construct as many additional self-consistent approaches [axiomatic systems] as possible, recognizing that they will all probably be inconsistent with each other. [We have already witnessed this in the inconsistency of science and theology]. Then we naturally would try to build bridges between the different inconsistent approaches in order in some manner to unify them, that is to create a coherent picture. But what logical bridges are there that can unify the inconsistent? We already know that the answer is none. Our way of organizing thinking called logical won't bridge.

We might note here that philosophy likes to think of itself as the approach that can bridge all approaches. But philosophy has long since abandoned consistency. ["On the other hand"] It has achieved a sense of "unity" by giving diverse and inconsistent aggregates of ideas a common name. That is, the ^{only} unity in philosophy is not in consistency, the unity is in the label philosophy.

The word coherent has popped up. Does coherent differ from consistent, if so in what way? Can the world be inconsistent yet coherent? Perhaps so, consistency is a restriction imposed by our logic. Everything in the world could be connected and operate coherently but not in a way we would perceive as logical or consistent. This means that a self-consistent approach to reality, such as the scientific method, won't work. And as to the word picture. A picture is a pattern that resembles something we have encountered in our experience. If we recognize the pattern as something familiar we can call it a picture. But there is no assurance that the larger patterns of the universe have much to do with our special brand of experience. [But we ^{still} must assume that they do].

In summary: We try to encapsulate the world in the net of our particular human way of experiencing it. This results in our insisting on its being consistent with our logical criteria of consistency. We require that it must in some way be a unity, whether describable by a "theory of everything" or unified under the direction of a monotheistic deity.

THOUGHTS WHILE IN
A SACRED PLACE

Mystery resides at the interface
of the manifest and unmanifest
at the verge of somethingness
and nothingness

Beauty directs us to the Mystery
The Mystery directs us to Beauty

The cloud half hidden by the hill
tells us there is great beauty beyond

We must first see the patterns and textures of the curtain
before we can penetrate the patterns and textures
that lie beyond.

The curtain reveals as well as hides

What grasps our perceptions is more significant
than what our perceptions grasp

Each tree is a messenger
We must sit in silence
to receive its message

Diversity and uniqueness are the
Grail entrusted to the Mystery

We live our lives to be
realizations of uniqueness

Uniqueness is the infrastructure that supports all love
(But it is similarities that allow communication)

~~THOUGHTS.WPD~~

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SACPLACE.WPD

04-04-23

ONE DAY. THE HILL HALF HIDES THE CLOUD
ON ANOTHER DAY THE CLOUD HALF-HIDES THE HILL

ORTHOGONAL MANIFESTO



SOCIETY for ORTHOGONAL SYNTHESSES



This is a summons to revolution! Not a political revolution but a cognitive revolution, a revolution in the way we think. Scientists and philosophers in the 20th century have warned that if humanity does not soon develop a new way of thinking it will become extinct.

Our problems today have not come about just from the extremist thinking at two ends of a one dimensional horizontal spectrum, but from one dimensional thinking itself. Our thinking must take off in entirely new directions. We must see how the issues on which we focus in our culture are pseudo issues, mostly about ego and power, that distract us from the real issues that we know are involved in human welfare and survival. While going beyond one dimensional thinking may be difficult for most of us, (and impossible for some of us), it has become sine qua non for our survival.

Traditional thinking, both Eastern and Western has been dyadic, based on such dichotomies as yin/yang, masculine/feminine, good-evil,us/them, with us/against us. While dyadic thinking arises properly from the fact that nature is basically structured around symmetries and their corresponding conservation laws, about a century ago we became aware of a second category of natural laws: Laws of Change, examples being bio-evolution and the second law of thermodynamics. Although we are all daily aware of change, our style of thinking remains locked into the dyads of symmetries. If we call thinking based on symmetries horizontal thinking, then we must develop a thinking **orthogonal** to the horizontal, a vertical thinking with a logic that takes into account the role of the asymmetries implicit in all change.

ORTHMAN2.WPD

ANOMALOUS PHENOMENA

While the epistemology of science readily subsumes phenomena that are frequent, repetitive and reproducible, it has no standard approach for encountering unusual phenomena, the novel, rare, or exceptions to past experience. Listed here are four approaches, one or more of which are commonly employed upon the occurrence^{of} an anomalous phenomenon.

First, the selection approach

This approach is designed to avoid serious consideration of the anomalous phenomena [e.g. flying saucers or crop circles] by demonstrating that two or three selected cases of the phenomena can be readily explained by known physical or biological laws. [The flying saucer report was only the planet Venus, the crop circle was easily made with a tractor]. Since, it is not worth while to spend time and energy to individually explain away all the other cases, it is best to sweep the entire phenomena off the table of scientific discourse.

Second, the ad hominem approach

This approach discounts the phenomena by attacking the observers. The observations are the hallucinations of various pathological types of people. Probably by people suffering from some form of paranoia. Therefore, sweep the subject off the table of scientific discourse, (unless you are investigating pathologies).

Third, the imagination approach

This is the approach of highly imaginative people, adept at putting together conspiracy theories. They are able to explain the manifest portions of the phenomena with ingenious unmanifested phenomena, such as the intervention of alien, extra planetary, higher dimensional, multi-level beings or systems. Their conclusion: Keep the subject off the table of scientific discourse since science is too limited to handle these phenomena.

Fourth, the benders approach

This approach welcomes anomalous phenomena for they can be used to affirm pre-conceived religious ideas or prophecies. However, there is a large selection factor involved regarding which parts of the phenomena are to be accepted and which parts must be "bent" to fit. In this approach interpretation replaces explanation.

Suggested alternative approach

Instead of any of the above approaches, leave all observations on the table, but be skeptical of everything, both the novel and the traditional. Look for patterns in the observations and for parameters common to the observations, or their sub-sets. After all, there is no phenomenon, valid or specious, from which we cannot learn. Therefore, let the table of discourse be full. (Hopefully, if there are enough dots on the table they might self-organize.)

THREE WISEMEN OF THE 20TH CENTURY
WHEELER, WHITEHEAD, WIGNER

WEINBERG

WITNER

JOHN ARCHIBALD WHEELER

Increasing knowledge about detail
has brought an increasing ignorance about plan.

Every law of physics, we think today, goes back in one way or
another to some symmetry of nature.

There is not one law of nature that does not require space time
for its statement.

Ultimately there is no law left--except the law of mutability:
There is nothing that does not change.

Has the universe had to adapt itself from the earliest days to the future requirements for life and
mind? Until we understand which way the truth lies in this domain, we can very well agree that
we do not know the first thing about the universe.

The brain is small, the universe is large. In what way, if
any, is the universe, the observed, affected by man, the observer?
Is the universe deprived of all meaningful existence in the
absence of mind? Is it governed in its structure by the
requirement that it give birth to life and consciousness? Or is
man merely an unimportant speck of dust in a remote corner of
space? In brief, are life and mind irrelevant to the structure
of the universe--or are they central to it?

Matter tells space time how to curve.
Curvature tells matter how to move

The boundary of a boundary is zero.

If you haven't found something strange during the day,
it hasn't been much of a day.

One can only learn by teaching.

Generosity is a stimulant,
not a sedative,
for hatred

- Anon

ALFRED NORTH WHITEHEAD

In its prime each system is a triumphant success;
in its decay it is an obstructive nuisance.

A civilization which cannot burst through its current abstractions
is doomed to sterility after a very limited period of progress .

There are no whole truths; all truths are half truths.
It is trying to treat them as whole truths that plays the devil .

The major advances in civilization are processes
that all but wreck the societies in which they occur.

The art of progress is to preserve order amid change.

Civilization advances by extending the number of important operations
which we can perform without thinking about them.

The paradox is now fully established that the utmost abstractions
are the true weapons with which to control our thought of concrete fact.

Mathematics is the science of the most complete abstractions
to which the human mind has attained.

Human life is driven forward by its dim apprehension of notions
too general for its existing language.

The same kind of education that led us into this cul-de-sac
will not get us out.

Those societies which cannot combine reverence to their symbols
with freedom of revision, must ultimately decay either from anarchy,
or from the slow atrophy of a life stifled by useless shadows.

Ideas won't keep, something must be done about them.

EUGENE P. WIGNER

Physics does not endeavor to explain nature,
it endeavors to explain the regularities
in the behavior of objects.

The more we understand the universe,
the more it seems pointless.

Steven Weinberg

*"The effort to understand the universe is one of the
very few things that lifts human life a little
above the level of a farce, and gives it some of the
grace of tragedy."*

*The more the universe is comprehensible,
the more it also seems pointless.*

DAWKIN'S QUOTE

THE WISDOM OF LI KIANG SAGE OF QUILIN

You must first see the texture and patterns in the curtain
before you can see through the curtain.

Actualization both destroys and creates possibility

There can be no heaven until hell ceases to exist.

The only sacrifice acceptable to the gods
is the superior sacrificed for the inferior.

Diversity is not to be tolerated,
it is to be treasured.

Conflicts arise from similarities
not from differences.

Everything is a special case.

Truth and falsehood reside only in the present.

Knowledge is the name we give to experience we have organized.
Lore is the name we give to experience we cannot organize.

Reality is surrogate eternity, that which we substitute
for what we do not directly experience.

What paradox is to the intellect
mystery is to the spirit.

QUILIN.WPD 04-05-06

THE WISDOM OF PAUL FEYERABEND

Science must be protected from ideologies; and societies, especially democratic societies, must be protected from science.

Anarchism must now replace rationalism in the theory of knowledge.

There is no idea, however ancient and absurd, that is not capable of improving our knowledge. The whole history of thought is absorbed into science and is used for improving every single theory.

External interference may be needed to overcome the chauvinism of science that resists alternatives to the status quo.

No theory, however good, agrees with all the facts in its domain. Facts that contradict the theory must therefore be ignored, defused by an ad hoc hypothesis or rhetorically nudged out of the picture.

It is not logic, but the competitive pressure between tenaciously held and incompatible ideas that makes for progress.

We must have a readiness to sacrifice every perspective the moment it is achieved in order to make room in our consciousness for equally relevant alternatives.

-Antonio T. de Nicolas [Four Dimensional Man]

The other extreme is to build on one point of departure. -the path to extinction.

The increasing distance of the physical world picture from the world of the senses [manifest] means nothing but a progressive approach to the real world.

-Max Planck

How many ^{of} them must be who have smothered the first sparks of contemplation by piling wood on the fire before it was well lit. The stimulation of interior prayer so excites them that they launch out into ambitious projects for teaching and converting the whole world, when ^{all} that God asks of them is to be quiet and keep themselves at peace, attentive to the secret work he is beginning in their souls.

-Thomas Merton, (New Seeds of Contemplation)

THE SPECIES HOMO SAPIENS SAPIENS

See also 2004# 31, # 52

Evolution has produced a strain of organisms, homo habilis, homo erectus, homo sapiens neanderthalensis, homo sapiens sapiens, that appears to be evolving toward extinction. This in itself may not be remarkable, it has happened many times before to other genera. But homo sapiens sapiens, or humanity as it is colloquially called, not only seems intent on self-termination but is creating a crisis that will also result in the termination of multitudes of other species.

Why does the self-extinction destination seem increasingly probable?

- HSS is a species that only **takes** from the earth, gives nothing in exchange.
- HSS is a species that expends its energies, intellectual and physical, designing weapons so that a part of itself can **subdue** other parts. (Or as it prefers to self-delude, to protect itself. Protect itself from what? Only from itself.) Unlike all other species, it is engaged in an internal arms race, building its funeral pyre with nuclear and other weapons..
- HSS is a species that **homogenizes** itself and its contexts. It is the cancer cell of the earth's biomass.
- HSS views itself as **superior** to all other species. While all species are unique and possess special gifts, there is no rationale that uniqueness bestows superiority.
- HSS is **control** oriented. It cannot see itself as an element in any mutually supportive ecology. It must be in charge of all its contexts. It sees survival in terms of power rather than in terms of harmony. But the unperceived paradox is that pursuit of power is the path to extinction not survival.

What has driven HSS to this perception of itself and its relation to the world?

- HSS' self image and world view as reflected and perpetuated in its religions.

And God said be fruitful and multiply, fill the earth and subdue it. Have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moves upon the earth. –Genesis 1:28

- HSS' intellectual view of the world as developed and proclaimed by science:

The more we understand the universe the more it seems driven by blind chance. In such a universe we have no friends, it is therefore in our interest to seek to control it.

All things
 Man is the measure of the universe.
 - Protagoras

HSS does not seek solutions, He seeks contests
 Solutions require alternatives
 Contests reduce situations to us/them, win/lose
 e.g. The class picture: Administration No Flags
 Students Flags
 → US/THEM
 a solution: 2 (or more) pictures

We don't want solutions
 we want win/lose
 games

2 sub-species of HSS are emerging

- 1) Ecological HSS → participation side effect → diversity
- 2) Organism HSS → control, power side effect → homogenization
 need an enemy, opponent

- 1) explores, innovates
- 2) contests, destroys

An Ecology:

From each according to ability
 To each according to need

Paradox: 1) serves 2) why?
 Who has Force controls

These 2 species illuminate

2 species of the laws of change and the laws of aggregation.

Nature's or Brahme's
 HSS's

The developing bi-modality is philosophically:

Ecologists vs Organismists
 an elite, ^{to} control of masses
 ~ brain, arms + legs

Does an ecology
 have a will?
 is it a form
 of quasi-life?

2 forms of quasi-life

Ecological Form vs Organism Form
 {Specialists} Will & Control

Each has a different approach to survival

We note in nature
 that ecologies live
 organisms die

Can HSS create societies as ecologies?

historically we have selected societies to be organisms

We view organisms as "higher" than ecologies.

This may be our greatest error

- 1) How must do we see the world as mystery to be explored?
- 2) rather than as an enemy to be overcome?
- 3) And now comes the view - the world is a set of nodes & links subject to our design for altering it
- 4) A & harmonies to tune to

AN US/THEM PARADOX

There are many modular hierarchies with which we identify ourselves and find meaning. Population modules: me, my family, my clan, ...; Place modules: home, neighborhood, region,...; Political modules: party, country, allies, ...; Belief modules: cult, sect, religion,...; Genetic modules: race, species, genus, ...; and many others. There is even an hierarchy among the types of modules, but assignments of the order in that meta-hierarchy vary by individual choice. It has been noted that the extent of spiritual growth of individuals can be measured by the extent of each domain of modules by which they identify themselves. The child starts with me; the sage ends with an all inclusive domain of domains in which all living beings are themselves but a sub module. We become what we include in our domains of identity.

However, in becoming what we include, we also define and limit ourselves by what we exclude. This leads us to an "Us/Them" view of the world and in the process closes us off from the vast richness of our excluded "Them". But we do not see it this way. Rather we choose to define a "them", not as all that is excluded by us, but as another delimited set with differently ordered modules. The reciprocity of this operation by "them" leads us to our present us/them worldview of two conflicting "us's" and "thems", each cut off from their vast excluded "Thems". We see here how important it is to distinguish between "them" and "Them". Our "Them" contains "them" and their "Them" contains "us". And both "us's" are so limited that it is absurd for an "us" to seek to destroy or convert its "them".

On the other hand, there is one positive aspect to the present us/them world view. Namely, the existence of an "us" inspires the "me's" to move up modular ladders. While armies clash in darkness, the comradery, loyalty, and sacrifice within each army, move individuals to higher modules. Many moving to a module above any existing "us". It is a paradox that conflicts to preserve existing "us's" become paths to transcendence of those "us's". As has been said, Any "us" that seeks to preserve its life shall lose it, while those "me's" willing to sacrifice find greater Life.

What I have clumsily tried to articulate, the poet has made clear: ¹

*Hark the roar grows, the thunders reawaken
We ask one thing, Lord, only one thing now:
Hearts as high as theirs who went to death unshaken,
Courage like theirs to make and keep their vow.*

*Then to our children there shall be no handing
Of gates so vain, of passions so abhorred
But Peace...the Peace which passeth understanding
Not in our time...but in their's, O Lord.*

¹R.E. Vernede, killed in action, 1917

OTHER HSS PARADOXES

Fear of uncertainty

Love of gambling

Us/Them thinking ← Lawyer Think

ANNIVERSARY 70

On the 23rd of May each year I celebrate an event that occurred seventy years ago on this date. I am still unable to articulate fully what that event was, but roughly, I encountered an awareness of a spiritual dimension of the world. I felt overwhelmed by some spiritual presence. I had a glimpse of a reality beyond my material surroundings. I did not understand, but somehow I knew. What was totally strange was at the same time familiar. I recognized a reality that had always been there, but which I had never before perceived. This experience on May 23, 1934 has shaped my life ever since.

In evaluating since, what first happened that day, I would say I received the gift of *recognition*. This is a gift we all have, but paradoxically do not recognize. It is the ability to validate the essence or truth of what we see, hear, read, or encounter. Not inductively or mathematically prove, not to place or locate in our present body of knowledge, but to know must ultimately be reckoned with and incorporated into our being. It is also clear why we eschew our ability to recognize. The synchronic reality in which we live is in many aspects at variance with our recognitions. In order to live our daily lives, the conflicts between them are avoided by turning off our power to recognize. Only as we age and near death do recognized realities begin to replace the ephemeral.

Throughout the years there have been many occasions in which I have encountered or entered some spiritual dimension. And there have been more frequent occasions in which recognition falsified what was around me. And there have been occasions in which I have felt cut off and have longed to be united with that which I know I am a part. And I am never sure whether I am calling for help or Help is calling to me.

What I am trying to articulate here has been better said many times by those who would recognize what I am trying to say. Not only better said in words and poems, but in giving and sharing, in rescuing and healing, and in sacrificing and dying.

Without these realities of recognition the reality of atoms, humans, and stars would not be.

SOME LAWS GOVERNING THE NATURAL ORDER

Traditional thinking, both Eastern and Western has been dyadic, based on such dichotomies as yin/yang, masculine/feminine, good-evil,us/them, with us/against us. While dyadic thinking arises properly from the fact that nature is basically structured around symmetries and their corresponding conservation laws, about two centuries ago we became aware of a second category of natural laws: Laws of Change, examples being bio-evolution and the second law of thermodynamics. Then, a third category of laws—dialectics, governing the interactions between contraries and conflicting principles. And a fourth category governing the interactions between the synchronic and diachronic, between the ephemeral and long range, between the temporal and eternal.

FIRST CATEGORY LAWS: THE SYMMETRY LAWS

- Conservation of energy
- Conservation of mass

SECOND CATEGORY LAWS: THE LAWS OF CHANGE

- The Second Law of Thermodynamics
 - Homogenization aspect, Disordering aspect
- The Principle of Plenitude
 - Occupying aspect, Obstructing aspect
- The Law of Hardening
 - Actualization aspect, Convergence aspect
- Evolution
 - Diversity aspect, Complexity aspect
- Growth
 - Multiplicity aspect, Size aspect

DIALECTICS

- Departure and Return [Chamberlain and Moulton]
- Thesis/ Antithesis | Synthesis [Hegel] [polarization]
- Action | Option
- Extinction | Radiant
- Fragmentation | Emergence

DIACHRONIC | SYNCHRONIC INTERACTIONS

- Packaging | Depackaging [revolution]
- Can demands DO [Ozbekian]
- Memes and Genes
- Archetypes | Games
- Power | Survival

MODULARIZATION
 LAWS OF AGGREGATION
 AND ORGANIZATION

CURRENT TOPICS• COGITANS

4 Thought, Quadrads
 Random Juxtapositions
 Zooming
 Abstraction and Generalization

• NUMBERS

Numerical Triangles and Rhomboids
 Higher order Venn Diagrams
 Explicit|Recursive
 "π → 2" Properties of \mathcal{N}_0 and \mathcal{N}_1 [All lines contain the same number of points]

• COSMIC CURIOSITIES

Curvature and Force [Concave-attract; Convex-repel]
 Clock rate = $f(\rho)$ [Stars older than the Universe]
 Maximum energy transfer rate, c^5/G^2 , $(\alpha\mu S)^{3/2} t_0$, and age of the Universe
 Templates based on c , G , h and m_p or m_e

• ACTION-OPTION LAW

Action vs Achievement
 Action → Dogma → Extinction
 Punctuated Action and Maxwell's Singular Points
 Punctuated Action and Menu creation

• DIACHRONIC |SYNCHRONIC

Necessity for two (or more) species of time
 Menu: Conceptions, Visions, Goals, Ends
 Options: Perceptions, Access, Paths, Means
 The Syn/Dia ratio

• QUASI LIFE

Structure vs Behavior
 Violation of the Second Law
 Archetypes as Quasi Life
 Life, Consciousness, Intelligence

• MEASURES OF MATURITY

Domain of Identification
 Width of Now
 What is allowed on the Table [Openness]
 Sustainment of Uncertainty [Freud]

ORTHO-LIFE AND QUASI-LIFE

A central theme in the exploration of space is the search for life. While we are not exactly sure what life is or the forms it might take, we hold that it must be something like earth life. So we are searching for something like us. A hundred years ago Lowell's canals on Mars suggested canal builders, therefore life. More recently photographs of a "great face" on Mars suggested sculptors, therefore life. Meteorites that have struck the earth are examined for organic molecules which, if present, would indicate life elsewhere in the universe. Radio astronomers searching for signals on the 23cm band, if found, would conclude there must be extra-terrestrial radio engineers, hence life. And currently, NASA is looking for traces of water on Mars, if found, a clue for the existence of life. Apparently there are many ways of looking for life, each reflecting either the context, structure, or behavior of beings similar to us.

But perhaps it is better to search for something that is not too well defined, not too much like us. We must extrapolate from the great diversity of systems found on earth that there must be even greater diversity beyond earth. We must alter what we are looking for from what is familiar to what is strange. We must learn how to ask Mars questions, not earth questions, about Mars. The greater purpose of space exploration is to release us from our highly provincial boxed in view of the cosmos.

However, having proposed searching for the strange as a criterion for exploration, it must in practice be modified. Actually, we are not capable of perceiving what is really different, what is really strange. It might exist, but our senses, our instruments, and our way processing information, all designed from earth experience, would not perceive it. We must first seek to generalize and extrapolate our earth based views of life and living systems in order to construct a more comprehensive net to capture the "strange" systems that may be encountered beyond.

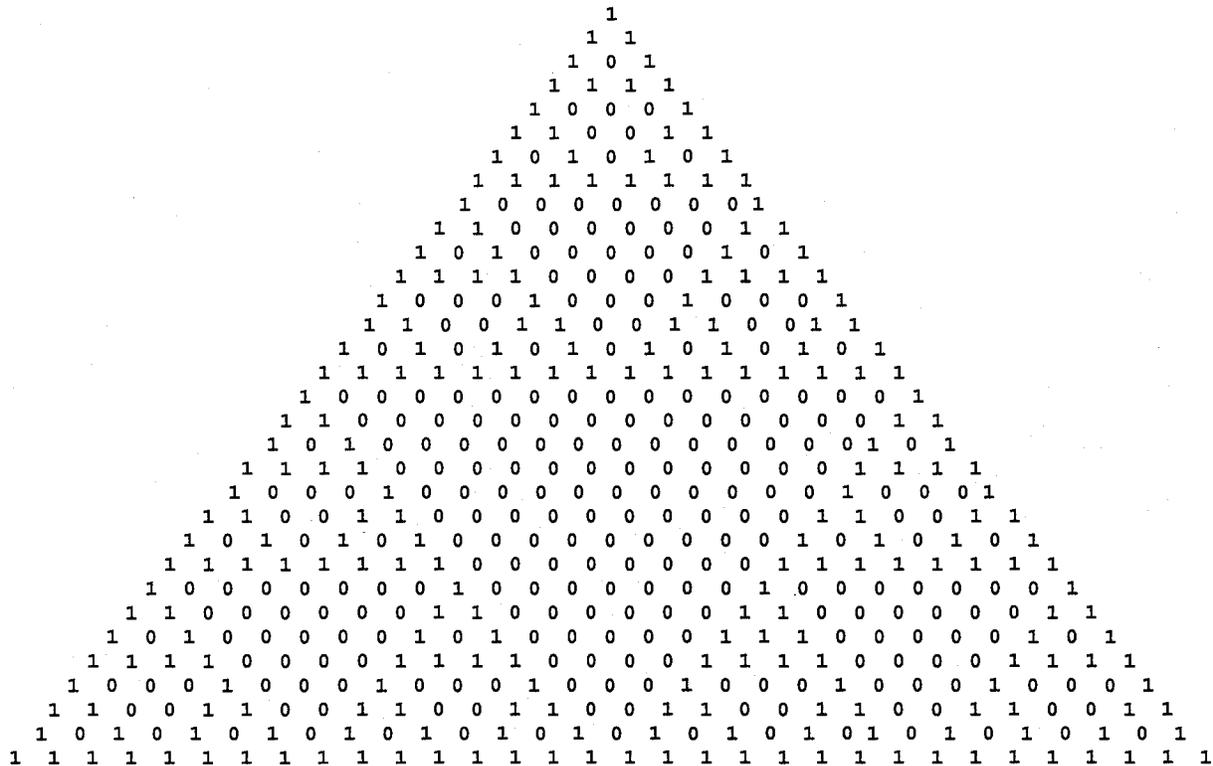
We might begin by looking at the "cousins" of bio life that exist here in our midst. This approach would allow us to eliminate the context parameter, since we and these cousins share a common context.¹ Within this context are systems that share certain structural properties of bio life and others that share certain behavioral attributes of bio life. Those systems that share structural properties, can be designated "Ortho-Life", and those systems that share behavioral aspects can be designated "Quasi-Life"

¹This is not strictly true. The discovery of life forms dwelling in the vicinity of thermal wells at great ocean depths provides a quite distinct context for living systems. The difference in context has resulted in a difference in the structure, chemistry, and metabolism of the organisms.

"CHANGE is taking place beyond our abilities
either to predict or to control and possibly
even beyond our ability to influence."

⇒ CHANGE AS SOME ATTRIBUTE
OR WILL OF A QUASI-LIFE FORM

THE INVERSE PASCAL TRIANGLE
SUBTRACTION INSTEAD OF ADDITION



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YONGHUI3.WPD

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Part I 1998 #40

Part III 2004 #57

June 2, 2004

NUMAPRX2.WPD

SOME NUMERICAL APPROXIMATIONS II

Measured values: $\alpha = 0.007297353$, $1/\alpha = 137.0359895$

$$\log_{10} S^{-1} = Gm_e m_p / \alpha c h = 39.355882$$

where G = 6.67259	Cgs log ₁₀ -7.175706
m _e = 9.1093897	-27.04051072
m _p = 1.6726231	-23.77660191
ħ = 1.05457266	-26.97692349
α = 0.00729735	-2.13683465
c = 299 792 458	10.47682070

$$m_p/m_e = 1836.152756, \quad 6\pi^5 = 1836.118109, \quad \delta = 0.034647, \quad Q = 1.0000189$$

The following approximations or "coincidences" from P.L. Kannappan:

$$\text{Define } \omega = \pi^4 \ln 4 = 135.0376736, \quad \omega + 2 = 137.0376736, \quad \delta = 0.001684, \quad Q = 1.0000118$$

$$\alpha = 1/(\omega + 2) = 0.007297263 \quad \delta = 0.00000009, \quad Q = 1.0000123$$

$$S = 2^\omega / 2\pi^2 = 2.264960107 \times 10^{39}, \quad \text{Log } S = 39.355060557, \quad \delta = 0.000821, \quad Q = 1.0000208$$

$$\Phi = 1.6180339887, \quad 2 - 1.2/\pi = 1.618028, \quad \delta = 0.000006$$

$$\text{from NUMAPROX.WPD 1998 \# 40} \quad e = 2.718281828$$

$$e \Phi / \pi \approx 7/5, \quad \Phi^{-1/2} \approx \pi/4,$$

$$\text{eliminating } \Phi, \quad e = 7\pi^3/80 = 2.71305$$

$$\text{Eliminating } \pi, \quad e = \Phi^{-3/2} 28/5 = 2.70862$$

$$10^5 / 9^3 = 137.1742 \quad Q = 1.001009$$

$$\sqrt{51} = 7.1414284, \quad \sqrt{2} = 1.4142136, \quad 10(\sqrt{51} - 7) - \sqrt{2} = 0.000070 \quad Q = 1.0000495$$

SOME RECIPROCAL

- 1/9 = 0.111111111111111111.....
- 11/99 = 0.111111111111111111.....
- 10/9 = 1.111111111111111111.....
- 19/9 = 2.111111111111111111.....
- 1/99 = 0.010101010101010101.....
- 10/99 = 0.101010101010101010.....
- 1/999 = 0.001001001001001001.....
- 1/9999 = 0.00010001000100010001.....
- 4/33 = 0.121212121212121212.....
- 4/333 = 0.012012012012012012....
- 2/9 = 0.222222222222222222.....
- 11/9 = 1.222222222222222222.....
- 20/9 = 2.222222222222222222.....
- 29/9 = 3.222222222222222222.....
- 2/99 = 0.020202020202020202.....
- 3/9 = 0.333333333333333333.....
- 21/9 = 2.333333333333333333.....
- 3/99 = 0.0303030303030303030...
- 4/9 = 0.444444444444444444.....
- 9/9 = 0.999999999999999999...
- 1/11 = 0.090909090909090909....

10/81 = 0.123456790 123456790 123456790 8 missing
 20/81 = 0.246913580 246913580 246913580 7 missing
 40/81 = 0.493827160 493827160 493827160 5 missing
 50/81 = 0.617283950 617283950 617283950 4 missing
 70/81 = 0.864197530 864197530 864197530 2 missing
 80/81 = 0.987654320 987654320 987654320 1 missing 1/1.0125 = 81/80

101/81 = 1.246913580 246913580 246913580 7 missing
 11/81 = 0.135802469 135802469 135802469 135802 7 missing
 911/81 = 11.246913580 246913580 246913580 2469 7 missing
 19/81 = 0.2345679 012345679 012345679 0123456 8 missing
 91/81 = 1.12345679 012345679 012345679 012346 8 missing
 1/81 = 0.012345679 012345679 012345679 0123457 8 missing

To create a recurring decimal:

abcdcba/9999999 = 0.abcdcba abcdcba abcdcba abc... Equal number of 9's replicates numerator

abcdbca/99999999 = 0.0abcdba 0abcdcba 0abcdcba Add another 9 to denominator, get 0's

1234567890/9999999999 = 0.1234567890 1234567890 1234567890 ...

1234567890/99999999999 = 0.01234567890 01234567890 01234567890 ...

123456789/9999999999 = 0.123456789 123456789 123456789 ...

123456789/99999999999 = 0.0123456789 0123456789 0123456789 ...
= 1/81.0000007290000066339000603685715

9876543210/99999999999 = 0.9876543210 9876543210 9876543210 ...
= 1/1.01249999988609375000142382812599

DIACHRONIC-SYNCHRONIC PART I

The Heisenberg Uncertainty Principle is usually presented in the familiar form:

$$p \times q > h$$

where p is position, q is momentum and h is Planck's constant. But the principle is also often presented in its equivalent form:

$$E \times T > h$$

where E is energy and T is time. This second form displays several implications beyond just uncertainty. For one, there is a basic **trade-off** between energy and time. For example, if T decreases, becomes small, then E must increase, become larger. Conversely, if E becomes small, T must increase. We may view this as a trade-off between time efficiency and energy efficiency. To perform a given operation, say to cross the Atlantic, to fly 100 people across in a brief time requires more energy than sailing them across in more extended time. Our present culture has become obsessed not only with movement but with rapid movement. The more we insist on our instant satisfactions, the more energy it costs. And a large portion of our present energy consumption goes not just for production but for time efficient production.

There may be several causes for our present obsession with time efficiency and its prime manifestation, speed. Perhaps our feelings about time derive from a technological imperative. The nature of technology itself forces the rate of the ticking of the clock to increase. Or perhaps there is a widespread feeling that the time remaining for us is short and we had better rush to get as much out of life as possible. Such feelings may have a religious source from certain interpretations of apocalyptic writings. Or they may have a non-religious source in a post-Darwinian world view that now is all there is. Or they may have a scientific source in climatic models of an impending ice age. Or maybe the clock is really ticking faster as some cosmologists have proposed.

Whatever the causes of an accelerating clock, there are many consequences in addition to an impending energy crisis. To examine these consequences it is useful to introduce two terms: diachronic and synchronic. By diachronic will be meant those principles, ideas, and activities that have persisted over centuries and millennia. By synchronic will be meant those ideas, values, and activities that are the center of focus over some short interval of time. Both terms might be described by the interval of time they adopt as being of relevance, what could be called their notion of "*now*". The greatest width of the diachronic *now* for western civilization extends from the beginning of written records, Egyptian hieroglyphs, Babylonian cuneiforms, through Greek and Roman times, up to the present. But diachronic *nows* also extends into the future, with speculations and visions of where we can or should be generations in the future. The synchronic *now*, on the other hand, is usually limited to the present decade (or less), or at most extending to the lifetime of one generation. The lengths of both diachronic *nows* and synchronic *nows* vary. However, both appear to be synchronic selections, selected by synchronic forces such as the media.. The result is the paradox of a **current** diachronic *now*.

Most human activities and occupations tend to emphasize either the diachronic or synchronic, but all have components in both *nows*.. The activities and occupations listed below are placed in columns according to their emphasis in current American culture.

DIACHRONIC ACTIVITIES

Education
Exploration
Religion
Research
Science

SYNCHRONIC ACTIVITIES

Economics
commerce
farming
finance
manufacturing
Communication
transportation
Entertainment
Health
Litigation
Politics
military
war

DIACHRONIC OCCUPATIONS

Architect
Artist
Educator
Engineer
Environmentalist
Explorer
Philosopher
Scientist
Statesman
Theologian
Writer

SYNCHRONIC OCCUPATIONS

Accountant
Doctor
Farmer
Fireman
Lawyer
Merchant
Minister
Policeman
Politician
Soldier

A particular society at a particular time can be characterized by the relative emphasis placed on diachronic and synchronic activities, that is by diachronic/synchronic ratios.

The diachronic is like a cultural bank. The synchronic makes withdrawals and deposits, receives loans and repays and sometimes does not repay. But ultimately the synchronic is accountable to the diachronic.

Paraphrasing Wheeler's description of general relativity,

The diachronic designates the direction in which the synchronic moves,
but the synchronic bends the diachronic.

Masato Kawahatsu
1909 Bush Street
San Francisco, CA
94115-3204

June 10, 2004

C. G. Jung said there are no accidents.

I attended your inspiring Shodo class in Santa Rosa last year
and discovered Arigato Gozaimasu, thank you 100 times a day.

I have since learned:

This thank you is not for a specific gift nor is it directed to a particular person
The arigato transcends things, persons, places, times, and is even directionless.
It incarnates an attitude that is more than gratitude.
It opens consciousness to ineffable worlds.
It heals, it brings happiness.

And though I hope I am not violating the above,
let me thank you personally for the gift you have brought to us.

Arigato Gozaimasu

Albert Wilson

P.S.

My address is no longer 3454 Primrose Ave, Apt B
It is now 7327 Occidental Road
Sebastopol, CA 95472

OUTRAGE.WPD

June 10, 2004

EDITOR,

The Administration is correct, the incidents at Abu Ghraib and elsewhere are really the work of only a few bad apples. These bad apples, however, are not the troops following orders, complying with policy. They are the legal minions who legalized circumventing U.S. laws, the Geneva Conventions, and our Constitution in order to expedite the Administration's agendas. Americans are right to be outraged at legal counsel that betrays what we fought for in two World Wars and redirects our future into a path 180 degrees from our traditions. Most of us do not find proscriptions against torture "obsolete and quaint". At Nuremburg II let us hope that the real war criminals are the ones who stand trial.

A. Wilson

Tortured logic

White House needs to condemn warped justifications for abuse

So when did the Geneva Conventions become such stumbling blocks in matters of national security? When did federal law banning the use of torture in interrogating prisoners become such an impediment to justice?

More to the point, why hasn't the White House refuted the legal arguments made in a series of 2002 memorandums that justified an end-run around international humanitarian law?

These are some of the questions Americans are left with in the aftermath of the latest international embarrassment — news that Washington attorneys conjured up opinions to justify why the Bush administration is not bound by global laws against torture.

The outrage expressed by human rights organizations is justified. And the White House hasn't helped matters by failing to take a principled stand.

Attorney General John Ashcroft's testimony before Congress on Tuesday only muddied the debate. He contended that the president had not issued any order "that would require or direct the violation" of the Geneva Conventions. But he did little to condemn the memos or explain why such legal opinions were sought in the first place. Much of the hearing focused on the attorney general's unwillingness to release the memorandums to Congress.

Ashcroft tried to draw a distinction between the memos, which provided theoretical justifications for torture, and presidential directives to put such theories to use. Yet the public is left to draw its own conclusions about the possible connections between these theories and the abuse of Iraqi detainees at Abu Ghraib prison.

President Bush needs to take a swift and firm stand against such lame excuses for bypassing international law. If nothing else, he should do so for the sake of U.S. troops abroad. If the United States can use such reasoning to torture prisoners, certainly its enemies can as well.

The rules of the Geneva Conventions were built on principles respecting the rights of the human being even during war time. It wasn't long ago that this was something America would champion — not circumvent through the parsing of words and the convenient suspension of national values.

THE WISDOM OF LI KIANG SAGE OF QUILIN II

Go to the summit of the hill, look around, and become empty.
Go to the heart of the valley, look up, and be filled.

Perceiving beauty will waken you,
But beauty can be perceived only if you are awake.

The Search is not for answers, but for questions;
Not for solving mystery, but for discovering greater Mystery.

The Search triumphs only in continuing.
It is defeated when it halts, releasing the dogs of dogma.

Knowledge advances when more questions arise than answers are found.

Lineages, whether of power, wealth, or position destroy options

When ^{at} alternatives are destroyed,
The ^{remaining path to} last option is extinction. ^x

Evil is born when power exceeds wisdom.

You become like those you fight, so
Select enemies you respect and admire.

It is easier to describe the messenger
Than to decode the message.

Death comes when body is no longer an adequate container for spirit.

QUILINZ, WPP

04-06-14

THINKING STYLES

(by profession)

LAWYER THINK:

Seek the facts that support a selected direction and ignore those that oppose.

POLITICAL THINK:

Let the direction drive the facts.

SPIN THINK:

Obscure the facts and vary the direction

SCIENTIST THINK:

First seek the direction that is indicated by ^{"the"} ~~some~~ facts, then after a direction emerges ignore those facts that do not fit.

CLERGY THINK:

No need for facts, we know the direction.

MILITARY THINK:

Facts overrule any selected direction.

ARCHITECT THINK:

Start with the essential facts and create as many directions as possible.

ENGINEER THINK:

Every direction has an associated set of essential facts.

MERCHANT THINK:

Package selected facts with the profit direction.

ORTHOGONAL THINK:

Let all the facts define multiple directions.

Lawyers cannot solve the water problem.

Force, Law:

Fighting or adjudicating over what exists

Science, Engineering

Creating more^{##}

SATELLITES THE MOON AND THE MAYANS

One of the puzzling questions about the Mayan calendar and their system of time has been the origin of their 260 day "tun". This period does not seem to have an explicit astronomical basis, as does their "haab" which corresponds to our year. But the tun was as important as haab in the Mayan reckoning of time.

It has been shown in a previous scrap [2000 #43] that the tun could have been the product of their vigesimal, base 20, number system and their selection of 13 days for the week. The origin of the latter could have been the close resonance between the earth's Schuster period¹ and its rotation period. It was noted that the error between seven rotation periods of 86,400 seconds and 120 Schuster periods of 5059.61 seconds is 2353 seconds. While the error between thirteen rotation periods and 222 Schuster periods is only 33 seconds. This would make a good case for a 13 day week instead of a 7 day week, provided that the Schuster period is the geophysical cycle basic to the week.

Comparisons for the tun:

Twenty 13 day weeks = 260 days; the error to 4440 Schuster periods is 668 seconds.
 Thirty seven 7 day weeks = 259 days; error to 4423 Schuster periods is 1055 seconds.
 [In both cases the Schuster values exceed the rotational values]

But there is another possibility related to the tun.

The lunar sidereal period is 27.3217 days. Nineteen of these periods equals 519.1123 days. This is an error of 0.8877 days in two tuns or less than a half day per tun.

So if we wish to pick a number of days that closely represents several cycles.

From the Schuster cycle and a 7 day week	259 days
From the lunar sidereal cycle	259.56 days
From the Schuster cycle and 13 day week	260 days

The tun is a useful choice.

¹ The Schuster Period, t , is the limiting value in Kepler's third law, $t^2 = d^3/GM$, when the distance, d , is taken as the distance from the earth's center to its surface and where M is the mass of the earth. It is the time a satellite would take to circle the earth at the surface if the earth were a smooth sphere with no atmosphere. Or if there were a hole through the earth, it is the time an object would require to make a round trip through the hole.

A DREAM AT THE EQUINOX

As well as I can recall, I am on a plateau or mesa along with Sha Tzu and some vaguely familiar man. We are walking along a difficult path, large rocks and much shrubbery. We come to the edge of the mesa and almost fall over the very steep cliff like edge. Across a canyon is another mesa, a little lower. On top are people farming with crude instruments and tending cattle. The man who is with us suggests we take a path to the left going along the edge of the cliff. We start but after a few yards decide the sloping rocks and steep cliff were a dangerous combination, so began to return by the "inland" path by which we came.

On the return we encountered a central Asian type of man, Afghan?, Tibetan? ? The vague man we were with knew him and told us there was a cave nearby. We all entered and walked down a long tunnel. Then turned off to the right into another tunnel which later sharply turned left. We followed this tunnel until its end and found we were at the same cliff we had reached when on top of the mesa. And there across and below were the same people tending crops and animals. Again we returned and went back to the first tunnel. This time our Asian type guide led us to a room containing several other men. One of them took me to a huge pile in the center of the room. It was covered with canvas. He lifted the canvas, took a shovel and put a shovelful of the stuff in a large pot. He said that the stuff was wet but as soon as it dried it would explode and that its explosion would set off all the stuff in the pile and would destroy everything on this side of the world. He said there was another similar pile on the far side and that the explosions of the two piles were coordinated to go off at the same time.

Here in the midst of these suicide super-bombers, I was aghast not knowing what to do. The man with the shovel then handed me a sort of parchment which he said was a cat skin. I was to unroll it and read what was written on it. Then copy it to another skin. I was having great difficulty with the unrolling when I woke up.

BILLTR1.WPD

June 21, 2004

Hi Bill,

Yes, I am missing Stan more than ever. We had our weekly lunches with Don, a retired Anglican priest (and heretic like me), and with Tom who had worked with Stan on global pollution problems. It was like our old RAND lunches, updated to new problems and "we told you so" about old problems. Stan and I tried to describe for the others the golden days at the old RAND. And they were golden. We dreamed of a new RAND with no agendas to support only to explore and search for deeper explanations for things. We really needed you to be there. But all has passed away. Stan has left us for encountering challenges more worthy of his powers, and Don has moved to Lincoln Hills to become the recluse he wanted to be, meditating and studying. So I am left here with broken down computers, and stacks of unfinished essays and half baked ideas.

Donna always used to say that sometimes it is years between writing the first sentence and getting the idea for the second sentence. She was understating. It sometimes takes decades. But, thanks to the Bush Administration, we are seeing more clearly things we suspected 50 years ago. So now the second sentences come within minutes of the first sentence. We really owe a debt of gratitude to the Bushido Bastards, through their obsession with secrecy they have unveiled the real problems. One of which was the one that concerned Einstein. "If mankind does not find a new way of thinking, it is doomed to extinction." So, how do we get out of our cognitive box? That was a central first sentence at our lunches. I hope you have some ideas.

Tom, I, and some others are carrying on with what we call "self-organizing syntheses", (whatever that means). Stop connecting selected dots. Leave all the dots on the table and see which ones self organize to indicate a direction or make a picture. We noted that the style of legal thinking is to select those dots that indicate a desired result or direction. The style of scientific thinking is to first let a group of dots indicate a direction, then remove from the table those dots that do not support that direction. The traditional style of religious thinking is to forget about dots altogether and proclaim the direction. Today the spin meisters hide and invert the dots and vary the direction. No wonder Einstein was worried.

So we invite you to establish the Colorado chapter of S.O.S. dedicated to Self Organizing Syntheses. We are calling this approach "orthogonal thinking" to differentiate it from Karl Marx and Hegel's thesis, antithesis, synthesis loop. At the moment we are not looking for answers or solutions, only for deeper questions and unsuspected directions. But remember, as Groucho (the other) Marx said, "If it's not absurd, it can't be profound."

Stay in touch

love,

AL

IN MEMORIAM

THOMAS GOLD

Thomas Gold, famed astronomer

Thomas Gold, a renowned astronomer famed for controversial theories on everything from the origin of the universe to the inner workings of the human ear, has died. He was 84.

Gold, professor emeritus of astronomy at Cornell University, died Tuesday at Cayuga Medical Center in Ithaca, N.Y., after a long battle with heart disease.

Dedicated to pursuing his ideas wherever they took him, Gold ranged across fields as diverse as cosmology and astrophysics, lunar and terrestrial geology, and physiology and microbiology. Gold's colleagues were continually startled by his ability to propose outrageous theories that provoked intense discussion and new discoveries, often proved to be right.

He is perhaps best known, though, for an idea that ultimately

4-06-23
DEATH OF T. GOLD

mately proved to be wrong, but nonetheless stimulated important research.

Working with astrophysicists Fred Hoyle and Hermann Bondi in the 1940s at Cambridge University, Gold developed an alternative to the Big Bang theory, proposing that the universe had no beginning or end, but rather expanded throughout time by continually creating new matter.

In the end, attempts to validate his theory led to its downfall and the acceptance of the Big Bang hypothesis. But along the way, scientists discovered how different chemical elements are formed in the centers of stars, a cornerstone of modern astrophysics.

Undeterred, Gold once said, "in choosing a hypothesis, there isn't any virtue in being timid."

Gold showed no timidity again in a 1968 explanation of why pulsars pulse.

Discovered that year, pulsars are objects in deep space that produce regular, repeating bursts of radio noise. Gold developed a theory that the objects were incredibly dense neutron stars spinning like tops. Like the light from a lighthouse, he explained, beams of radiation emitted from the stars' poles sweep in a circle, appearing to pulse on and off when the beam intersects the Earth.

At the time, his theory was considered so ridiculous that he was not even allowed to present it at a conference. But observations of a pulsar in the Crab nebula showed that the pulses were slowing down, just as he had predicted, and the theory of pulsars as spinning neutron stars went on to universal acceptance.

Time proved Gold right again when he challenged the dogma on how the human ear distinguishes tones, one of his largest leaps across scientific disciplines. In the 1970s, after 30 years of dismissing him as a meddling outsider, audiologists discovered tiny resonating "hair cells" in the ear that proved his idea was correct.

"I enjoy shaking the scientific community by the neck," he once said.

Born in Vienna, Austria, he fled Hitler to study at Trinity College, Cambridge, where he received both his bachelor's and master's degrees.

World War II prevented him from continuing on to his doctorate; instead, he developed new radar systems for the British Admiralty.

After the war, Harvard hired Gold as a professor of astronomy, despite his lack of a doctorate, and later he moved to Cornell. He did not receive his degree from Cambridge until 1969, eleven years after he left England.

—Los Angeles Times

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INTRODUCTION TO NOTES

In the physical world we observe that there are aggregates of all sizes and degrees of organization. There are clusters, galaxies, stars, planets, and molecules, atoms, quarks, neutrinos. In the bio world there are kingdoms, phyla, genera, species, and in the societal world there are civilizations, cultures, nations, humans. We have developed representations of these aggregates in our languages and symbols. But somehow we have failed to have given sufficient names to all the aggregates of **thought** that accompany and underlie these representations.

I daily encounter this lack wondering how to classify and organize ideas that I jot down on 3 by 5 cards. I need some names for the various levels of vagueness of these ideas and how to assign them to different aggregates. At the concrete and big end of the idea spectrum are compendiums and treatises. As we go down in size from books to essays and on to quotes we go up in both variety and specificity, yet all the time maintaining communicability. But when we go below the essay and letter level, we run out of names. This is probably because at the pre-communicable level we are entering the level of creativity and creativity being private, has no common nomenclature.

I have attempted to organize my material by defining an **essay** as a communicable and publishable document regarding some topic. A **scrap** as a one page communicable draft on some topic. And a **note** as a paragraph or single sentence describing a half baked idea. But the real nomenclature problem emerges below the level of notes. What to do, not with half baked ideas, but with ideas that have never even been put into an oven. And what to do with inscriptions on cards which have been stacked away for a few days that no longer communicate anything to me (and certainly to no one else). The pragmatist will here ask, why are you doing the cards at all? Good question.

My answer has to do with the nature of thought. There are two kinds of thoughts: Those that start with given propositions, send them through the sausage grinder of logic and come up with conclusions. The input propositions, the logic grinder, and the output conclusions are all in the domain of communicability. That is, are imprisoned by existing language. The second kind of thought is a glimpse, a fleeting image, a sudden insight into something that seems to have been there all along, but is finally recognized for what it is. Can such fleeting thoughts and glimpses be captured? Most of the time they are lost, but when they occur we remember something special has happened. It appears that our cognitive nets have the wrong texture to capture most of these fleeting images and ideas. Creativity is the ability to capture them by articulating them, drawing them, or singing them. So, the 3 x 5 cards have become my net for hoping to capture fleeting ideas and articulate them with existing words. And the subsequent notes are translations of the marks made on the cards whenever I can make any sense of them. (Making sense is an awful filter) But the principal problem is with existing words. The translations are always requiring neologisms. But it must be that an idea is not of the fleeting species unless it requires a neologism.

A matter of modules

grasped thoughts
articulated thoughts

What constitutes an idea?

a concept?

a theory? , an hypothesis?

a school? , a worldview?

What are the links?

consilience

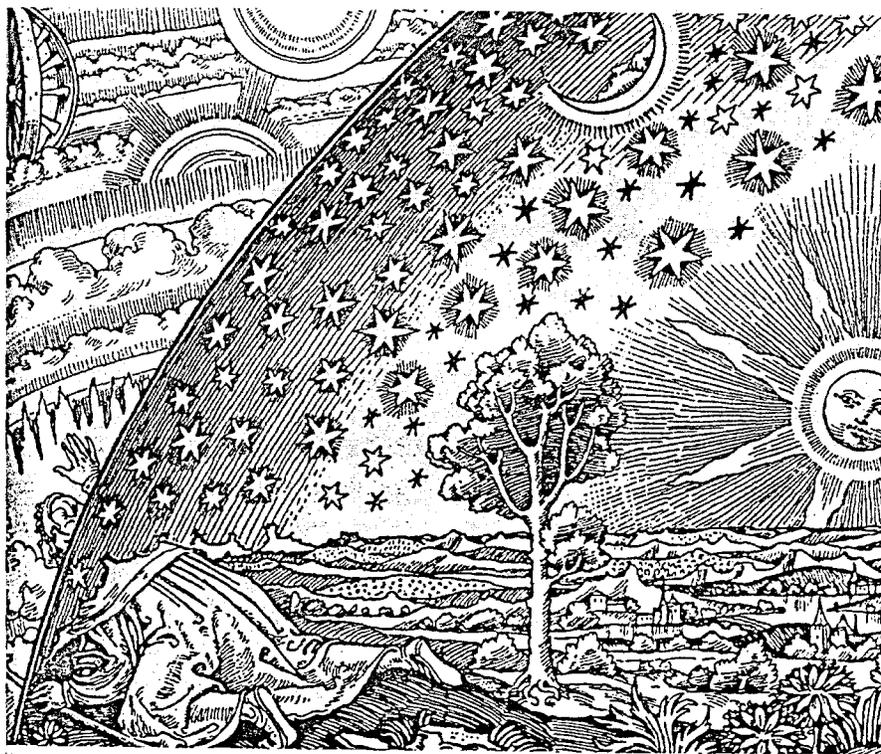
absilience

A PERSONAL CONFESSION

School was always painful for me. I had an unconscious resistance to inculcation into the mores of the culture. I felt I was being educated to **fit the form**, or ОПРАЗОВАНИЕ, as education is called in Russian. Schooling would have been impossible for me except that I discovered a refuge, paradoxically, in the subject matter itself. This was especially so in mathematics and in the abstract and diachronic aspects of several subjects. Math, science, history, Latin, all allowed escape from the current synchronic viewpoints that I have always been very uncomfortable with.

From time to time I won awards, but I became fearful of success, and sought anonymity. I have tried to psychoanalyze this fear. Was it a fear, in having attracted attention to myself, of generating envy and disapproval by others? Or was it not wishing to lose the privacy of thought I felt to be precious? Or was it wanting to be detached from a culture that at some level I felt to be hypocritical and seriously flawed? I finally came to the conclusion that everything from human understanding to the cosmos itself was **unfinished** and I wanted to be on the side of openness to continue. I was basically a searcher, repulsed by dogma, and found that reducing my associations with the institutions of the current order facilitated the search. But, of course, in practice this is impossible for no one can completely escape the box. Nonetheless,

Anonymity Advances Automomy



Control of one's ^{own} time is the ultimate ^{freedom} liberty

The more space you control [own]

The less time you ^{can} control

July 6, 2004

THE EASTERN HILL *See 2005 #16*

Sometimes when viewing hills to the east, we feel that our destination lies beyond them. Not in the valley on the other side of the hill, but beyond the hill in some unknown dimension. Our view sweeps up to the ridge, the apparent summit, then the world splits into two worlds. One world goes over the hill into the valley beyond and on over the next hill and on and on, following the surface of the earth, a finite sphere with closed positive curvature. But the other world departs from the summit and bends upward into a different space, into an open infinite space of negative curvature. While both of these worlds are real, we live mostly on the closed world and only from time to time get a glimpse of the open world, as perhaps when viewing a full moon mount above the ridge into the infinite open space.

July 10, 2004

WHAT PROCESS CREATES THE FUTURE?

I spend some time each day and night in a "twilight zone" of semi-sleep, back and forth between the "real" world of continuity and contiguity and the many other worlds in which time and space are fragmented and events float detached from any coherence or consistency. It is like passing back and forth through the reflecting surface of a pool or through a looking glass. On one side is the ordered world we call reality, on the other countless disconnected scenes and events yet to be filtered and assembled into a pattern that can pass through the looking glass into the dimension we call time. What processes organize these random elements into the happenings that occur in the real world? Is there a divine "Selector" who creates the patterns and the archetypes that subsequently occur? Or do we ourselves select and organize the elements? Or does the **selection** become the **selector** that organizes the elements for the next selection? Or do the random events just self organize?

A DREAM

This morning I had not had the opportunity to see the paper so asked a young boy who was reading one, "May I please just for a moment see what is on the front page? I just want to see what the headlines say." The boy handed me the paper. I folded it back so I could see the front page. I was amazed there were no headlines. There was not even one word of print. Instead the first page was covered with a sand colored map that covered the Middle East, Saudi Arabia, Yemen, Jordan, Iraq, Iran, etc. The page was a yellowish sand color, but glowed with a strange glow. For some reason, I do not know, I had a code book that told me what this front page message meant. **The Middle East was to explode into an extended war that would include nuclear weapons!** I woke up very disturbed.

Our Memories change the past
Our Actions change the future

ONTOLOGICAL ALTERNATIVES ¹

1) Our modes of perception, whose products we call facts, are limited to but portions of a few of the many dimensions and layers that constitute the **world**.

2) Our modes of thinking which are primarily dyadic, reduce concepts and propositions to dyads such as: true//false, exists//not exists, here//there, subject//object, us//them,....and on to such dichotomies as phenomena//noumena, diachronic//synchronic, etc. This way of thinking, while probably a derivative of our two hemisphere brains, imposes an avenue to reality that precludes access to numerous alternative possibilities.

3) Our modes of processing and organizing experience have projected a contiguity and a continuity onto the world that may be illusory. The result is a *monoveritas* world view that the world is one self-consistent coherent whole. For example, space and time may not be contiguous or continuous, but contiguity and continuity are imposed on them in order to unify and simplify our experience of reality. Or space and time may have no existence except as human mental stage settings constructed in order to fabricate a reality consistent with our modes of perception and thinking.

4) Our cultural, societal, and political organizations reflect our monoveritas world view. For science there is One Truth expressible by a "theory of everything"(eventually). For religion there is One God, (one for each religion). For political structure there is Ein Volk, Ein Reich, Ein Führer; beside the importance of being Number One.

Recently a crack has developed in the walls of humanity's cognitive monolith. This in the form of the concept of "multiverses" to replace our traditional universe. Both quantum mechanics and cosmology are having difficulties trying to package everything into one self-consistent bundle. Hence Parallel Universes are postulated to account for critical improbabilities in a one universe picture. But this difficulty was recognized millennia ago by ancient Hindu sages. They did not, however, come up with the idea of parallel universes, but with the idea of Serial Universes, expressed in terms of the Lifetime of Brahma, the creator. Brahma and the universe he creates live for one hundred Brahma years, then at the end of that time Brahma dies and his world disappears to be replaced by a new Brahma and a new universe. When we do the arithmetic, it turns out that the lifetime of a Brahma is 156×10^{12} earth years. With this yardstick and our current estimate that the universe is now 136×10^8 years old, we are stuck with this world for another 155.9×10^{12} years.

¹ It is not necessary in this speculative essay to rigorously define terms that are used interchangeably in ordinary discourse: We shall not differentiate between such terms as reality, world, cosmos, and universe... Although there may not exist anything corresponding to our concept of "a whole", we here use the term **world** to designate such a hypothetical whole.

INBOX.WPD

July 28, 2004

THE INBOX ON MY 86th BIRTHDAY

This birthday I have received the most wonderful birthday gifts ever. As Confucius elaborated, there is such great joy in hearing from old friends. And I have heard from several, some who have been lost from my address book for years. Phone calls and emails from some near and from some far, and from some who I felt had forgotten our friendship. All of this has reminded me that along with our great treasures of compassion, wisdom, freedom, and mystery is the treasure of our friends; those with whom we share all the other treasures.

But this is not all. I met two new friends today, not in person, but in reading what they said in Boston. One, a man whose roots join Kenya and Kansas, Barack Obama, the keynote speaker at the Democratic Convention. His speech will go down along with Lincoln's Gettysburg Address, the Declaration of Independence, and the Federalist Papers as part of the holy scripture that defines America. Saint Paul said that the organism must die before it can be reborn. We have been in that period of death, but today (on my birthday) our rebirth was reborn.

The other, a twelve year old girl from California (the state that writes the script for tomorrow) who organized a kids political movement. And in addition spoke out honestly about how all of us should be held to the same standards, including the vice-president of the United States. The seeds of America's renewal from Kenya, Kansas, and Kids is going to take us far beyond just a correction of recent errors, it gives us a new vision, a new "American Theophany".

Yes this has been a great birthday. And several new 3x5 cards have also been thrown into my INBOX.

- Nodes with hooks create aggregates, that is self-organize. Our task is to identify the many species of hooks (forces) that we have overlooked. [There are more than four]
- Not all dimensions are equal. Some have pawls (e.g. time) and therefore irreversibility. Others are sans pawls (eg space) and are reversible. Current models of space-time ignore the importance of this difference.
- An epistemology is a net. It captures some phenomena and lets others slip through. We need to develop an epistemology with variable spacings to see how the world changes with the texture of the net.
- Consilience discloses parallels; absilience discloses parameters.
- In critical thinking, when should we replace elements with a set? And when should we replace a set with subsets?

SOME JUXTAPOSITIONS

HISTORIC w DIACHRONIC

History is the record of synchronic persons and events that have made a big splash. The diachronic is the trans-cultural knowledge and wisdom of the human species, including all its spatial and temporal contexts. How are these two records related? For the most part, the diachronic has not been built on the historic, but has been largely fed by invisible events and overlooked people. On occasion, however, a splash does become diachronic, as with Newton's discovery of the law of gravity. While the development of the diachronic is abetted from time to time by contributions from the synchronic, it has its own life and direction largely independent of the synchronic. This is not to say that the synchronic does not frequently attempt to "bend" the diachronic for synchronic purposes, but this always fails. For the diachronic in the course of time corrects the deviations that the synchronic seeks to impose. In this sense, the diachronic is not exclusively in the hands of humans, as is history, but is a record shared with some trans-human will. In short, human knowledge and wisdom transcend what is recorded as history.

It is consilience that make^s metaphor possible.

It is absilience that reveals parameters.

Our synchronic role is to serve.

Our diachronic role is to search.

In early life we learn to serve, to participate. In later life we learn to explore.

"Old men should explore" —T. S. Eliott

Martin Luther King deplored the **deadliness of gradualism**.

Herman Kahn said that **reality has outstripped experience**.

Are these statements contradictory, complementary, or orthogonal?

August 8, 2004

REPRESENTATIONS OF EXPERIENCE

There are four general categories by which we create representations for our experience. Each of the four communicate ideas, images and feelings, but the emphasis, precision, and comprehensiveness of each mode is different. And all truncate the experiential essences they attempt to symbolize.

I) LANGUAGE

The first category within language is **spoken language** which evolved so as to directly communicate our common experiences with each other. Over time spoken language, through alphabetizing, added **written language** which led to indirect communication and the keeping of records. Parallel to the alphabetizing of spoken language, and probably centuries before, sets of inscribed glyphs and icons were developed to communicate and keep records, creating a **symbolic language**. In all three forms the intent was to create a representation descriptive of, and as much as possible isomorphic with, common experience. And from these domains of communication, direct and indirect, spoken and written, arose the consensus that we now consider to be reality.

II) MATHEMATICS

A second category of representation arose from the **quantifying** of experience. Counting introduced number and arithmetic, measurement introduced dimension and geometry and from the marriage of arithmetic and geometry subsequent mathematics was born. Mathematics can claim a precision and specificity greater than other representations, but is limited in its ability to encompass non-quantified experience. Mathematical symbols are isomorphic to referents within many contexts of application. That is, a single equation may precisely represent the structure or behavior of many different systems. This is paradoxically not a one to one isomorphism but a one to many isomorphism.

III) MUSIC

The third category of representation, unlike language and mathematics, communicates **feeling** rather than ideas. The creator of music may have no specific image or message in mind. What the music evokes or communicates may be quite different for each player and each listener.

IV) FORM

The fourth category of representation, like music, is public in media but private in message. By form as representation we mean such creations as architecture, sculpture, landscapes, gardens, etc. These creations, aside from their utilitarian aspects, are images that communicate **feelings** and are therefore representations of various private mental and spiritual experiences. Art is a creation that either seeks to isolate and emphasize some aspect of what it represents, or render its referent to be but one aspect of some larger abstract entity. Every form transmits many messages. Whatever the intent of the artist's form, the receiver selects a message and interprets it according to his/her own code book. Thus a form, like a mathematical equation, is a one symbol to many experiences representation. But unlike the equation, it is neither specific nor isomorphic.

SYMBOLS

RITUAL - BONDING
OTHER?

August 8, 2004

Dear Bruce,

Thank you for your birthday call. I am sorry I was not at home at the time so as to have had a chance to talk to you and hear how you are doing. As for me, I had a heart attack in April of 2003, but am coming back, but it is slow. I had eye surgery for cataracts last month and can see somewhat better. My hearing is still bad, but I have heard of a new approach called "soundbridge", which I want to investigate.

Old age is debilitating but it is also a blessing. It enables one to focus on the really important things and not have to chase around every day in pursuit of the trivial. I believe it was Rudolf Steiner who said that life has two parts, the first to serve, the last to search. I am not so able to serve as I once was, so have turned to the Search, exploring the great spiritual mysteries that are the contexts to our material existence. But you and I both understood and shared many of these ideas long ago.

Yes, much more water has flowed under the bridge since we were flooded in Topanga Canyon. Many have been born and grown up, others have passed away. But what is important is our love and compassion for one another, and those glimpses of the Greater Truth we are all blessed to see from time to time.

I hope all is well with you in every way. I send my respects and best wishes. And please forward to your three wonderful children, a portion of whose life I had the blessing to share, my affection and hopes for their futures.

FORMULAE: RECURSIVE TO EXPLICIT¹

Recursive formula: 1) $A_n = j A_{n-1} + k A_{n-2}$

To derive a solution, assume $A_n = r^n$
 $r^n = j r^{n-1} + k r^{n-2}$
 $r^2 = j r + k$

Characteristic polynomial: 2) $r^2 - j r - k = 0$

whose roots are: $p = (j + (j^2 + 4k)^{1/2})/2$, and $q = (j - (j^2 + 4k)^{1/2})/2$

Hence, $A_n = p^n$ and $A_n = q^n$ are solutions of 1)

that is, $p^n = j p^{n-1} + k p^{n-2}$ and $q^n = j q^{n-1} + k q^{n-2}$

But a constant times a solution of 1) is also a solution of 1). i.e. if c and d are constants,

then $A_n = c p^n$ and $A_n = d q^n$ are solutions.

Also the sum of two solutions is a solution, therefore, $A_n = p^n + q^n$ is a solution.

Combining the above, noting that $p = p(j,k)$ and $q = q(j,k)$, we get,

Explicit formula 3) $A_n = c p^n + d q^n$

as the form of the most general formula for A_n .

However, to determine c and d the initial values of 1) must be known. For example:

If $A_0 = 0$, $n = 0$, then $c + d = 0$ and if $A_1 = 1$, $n = 1$, then $c(p-q) = 1$

giving, 4) $A_n = (p^n - q^n)/(p - q)$,

Which is the most general explicit equation for $A_0 = 0$ and $A_1 = 1$

[note: $p - q = (j^2 + 4k)^{1/2}$]

¹ [see Anderson's DISCRETE MATHEMATICS, p 220ff]

THE CASE OF EQUAL ROOTS

When the roots of the characteristic equation

$$2) \quad r^2 - j r - k = 0$$

of the recursive equation 1) are equal, then 2) may be written in the form

$$(r - t)^2 = 0 \quad \text{or} \quad r^2 - 2 r t + t^2 = 0$$

Hence, $j = 2 t$ and $k = -t^2$ i.e. the solution $t = j/2$. Equation 1) then becomes

$$A_n = 2 t A_{n-1} - t^2 A_{n-2}$$

We know that $A_n = t^n$ is a solution of this recursive equation, but $A_n = n t^n$ is also a solution, for

$$n t^n = 2 t (n-1) t^{n-1} - t^2 (n-2) t^{n-2} = t^n [2(n-1) - (-2)]$$

$$n t^n = n t^n$$

Thus in the case of equal roots, the general explicit formula becomes

$$5) \quad A_n = c t^n + d n t^n$$

Again for the initial values $A_0 = 0$ and $A_1 = 1$, we have $c = 0$ and $d = 1/t$

Hence 6) $A_n = n t^{n-1}$ is the general solution

For general initial values, $A_0 = \alpha$ and $A_1 = \beta$,

In the case of unequal roots, 3) becomes:

$$7) \quad A_n = [(\beta - \alpha q) p^n - (\beta - \alpha p) q^n] / (p - q)$$

In the case of equal roots, 6) becomes:

$$8) \quad A_n = \alpha (1-n) t^n + \beta n t^{n-1}$$

NUMAPRX4.WPD

September 2, 2004

SOME NUMERICAL APPROXIMATIONS IV

RECURSION FORMULA:

$$A_{n+2} = 10 A_{n+1} - 10 A_n$$

CHARACTERISTIC POLYNOMIAL: $r^2 - 10r + 10 = 0$

The two roots are: $u = 5 - \sqrt{15} = 1.1270166...$ $u^2 = 1.270166...$
 $v = 5 + \sqrt{15} = 8.8729833...$ $v^2 = 78.729833$

$\alpha_{MS} = 40.4182956$
 $25 + 4\sqrt{15} = 40.491934$
 $\delta = 0.008978$
 $Q = 1.000222$

$$v^2/2 = 39.364917$$

MEASURED VALUES: $\log_{10}(\alpha\mu) = 1.127074$, $\log_{10} S = 39.355882$

$[\log(\alpha\mu)]^2 = 1.2702958$

$$\log_{10}(\alpha\mu) - u = 0.000057 \quad Q = 1.000051$$

$[\log(\alpha\mu)]^2 - u^2 = 0.000130$
 $Q = 1.000102$

$$v^2/2 - \log_{10} S = 0.009035 \quad Q = 1.000230$$

EXPLICIT FORMULA:

(see RECEXP9.MCD DESACH)

$$A_n = (p^n - q^n)/(p - q)$$

where $p = 5 + \sqrt{15}$, $q = 5 - \sqrt{15}$ and $p - q = \sqrt{60}$

$$v^2/10 = 7.872983$$

$$(\log_{10} S)/5 = 7.871176$$

$$\delta = 0.001807$$

$$Q = 1.000230$$

$\log(\alpha/\mu S^{1/5}) = 9$

$$u + v^2/10 = 9$$

$$\log_{10}(\alpha\mu) + (\log_{10} S)/5 = 8.998250$$

$$\delta = 0.001750$$

$$Q = 1.000194$$

$$v - u = \sqrt{60}$$

$$v + u = 10$$

$$v u = 10$$

$$v^2 - u^2 = 10 \sqrt{60} \quad (v-u)^2 = 60$$

$$v^2 + u^2 = 80 \quad (v+u)^2 = 100$$

$$v^2 u^2 = 100$$

$$v^3 - u^3 = 90 \sqrt{60}$$

$$v^3 + u^3 = 700$$

$$v^3 u^3 = 1000$$

sequence 1, 10, 90, 800, 7100, ..., $x\sqrt{60}$ sequence 2, 10, 80, 700, 6200, ...

$$A_{n+2} = 10 A_{n+1} - 10 A_n \quad [0,1]$$

$$A_{n+2} = 10 A_{n+1} - 10 A_n \quad [2, 10] \quad \{\text{difference } x 10\}$$

cf Fibonacci w Lucas sequences

Dear Don,

Thank you for the latest Hightower opus. I suppose in our culture, whatever the issue, both sides restrict themselves to saying the same thing over and over, and the only change we can ever expect is for someone to say the same old things better. Hightower does say it better, or at least wittier. So I suppose that is some sort of progress. (I am not sure progress toward what.)

I too sorely miss our weekly exchanges and no one here seems to be either willing or able to back off from the political level and look at the world as it is. What used to be **philosophy**, the effort to make words represent reality, has become **spin**, the effort to make words disguise reality. I am not sure whether I am just alienated from the culture or have actually become an alien. I feel that somehow I landed on the wrong planet. But to make the situation endurable, I pretend I am a reporter from my home planet and my job is to analyze what is going on here and warn home base.

Count your blessings! I used to be very frustrated at computer breakdowns, now I look on them as a gift from Bill Gates. In being unable to stay on line, I can think about what I really want to think about instead of being inundated by all the digressive and indigestible stuff on the web. So happily back to the liberation of snail mail.

I still hope to see the Sundial Bridge, but am going to let them do surgery on the other eye in a couple of weeks, and then I need a few weeks to recover. So the bridge trip will probably occur when the weather has cooled off enough to enjoy it.

New Books to order:

“Lost Christianities”—Bart Ehrman

[Not to be confused with Needleman’s Lost Christianity]

“Moral Politics, How Liberals and Conservatives Think”—George Lakoff

[I still believe a good part of our trouble comes,
not so much from what we think, as from how we think]

Shalom and Salaam,

DONLTR, WPD

04-09-05

E. T. BELL NUMBER RHOMBOID

674		674
151 523	Σ	151 523
37 114 409		37 114 409
10 27 87 322		10 27 87 322
3 7 20 67 255		3 7 20 67 255
1 2 5 15 52 203		1 2 5 15 52 203
1 3 10 37 151		1 3 10 37 151
2 7 27 114		2 7 27 114
5 20 87		5 20 87
15 67	Δ	15 67
52		52

BELLM80, WPD

4-9-24

E. T. BELL NUMBER HEXOID

674 523 409 322 255 **203** 674
203 151 114 87 67 **52** 151 523
 255 **52** 37 27 20 **15** 37 114 409
 322 67 **15** 10 7 **5** 10 27 87 322
 409 87 20 **5** 3 **2** 3 7 20 67 255
 523 114 27 7 **2** **1** **1** **2** **5** **15** **52** **203**
 674 151 37 10 3 **1** **■** **1** 3 10 37 151 674
203 **52** **15** **5** **2** **1** **1** **2** 7 27 114 523
 255 67 20 7 3 **2** 3 **5** 20 87 409
 322 87 27 10 **5** 7 10 **15** 67 322
 409 114 37 **15** 20 27 37 **52** 255
 523 151 **52** 67 87 114 151 **203**
 674 **203** 255 322 409 523 674

Counter Clockwise Σ

Clockwise Δ

Toward Center Δ

BELL HE [redacted] WPD
4-9-24

BELL HEX 2 WPD

THE BELL TRIANGLE

A Bell Triangle is constructed on a triad of three initial numbers. These three numbers must be such that the third is equal to the difference of the first two. The first two numbers are on the top line of the triangle, their difference, the third number, on the second line:

1 2	1 0	1 1	0 1	2 5	3 3
1	1	0	1	3	0

The rules for the construction of the triangle state that the last (right most) number on the top line is brought down to the line below the last entry. The third line in the case below:

1 2	1 0	1 1	0 1	2 5	3 3
1	1	0	1	3	0
2	0	1	1	5	3

The line above the bottom line is then filled in by a number such that the number in the bottom line is the difference of the two numbers in the line above.

1 2	1 0	1 1	0 1	2 5	3 3
1 3	1 1	0 1	1 0	3 8	0 3
2	0	1	1	5	3

This process is repeated until the top line is reached:

1 2 5	1 0 1	1 1 0	0 1 1	2 5 13	3 3 0
1 3	1 1	0 1	1 0	3 8	0 3
2	0	1	1	5	3

Again the right most number is brought to the bottom and the process repeated:

1 2 5	1 2 5	1 2 5	1 2 5 15
1 3	1 3	1 3 10	1 3 10
2	2 7	2 7	2 7
5	5	5	5

(The example immediately above is the original Bell Triangle. Other examples are based on alternate initial triads.)

Of particular interest are Bell Triangles whose initial triads are of the form,

Of particular interest are Bell Triangles whose initial triads are of the form,

$$\begin{array}{ccc} X & 0 & \\ & X & \end{array} \qquad \begin{array}{cc} X & X \\ & 0 \end{array} \qquad \begin{array}{cc} 0 & X \\ & X \end{array}$$

where X is any positive integer. For example, the triangle,

$$\begin{array}{cccccccc} 1 & 0 & 1 & 1 & 0 & 1 & 1 & 0 \\ & 1 & 1 & 0 & 1 & 1 & 0 & 1 \\ & & 0 & 1 & 1 & 0 & 1 & 1 \\ & & & 1 & 0 & 1 & 1 & 0 \\ & & & & 1 & 1 & 0 & 1 \\ & & & & & 0 & 1 & 1 \\ & & & & & & 1 & 0 \\ & & & & & & & 1 \end{array}$$

Following the rules of triangle construction, at any of the red zeros marked below, there exists a choice. Instead of the 0, a 2 could have been inserted. But once a 2 instead of a 0 is inserted the triangle takes off on a different course in which there is no longer any choice.

$$\begin{array}{cccccccc} 1 & 0 & 1 & 1 & 0 & 1 & 1 & 0 \\ & 1 & 1 & 0 & 1 & 1 & 0 & 1 \\ & & 0 & 1 & 1 & 0 & 1 & 1 \\ & & & 1 & 0 & 1 & 1 & 0 \\ & & & & 1 & 1 & 0 & 1 \\ & & & & & 0 & 1 & 1 \\ & & & & & & 1 & 0 \\ & & & & & & & 1 \end{array}$$

Two examples:

$$\begin{array}{cccccc} 1 & 0 & 1 & 3 & 10 & 39 \\ & 1 & 1 & 2 & 7 & 29 \\ & & 0 & 1 & 5 & 22 \\ & & & 1 & 4 & 17 \\ & & & & 3 & 13 \\ & & & & & 10 \end{array} \qquad \begin{array}{cccccc} 1 & 0 & 1 & 1 & 2 & 7 \\ & 1 & 1 & 0 & 1 & 5 \\ & & 0 & 1 & 1 & 4 \\ & & & 1 & 0 & 3 \\ & & & & 1 & 3 \\ & & & & & 2 \end{array}$$

There is choice so long as 0 is chosen. Once 0 is not chosen there is no longer choice. In other words there is choice until you exercise choice.

SOCIETY'S FOUR SPECIALIZATIONS

The other morning I was watching birds. There were two crows perched on top of a fir tree. Later one came to the ground and started pecking for food. The other remained on the tree top watching for any threat that might approach. I was tempted to assign these roles to respective genders. The male protecting by watching while the female ate. But still later the two birds changed places and roles. This was not a gender matter, but the incipience of social order.

In fact the role of protection to accompany metabolism operations seems to be the first development in social specialization. Basically the most essential and universal activities among any species are those for metabolism, eating, drinking, resting, etc. These needs are taken care of by shepherds, herdsmen, later by gardeners and farmers and merchants. But as soon as a more sophisticated social order emerges in flock, herd, clan or tribe, the distinct role of protector emerges. Thus in these two activities, metabolism and protection, we see the origins of the present day merchant and military roles.

Later when clans and tribes become larger the role of adjudicator emerges. There is a need for equitable distribution of food and other necessities among the members of the clan or tribe. There is also the need for internal order. To meet these needs the concept of a *chief* comes into being. And in the functions of the chief we see the historic origins of government.

The three initial specializations—merchant, soldier, chief—are based on synchronic or day to day activities. That is on repetitive activities concerned with the present and immediate future. But soon a society develops a collective memory, (even before the existence of written records), and it is realized that things change. There are memories of droughts, floods, fires, storms, and other random natural events that have upset social equilibria. From the uncertainties created by such events there arises the need for another role, that of predictor or even diverter of threatening events. Hence the fourth specialization: A diachronic priesthood, whose role is to foretell the future and attempt to exercise control over the forces of nature. Consequently, in the need for diachronic understanding, priest hoods came into being that recorded and organized experience, became custodians of knowledge, and developed religious rituals and beliefs. In this fourth specialization we see the origins of culture and human creativity, of art and technology, and of what we emphasize most today, ~~of~~ science.

The basic form of social order today is still organized around the above four specializations. The three synchronic roles of feeder, protector, adjudicator, and the diachronic role of creator. In modern parlance the synchronic have become the corporations, the military, and the government. While the diachronic has the creative components of art, technology, religion and science. (Some of these components compete, but each is a facet of humanity's search for diachronic meaning.) And each specialization has developed its own value system or criteria for decision making. There are synchronic values of wealth, power, celebrity and diachronic values of understanding, freedom, and diversity. Synchronic assets can be owned. That is possession and ownership are parts of a zero sum game. Diachronic assets, on the other hand, cannot be owned. They belong to any and all who chose to follow a path to acquire them.

individually

The Fifth Group

The pitch forks

ANOMALIES, ANTINOMIES, AND ARISTOTLE

Is it not possible that some of our exasperating antinomies are beyond resolution so long as we persist in that particular mathematics—the only one we have at present—which is based on Aristotelean logic? Will the difficulties ever be cleared up by traditional reasoning, or are they waiting for some new minds, not respectful of authority, to circumvent the contradictions by building inclusive mathematics on a many valued logic?

–E. T. Bell

(from The Place of Rigor in Mathematics, American Mathematical Monthly, v 41, 1934)

Today there are many who feel that no small part of mankind’s problems and conflicts have been created by our way of thinking. What we think is determined and delimited by how we think. Many of the scientific paradoxes, legal anomalies, and political “Orwellisms” that have challenged us in the past few decades can be attributed to our dyadic, “us/them” mode of thinking. If mathematics is in trouble because of Aristotelean logic then it seems most important to extend Bell’s questioning of two value logic to a broader domain. Let us therefore replace the term ‘mathematics’ in his quotation with the more inclusive phrase, ‘mode of thinking’. Hence:

Is it not possible that some of our exasperating antinomies are beyond resolution so long as we persist in that particular mode of thinking –the only one we practice at present—which is based on Aristotelean logic? Will the difficulties ever be cleared up by traditional reasoning, or are they waiting for some new minds, not respectful of authority, to circumvent the contradictions by building a more inclusive mode of thinking based on a many valued logic?

It should be noted that multivalued logics have been around for some time. Hindu thinking has long included various species of four valued logic. For example, one species argues that only statements about the present can be true or false, while statements about the future are neither true nor false, and those about the past are both true and false. In the West, before mathematicians began exploring multi-valued logics in the early 20th century, all was Aristotelean. Maybe, there has been an exception or two: Scottish courts allow ~~for~~ juries, in addition to guilty or not guilty, the option, not proven. And for our zero sum, win/lose games, when overtime is inconvenient, we have allowed the third alternative of a tie. But Aristotle’s rule in the West remains mostly unchallenged.

LAWYER THINK

A basic activity in lawyer think is to assemble and connect the subset of dots that are favorable to an agenda and obstruct or erase those dots that are unfavorable to the agenda. This process defeats access to truth at the outset.

The interjection of win/lose into an argument [a legal case] results in the idea that truth is not a search, but a game, and that truth can be created by manipulations of selected subsets of dots.

Lawyers [especially politicians] become intoxicated with this process and come to believe that they actually have the power to create reality. [As a matter of fact, they do. They create an artificial legal reality which they come to believe can override factual reality.]

The source of a many of our societal and global problems today lies in this type of lawyer think.

Some explicit errors in lawyer think:

Interchange of elements and sets. Lawyer think does not comprehend the difference between an element belonging to a set and the set itself.

Lawyer think does not comprehend the concept of successive approximations.

Lawyer think does not comprehend the vector nature of resolve and goal, of effort and direction. [Nor of the option-action law]

God's [natural] laws do not allow interpretation, they are experienced uniformly. Legislated laws, on the other hand, do involve interpretation which invalidates their uniformity and hence their avowed goal of achieving justice.¹

Spin is the end result of lawyer think

The above remarks are general criticisms of lawyer think, but do not include the common legislative practices of amending essential legislation with pork and loopholes as favors to themselves and special interests. Nor do they include the wasteful power plays of partisan politics.

My conclusion is that legislatures and courts should contain as many scientists, engineers, mathematicians, and philosophers as they contain lawyers. Of course it would be necessary to draft such people, [as for jury duty], since they have no stomach for the continuing power games that are the center piece of most political bodies.

¹It must be admitted that history is full of accounts where rulers, clergy, scientists, and others have tried to force their particular interpretation of a natural law onto the social order.

CONTIGUITY AND CONTINUITY

We perceive the world as contiguous and continuous. However, this is an illusion, in part a matter of the resolving power of our senses, and in part a simplification imposed by our limited cognitive powers. We perceive spatial and temporal nodes, but not the spatial and temporal gaps between those nodes in which, hidden from us, myriads of relationships, links, and connections reside. While we are vaguely aware that there exist overreaching interconnections between all parts of the cosmos, both our perceptions and conceptions restrict our version of reality to knowledge of but a small fraction of the interconnections that actually exist. Not only are our perceptions and conceptions limited, but even our imaginations barely penetrate the narthex of total existence.

An important implication of a contiguous and continuous reality is that it is singly organized. That is, the universe is a unique organization, self consistent and self coherent. In current scientific parlance we feel there can be "a theory of everything", or in traditional theological parlance the inference is monotheism. However, certain modern experiences have brought into question the notion of the universe as a single organization. For example, the discrete nature of reality as evidenced by quantum mechanics, the implications of parallel universes in certain astrophysical data, and the incompleteness theorems of Kurt Gödel, all point to the possibility, if not the necessity, of alternate organizations within the cosmos. But these modern disclosures only reflect and affirm ideas proposed by ancient sages and savants that the world is constituted of multiple realities and organizations.

To contemplate that there are alternative intersecting realities is threatening to us. So we persist that, even if there are multiple worlds, we exist in only one, and our job is to live in and understand the one to which we belong. This is one assumption. However, some have the feeling that our species may exist in more than one of these multiple realities. Indeed, we may serve as bridges or links between two or more such parallel worlds. To explore such an hypothesis should be as much our responsibility as it is to explore our common world.

Put in the terminology of logic, we note that our common world is the *intersect* world of human experience. The new challenge is to explore the alternative realities that are manifested in the *union* of human experience. This violates political correctness, all men are created equal, etc. But, equal or not, humans have both common and unique experiences. Many of these unique experiences possess commonalities that infer they are not just pathological. These commonalities constitute a *sub-intersect* of experience that permit the application of some of the tools of the scientific method. However, every reality or ontology requires its own epistemology. The challenge ahead will be to develop the new tools and the new epistemologies required for the exploration of these alternative realities.

BUSH-THE ONTOLOGICAL LEVEL

In yesterday's New York Times Magazine, Ron Suskind related a truly startling conversation that he had with a Bush White House official who was angry that Suskind had written an article in the summer of 2002 that the White House didn't like. This senior advisor to Bush told Suskind that reporters like him lived "in what we call the reality-based community," and denigrated such people for believing that solutions emerge from your judicious study of discernable reality...that's not the way the world really works anymore...when we act, we create our own reality. And while you're studying that reality, judiciously as you will, we'll act again, creating other new realities, which you can study too, and that's how things will sort out. We're history's actors, and you, all of you, will be left to just study what we do."

quoted by Al Gore

This Bush White House way of viewing the world seems to have some of its roots in the ideas of Karl Marx:

*Philosophers have only interpreted the world in various ways,
but the real task is to change it.*

-Karl Marx

Marxist philosophy holds that the most important problem does not lie in understanding the laws of the objective world and thus being able to explain it, but in applying the knowledge of those laws actively to change the world.¹

-Mao Tse-tung

Two important observations are to be made:

First, the realities created by these reality changers never turn out to be as they predicted. They, of course, do not admit this. They change their intent to fit the outcome, never attempting to change the outcome to fit their original intent. That is, they relocate the target to where the arrow happens to light. But whether always missing the target is the result of illusory thinking or incompetence is not certain.

Second, the reality changers' ontological thinking regarding reality changing is in grave error. The reality which they think they change is not the world of factual reality, the so-called objective world. The world they change is an artificial reality created of images and words. This is not something new. Fictional and imaginary worlds have been created by humans since they developed speech; and there have always been mental cases where individuals try to live in these fictitious worlds instead of facing factual reality. What is new is when belief in a pseudo-reality becomes a **collective aberration** created by a monopolized media. And when the creators of such a pseudo-reality come to believe in it themselves.

There need be no accusations of lying and dishonesty. It is purely mental derangement.

¹Mao seems to infer that you can apply the laws of the objective world without first understanding them. That may explain why the results achieved by these reality changers never conform with their intent.

The real task is to change ourselves

— ✱

November 3, 2004

AFFIRMATION OF ALIENATION

For many years I have been feeling increasingly alienated from the cultural context in which I find myself. The results of the 2004 election, just now in, affirm the gap that exists culturally, intellectually, and spiritually between me and the society around me. It is difficult to explain this gap because it is not in my heritage, which is the same as most Americans. Also it is not in values, for mine are pretty much the same as the cultural norm. I believe in integrity, honesty, hard work, compassion, and sharing. I believe in equality of access to education, health care, and other basics. I admire the virtues of courage, sacrifice, and belief in a higher destiny for mankind. Since these are also the proclaimed values and virtues of American society, whence my alienation?

I have to look to some deeper level to detect where I differ from the culture:

First, using the terms synchronic,¹ and diachronic,² I find that the American culture has become totally synchronic, with its focus on the immediate now, on this weekend, this financial quarter, this presidential term. The past be ignored, the future be damned. On the other hand, I am a diachronic person, trying to read the messages of history and the natural order and translate them into a way of life. I think of this generation as but one in a great sequence, with duties to sustainability and learning, but with nothing special about it, except for any special diachronic contributions that it can make.

Second, the American culture has become a "me" culture, our identity is with our immediate context. We divide the world into an inclusive "us" and an alien "them". This has resulted in the immoral morality of one set of rules for us, another set for you. On my part, I seek to include in my identity all humans, all sentient beings, all life, all creation. I am part of a great whole, whose greatness and diversity is beyond my comprehension, except I feel that I am connected to it, and in many ways.

¹Synchronic: Focus on the present, the immediate future, and recent past.

²Diachronic: Focus on the total expanse of history, human, paleo, and cosmic; using a broader "now" in which to operate; with visions and responsibilities for the worlds of future generations.

Third, the American culture has become obsessed with zero-sum games. We do not seek solutions to our problems, we seek to convert them into us/them, win/lose games, or if not to a game, then to a war, as against poverty, against disease, against drugs. Action in America is to compete, success in America is to win. And to emphasize the importance of competing and winning, we now endorse the winner taking all. Americans have become competitive because Americans are conformists. The more alike people become, the more they seek the same things and the more competitive they become. It is a paradox that Americans think of themselves as "rugged individualists" when in reality they are so homogenized they fear anything or anyone who is different. While this individualist self image is part hypocrisy and part illusion it results in limiting genuine diversity and destroying potential. It is true that we all need challenges to make our lives meaningful. But it is immature to morph every challenge into the challenge of besting others. Our true challenge is to achieve and become what we can collectively and individually envision through working with and supporting one another.

Fourth, the American culture uses a particular code book to interpret the events that occur in the world. This code book or world view derives largely from classical Greek, Hebrew, and western European traditions. Its Weltanschauung consists not only of a set of beliefs, but more fundamentally of a particular way of thinking. While it is important to master this code book in order to get along within the culture, it is a mistake to interpret messages from outside the local culture using this home grown code book. Our use of this single code book has not only contaminated all of our institutions, political, commercial, educational, religious, ... but also our approaches to interpreting the natural order. I am personally concerned that the most important effort of our times is to develop new code books, new ways to think. Develop different logical systems, going beyond dyadic thinking, and two valued logics. Develop different ways to entify the world, identify different components and find new ways to put them together. In short, depackage all the institutions, groupings, alignments, patterns, models, and theories, that we have produced and seek as many alternative ways to reconstitute and reconstruct them as we can conceive. And most important, leave everything on the table of discourse!

In the course of writing this essay, I discovered that I am not talking about an affirmation of alienation but I am doing what Americans did back in 1776: proclaiming

A DECLARATION OF INDEPENDENCE.

ONTOLOGY 101

Part I

The evolution of the Evolution vs Creation question:

- 1) Bible vs Darwin
- 2) Design vs Chance
- 3) Rules vs Self-organization
- 4) Two levels vs One level

The question shifts to: if rules, whence their source? But also, if stuff, whence its source? Do the rules and the stuff they govern have the same source? Or does the cosmos come into existence at the intersect or verge of the two? Or does stuff have "built-in rules" that lead to self-organization? But again that would imply two levels. But we could say that no-rules leads to self-organization. But this still is some sort of rule. It seems difficult for us to avoid a two level ontology, be it self-organizing or governed by rules from a different source. There are rules and there is stuff. A final alternative would be that rules are only a different kind of stuff, but the existence of a second kind of stuff still leaves us with the number two, whether it refers to levels or kinds of stuff. The ontological conclusion is that the number two is somehow fundamental to existence.

This conclusion is consistent with Eddington's "Uniform sameness is philosophically indistinguishable from non-existence." That is, One does not exist. So existence begins with Two, i.e. begins when there is some sort of difference. It is also interesting to note here that Pythagoras who had no symbol for nothing, there was no zero in his time, concluded that one was the proper symbol for nothing. Again it takes two to exist.

So the school board in Kansas should decide whether to allow two to be used in schools or to pass laws requiring its deletion from all texts.

The above has ignored the question, does design imply a designer? Or do rules imply some sort of legislative body? We avoided trying to answer the two questions: Whence the source of rules, and whence the source of stuff. For those who want to continue the Evolution vs Creation dialogue let them come up with the answers to those questions. The rest of us can take the dictum that two levels, matter/ thought, things/ names, two species of stuff, or a fundamental difference can be a launch pad for the exploration of alternative ontologies.

GROVES AND CLEARINGS

There is a curious symmetry in nature between a grove and a clearing. Myths and the folklore of many peoples speak of sacred groves, sacred to various gods or goddesses. And there are legends of clearings in a forest where one meets a deity in some form or other. Both groves and clearings are associated with supernatural beings, groves with their abodes, clearings with their manifestations to mortals.

I have reported elsewhere my experience of encountering a *vajra* in a magical clearing that I could never find again. But on another occasion I had a different kind of experience with a manifestation in a clearing. This occurred at a Cirstacian Monastery near Whitethorn, California. This is a monastery founded by Belgian nuns who were refugees from the Nazis in world war II. They built their chapel with one end having a glass floor-to-ceiling window that opened onto a clearing which was surrounded by firs and redwoods. The nuns always meditated facing this clearing which had a grassy floor and a single deciduous tree in its center. From time to time there would be retreats at Whitethorn and we secular types could join the nuns in their meditations. On one occasion when I was there on retreat we were all gathered in the chapel doing the afternoon office. Suddenly in the middle of the clearing standing next to the central tree stood a huge stag, with shining antlers. The nuns gasped. We were all awed by the sudden presence of this beautiful animal. It felt as though he were some messenger who had appeared to bring us a special spiritual message. While we were all absorbed in this event and its symbolic significance, the stag disappeared as suddenly as it had come. All of us felt that there was some sort of a theophany in this event.

But the manifestation of a stag with a spiritual message has historic precedents. St. Eustace in Roman times, and St. Hubert in the eighth century both reported encounters with a stag that occurred at critical moments in their lives. Their legends both mention a glowing cross shaped form on the stag's head between his antlers. If the Whitethorn stag had a cross we missed seeing it, but we did feel a euphoric spiritual presence.

In thinking about a spiritual message in the manifestation of the stag, I recalled a passage in the children's book, "Bambi", by Felix Salten. There is the final scene where the old Stag is trying to get a message through to the young ^{stag} deer, Bambi. They have come across a human who has been shot, probably a poacher. The old stag says:

"Do you see, Bambi, He is lying there dead, like one of us. He isn't all-powerful as they say. He isn't above us. He's just the same as we are. He has the same needs, the same fears, and suffers in the same way as we. He can be killed like us. Do you understand, Bambi?" "Then speak."

Bambi was inspired, and said trembling:
"There is Another who is over us all, over us and over him."
"Now I can go", said the old stag.

The symbol of St. Aidan is a stag

ONTOLOGY 101

THE EVOLUTION of CREATION vs EVOLUTION

- 1) The Literal Bible vs Darwin
 - Is God the God of all or just of the earth?
 - He is God of all Creation.
 - Then why should the God of all Creation select the 24 hour rotation period of this one small planet as His unit of time for creating all Creation? Six earth days?

- 2) The Metaphorical Bible vs Darwin
 - Well, the Hebrew word, *yom*, can mean day, but it also means a period of time.
 - The English Bible probably should have read, God created the world in six epochs or six periods of time, not literal days. The time span is not the issue.

- 3) Design vs Chance
 - With time span out of the way, what is the issue?
 - The issue is, did creation happen all by itself, by chance so to speak, or was there a designer, who designed the world and launched it on its evolving course? There do seem to be rules or principles governing the world and how it evolves, even Darwin admits this, so what is the source of these rules? A Designer?

- 4) Rules vs Self-Organization
 - We agree that there are rules, laws, principles that enable, guide, and limit what happens. The issue is are the rules separate from the world, written on some external tablet, designed and enforced by some external agent, or are the rules built-in-rules, implicit in the nature of matter, actual attributes and properties of the material world as it is, self-organizing, self-directing.

- 5) The Source: Back to Design vs Whatever
 - Whether the rules are implicit properties or external administrative guides there is still the issue of their source. Even if material particles have the "intelligence" to self-organize, how did they get that way? The demonstration of instances of self organization does not answer how the ability to self-organize was acquired. We are back to the issue of the source.

- 6) The Designer has been replaced by the Design
 - Whether there is an on-going Designer or not, there is an on- going design. This design can create and is accordingly a creator. And in this sense the Creator has merged with Creation, the Designer has become one with the Design, and Darwin would have to concede that the selection becomes the selector.

This dialogue has also ^{taken} ~~reached~~ the form:

Anthropic Principle: The fundamental constants have been fine-tuned so that the universe allows life and us. Fine-tuned \Rightarrow a tuner, a designer

The counter, to preserve chance, was that the universe is but one of a great set of universes \rightarrow a multiverse - and that we happen to exist in a particular one in which the fundamental constants have values allowing life.

The Dialog continues between two indefinables:

God and Chance

Perhaps ultimately we will conclude

God \equiv Chance

FIVE FUNDAMENTAL WORLD VIEWS

- 1) Nature is an enemy to be subdued
 - The Challenge: to control, to win
 - The Elites: rulers and warriors
 - The Attitudes: arrogance and fear
 - The Virtues: persistence and courage
 - Style of Thinking: black/white, us/them
 - The Diachronic/Synchronic Index is 2

- 2) Nature is a Bank Account for making deposits and withdrawals
 - The Challenge: Sustainment
 - The Elites: providers of sustenance and healing
 - The Attitudes are protection and balance
 - The virtues are equity and justice
 - Style of Thinking: associative, literal
 - The Diachronic/Synchronic Index is 4

- 3) Nature is an exemplar for creativity
 - The Challenge: Innovation
 - The Elites: artists and inventors
 - The Attitudes: perfection and pride
 - The Virtues: imagination and originality
 - Style of Thinking: poetic, amorphous
 - The Diachronic/Synchronic Index is 6

- 4) Nature is a mystery to be explored
 - The Challenge: Understanding
 - The Elites: scientists and philosophers
 - The Attitudes: curiosity and wonder
 - The Virtues: persistence and openness
 - Style of Thinking: logical, abstract
 - The Diachronic/Synchronic Index is 8

- 5) Nature is a symphony to be heard
 - The Challenge: Transcendence
 - The Elites: no elites
 - The Attitudes: peace and joy
 - The Virtues: inclusiveness and compassion
 - Style of Thinking: parables, metaphors
 - The Diachronic/Synchronic Index is 10

UP DATED INTRODUCTION
To Styles of Thinking

The analyses of the recent election have centered not only on the candidates, their personalities and records, but on balloting, numbers of voters, minorities, vote counting, and voting machines. But looking beyond the mechanics of campaigning and voting, some analysts have studied the map with its red and blue areas and sought to explain the results on a psychological level in terms of fears, ideologies, and values. They hold that the vote reflects what people feel and think. That is tautological. The analyses should go further, beyond what people think, to how people think. When people have the same inputs but come to different conclusions, what they think must have something to do with how they think.¹

Ideology may have as much to do with the “how of thinking” as with experiential inputs. Ideology is also influenced by “group think”, our thinking conforms to what the majority of those around us think. We see on one side in the election, simplistic black and white thinking, the us/them, good/evil, style of thinking typical of one of the candidates. That this simplistic style of thinking was challenged by majorities in blue zones indicates that there do exist different kinds of thinking as well as different specifics in what we think. It may be that living in high density urban areas requires more sophisticated thinking, the need to come up with more alternatives, (e.g. the need to know alternate routes when there is freeway gridlock), than are required in red low density prairie lands.

THE HUMAN MIND, EXCEPT WHEN GUIDED BY
EXTRAORDINARY GENIUS, CANNOT SURMOUNT
THE ESTABLISHED CONCLUSIONS AMID WHICH
IT HAS BEEN REARED.

-WINSTON CHURCHILL

Another factor revealed in the election is the role of certain religious beliefs. Whether the profound teachings of various religions have been intentionally “dumbed to the dyadic” in order better to control membership or have of necessity been designed to fit an existing low level of intelligence of the membership, the result has been millions of simplistic thinkers. My own persuasion is that simplistic thinking is not ingrained, it is inculcated. Of course, this paragraph raises another issue, the arrogance of elites who pretend to be able to analyze human thinking.

¹It is certainly open to question whether voters in the red zone and the blue zone had the same inputs.

A DREAM
NOVEMBER 20/21, 2004

I am in some sort of church, chairs instead of pews, I am sitting in the chair on the left end of about the fifth row. Next to me on the right are seated two women, the closer seems to be Donna, the other perhaps, Robin. There are two or three "pastors" up front taking turns preaching about things that seem totally irrelevant to me. It gets worse. These guys not only are talking about Easter as we are entering Advent. Everything they say is out of touch with the times.

Then some more clergy enter. These are dressed in Roman or Anglican vestments. One has a beard. They try to interrupt the pastors and there is a big argument and total confusion up front. I find myself getting irritated. Why am I sitting here part of this when I should leave and do what I need to do. As I am about to get up and leave, the clergyman with the beard escorts a new group into the church. Among the newcomers I recognize the Dalai Lama. Immediately a calm settles over the clergy, the pastors, and the congregation. The Dalai Lama looks at us smiles and bows and then over the protests of some of the clergy leaves. The entire atmosphere has changed. We all seem to have awakened to a different level. And as I was realizing this, I woke up.

POLARIZING POLARIZATION

Now another polarization has arisen. This one among those who are explaining why Americans are polarized, why there are red states and blue states. One side says it is values, what people value. The other side says it is not what people think, but how people think. Since so much that is currently being said has lowered the bar on making sense, I feel free to enter the arena with my two cents worth.

Look at the map. Where is the blue, where is the red.? Now turn back the clock to a time before the white man arrived..

The Iroquois Confederation, located in a blue region, The Pueblos and builders of Chaco Canyon, located in a blue region. The advanced pre-Columbian cultures were in the blue. And what was in the Red? Only buffalo chasers. It appears that this polarization between the creative and the stagnant has been around long before the white man arrived to participate in it. It must have to do with the nature of the North American terrain itself. Water, coastal and river, people everywhere are those who developed civilizations. Mountain people developed diversity. Flatlanders just chased whatever animals or other tribes that were available. Of course, the details have changed, but the cutting edge in the generation of ideas and their implementation still follows closely to the waters and the mountains, both ever changing and rich in diversity. On the other hand, both the flatlands and the flatlanders are devoid of diversity and incapable of change.

*Nomads
Mongols*

Another subject:

The attack on 9/11 has been compared to Pearl Harbor. Perhaps this is because the question of "who knew what when" applies to both the 2001 Bush Administration and the 1941 Roosevelt Administration. But a more accurate comparison of the attack on 9/11 would be to Little Big Horn. The shock of 9/11 was not so much in the attack itself or in the losses, The shock lay in the fact that it was perpetrated by uppity non-whites who challenged our number-one monopoly of superior violence. The shock of Indians out maneuvering the United States Cavalry was the same shock as Arabs modifying our own technology into weapons used successively against us. How dare those inferiors do this! Haven't they learned who is boss?. No, it is we who are the non-learners. We still have not learned that the idea of a global boss is totally anachronistic. The five centuries of colonialism in all its forms, military, economic, and religious, are over, obsolete, kaput. But the administration is bent on proving that a neo-colonialism can be made to work.

ONTOLOGY 101

CONTIGUITY AND CONTINUITY

[REF: BEXISTS.WP6, 1998#28; NOTE17S.WPD, 2004#65]

We live in a “solid state” reality. Our perceptions of the world are that it is contiguous and continuous like solid state matter, while “real reality” may be more akin to a liquid or to a gas having occasional contiguities and broken continuities. But our perceptions and experience have convinced us that contiguity and continuity are the “cement” of reality. (And derivative of our percepts of contiguity and continuity are our concepts of causality and consistency.) But against centuries of sensory evidence by billions of humans, the results of certain experiments in the 20th Century have indicated that we may have had it wrong.

General Relativity tells us that space and time exist only in the presence of matter. The curvature of space and the clock rate of time are functions of the local density of matter. The inference of this is that space and time are not basic attributes of the cosmos, but are only properties of material objects. And since the distribution of matter in the cosmos is not continuous and contiguous, it follows that neither space nor time is contiguous or continuous. But this view not only contradicts common sense, it violates earlier scientific dogma. Newton held that space and time were “absolutes”; they were the essential infrastructure needed to give location to all objects and events. While this traditional view has been superceded, it still permeates our thinking because it fits everyday experience. How can we all be so wrong?

Observations support Bell’s quantum mechanical predictions of non-locality. No longer is an object either here or there, it can be both here and there. While this has been observed space-wise, it has yet to be observed time-wise, but if true, an object could exist both now and then. If true, Avatars, Brigadoons, Camelots, Once and Future Kings, would no longer be fantasies, but plausible possibilities. The basic connections between entities, and even within an entity, are not spatial contiguity and temporal continuity, but invisible connections of a non-material nature. Without contiguity, who is my neighbor? Without continuity, who are my colleagues? Is it a synchronicity that the internet has come along at just this time to give us new answers to these questions as the old definitions based on contiguity and continuity break down?

With perspicuity beyond contiguity and continuity, the old cliché of connecting the dots has to be upgraded. There has always been some sort of a “Newtonian” table to hold the dots. But now the table exists only in the immediate vicinity of each dot. What does this do to our logical infrastructure? How do we upgrade our logic and thinking to fit spatial and temporal non-locality? It appears that our traditional rational processes are too limited, but Gödel has already demonstrated this to be so.

THE THEME OF BRAHMA

According to current cosmological estimates, the present cosmos began with a “big bang” about 14 billion years ago. If this be so, then we are living in the third day of the lifetime of Brahma. The day of Brahma, called a kalpa, consists of 4.32×10^9 [billion] earth years, and the lifetime of Brahma is 100 divine years each of 360 kalpas. Thus the lifetime of Brahma in our units comes to about 156×10^{12} [trillion] earth years. While the current Brahma may have several lifetimes, after this Brahma there will be a succession of many others each with a lifetime of 156 trillion years.

During each lifetime of a Brahma there is a “Theme” designated by the Brahma which governs all that may happen and that may not happen during his lifetime. This Theme of Brahma is a “meta-law” that governs all the laws and principles—physical, spiritual, temporal, and all other dimensions—of the current cosmos. We, of the species homo sapiens sapiens of the planet Earth, have been intrigued with Brahma’s Theme and have sought over millennia to understand and articulate it through our philosophical, scientific, theological and other endeavors. We speculate about the fundamentals: the constants of physics, the processes of evolution, the patterns in nature, the existence of God or Gods, etc. etc., seeking those principles with sufficient generality to encompass all our experience. And foolishly concluding that the principles we come up with are Brahma’s Theme. Foolish, because the totality of our experience, the errors in our processing of experience, and the limits to our imaginations, singly and together preclude our grasping the profundity of Brahma’s Theme.

This having been said and admitted, we still continue our search for the Theme. And this search, together with our projecting our own inclinations onto our gods, including onto Brahma, leads us to the surmise that Brahma must also be involved in a Search. So we speculate that if Brahma already has a theme and is still searching, it must be for a “meta-theme”. And what might a meta-theme be? That is what Brahma wants to know. And how does Brahma seek for a meta-theme? We speculate that Brahma might do what we do in searching for Brahma’s Theme: look for all of the possible variations that occur and abstract from them their implied general principles. Iterating our speculations, Brahma’s Theme, for which we search, is the promotion of as much variety and diversity as possible. What Brahma learns from all the variations will be useful for designing future themes. So we finally speculate that the meta-theme is a source that enables the generation of as many diverse themes as possible.

Assuming a cosmos structured in the manner of fractals, we can now abstract a theme that operates on all levels: **The optimization of diversity, maximization of variety, and enhancement of uniqueness.** However, this theme requires enforcement in two forms. First, its protection, hence the role of Vishnu. And second, the termination of all factors that tend to destroy diversity, homogenize variety, and inhibit the proliferation of uniqueness, hence the role of Shiva.