

## **Occulted energies: earth, alchemy, electronics and technology.**

Martin Howse. August 2015. Energies in the Arts conference, National Institute for Experimental Arts (NIEA), UNSW Art & Design, Sydney

### **RE-CYCLING**



Provide by Arts, for the hardnesse of Nature, for one Sister weepeth without the other.

*[John Dee, A true & faithful relation of what passed for many years between Dr. John Dee ... and some spirits... [ Abbreviated to TFR.] p. 357]*

The first stage of this writing is fermentation. A quotation in the alembic is then heated again and again, re-cycling and circling with the years and in the Pelican, dripping through, feeding its cycling blood:

Or we could call it RECYCLING.

Kekulé dreams the Great Serpent holding its own tail in its mouth, the dreaming Serpent which surrounds the World. But the meanness, the cynicism with which this dream is to be used. The Serpent that announces, "The World is a closed thing, cyclical, resonant, eternally-returning," is to be delivered into a system whose only aim is to violate the Cycle. Taking and not giving back, demanding that "productivity" and "earnings" keep on increasing with time, the System removing from the rest of the World these vast quantities of energy to keep its own tiny desperate fraction showing a profit: and not only most of humanity—most of the World, animal, vegetable, and mineral, is laid waste in the process. The System may or may not understand that it's only buying time. And that time is an artificial resource to begin with, of no value to anyone or anything but the System, which must sooner or later crash to its death, when its addiction to energy has become more than the rest of the World can supply, dragging with it innocent souls all along the chain of life.

*[Thomas Pynchon, Gravity's Rainbow. p.480,481]*

The supposed Orouboric dream (or a fabrication thereof, a fake, a monkeyed island parody) is recycled with its serpent intruder shadowing the molecular structure of benzene, beginning a cycle which leads to a new foundation for

organic chemistry, and thus to the development and escalation of the synthetic. This dream which apparently comes back (by omnibus) to the chemist or scientist Friedrich August Kekule von Stradonitz equally proclaims a cycle of decay and death which is "violated" by its own application, the interpretation and use of that in-cyclin carbon-carbon bonded ring.

It is too easy to say that the autumnal alembic of any nature is broken or smashed by a science without seasons and cycles, excepting the measured fluctuations of branching, hardening tailed-toxic rivulets of sulphur (sticking as crystalline in the flasks, unmask) or cyanide running down from the white hotel, the mount royal (Ballard, The Crystal World), which also cannot be seasoned. For that is also seeming circular, this (de re) metallica cycle of mining, vampire earth containments, leaky synthetics, refinement, and a forthcoming technology which then gets returned to the earth. And what precisely is being violated? A hunted, stag/g/ed (Diana) cybernetic for(who?)-loop attends a bachelor (party) machine, EM-bodied as any circuit made from the earth, as both violation (its application) and completion ("return 0;"); autumn is violation.

A confusion of tailings is mentally al-imbibed, to fall down on the side of capital or entropy, accumulation's inverse, considered as natural, precisely where obscenely there is no nature. For it is presented that we are either all nature, as science would have it (the unconscious charted), or no nature, airs (sic) apparent to either a burning or emptied schizoid earth crown or thrown; either in that whole container, or with no outsiders.

It all begins with the season of earth, a cycle and a dream, but it can't begin, again, in death or entropic tailing graphed. I can only insist that it is always necessarily autumn (in heaven), that an autumn slime time is crystalline both with a marked-mycelium beginning and not an end; there is always a time for fermentation and for putrefaction, for seasons of a writing which returns and is always re-visiting, but which could perhaps be subject to decay.

So for the words themselves to be so subjected, as things, to fire and dissolution, they would need to be moulded of matter, and to admit the voiceless noise of angels. The letters and symbols forming these words, forged in crystal, locked in concrete, dragged through the snow as a bell calls, would previously have been written as a book of nature, now sadly declined and decaying, attempting to be revived but as surely as it is outside that dream it is destroyed by science (thrown away as it reveals a contained nothing and must be surpassed for engineering) and thus uselessly mourned.

But what is exactly this hidden place of the now, where symbolic orders, where language becomes material change at a quantum level? Where words are subjected to literal and not literary un-angelled noise, not the simple noise of ghosted machine transmissions, where they become in themselves registers of shit?

This non-place is the CPU or Central Processing Unit, anchoring any technology, AKA. the Dark Interpreter; the deteriorating Book of Nature is saved as all salvage, an electronic waste basket, as a processor or circuit skewed and etched in nature, in up-mined substrate, necessarily admitting that decline and

declension of noise.

Written in an opposed sense, the Dark Interpreter is nothing other than this being able to subject words to (material) change. There is always the desire to (on the surface) invert a magic which would subject materials to a transformation enacted by words which are thus the same as things, so that now these words changed do become as things, do become the expressed words of nature (where there is no difference between the thing named and the thing, it is its multiplying and branching schizoid utterance); yet as things they can be subjected to attrition and to entropy and this is just to show and indicate (the Dark Interpreter at work) that this can be done to any container. That it can finally give words to death, and death to words; putrefaction and autumn without end in the non-returning, always closed vessel, and dissolution in a dream.

The Dark Interpreter is that which is written, as words only, with no flesh, no non-transcendant body, words not of earth nor in the earth, but in a lake, IN the terror and Dee light of the lone lake (Poe) which is the return of truth.

The processor is not broken, buried, mottled, melted; instructions are not pinned backwards and driven heartily yet without reason into the earth, proclaimed earthy OCR (optical character recognition) from after-times and end-times: "Thiu oipenest the greatest babilty and strength of toy power not such as it hath been btt such as it is. EK"

### **Interpretation:**

background to that first quotation, obsession with pynchon who writes the conspiracy that is technology (only the earth, the city as a circuit board, psychogeophysics, the being substrate of the world, ones and zeroes - aside on electromysticism as key here - electromyst is the transitioning between matter and meaning and the implied question of transcendence or material.)

Friedrich August Kekule von Stradonitz the chemist in 1862 supposedly daydreams the oroboric or snaking structure of the benzene molecule - paving the way for synthetic and organic chemistry. but aside from a rhetoric of profit and extraction, begin to doubt these oppositions, of the cyclical and resonant with the extractive and squandering. not so much about this expenditure in itself but rather ... exactly what?

that perhaps there is a cycle which is embedded within technology as alchemical, as returning, as micro-electronic, and as world giving-and-holding which is not self-violating, which is natural and which must be violated.

... human works are variously the same as natural ones... For the fire of natural lightning and the fire thrown forth by a computer processor is the same fire. The natural ambient air and the artificial air produced by a climate control device are both air. The natural earth beneath our feet and the silicon produced by burning sand are both earth. Green salt, vitriol, arsenic, mercury and cyanide are natural and artificial.

*[Book of Hermes - late 13/14 century]*

it can name itself on one side decay and obsolescence - the cycle of technology, mined from the earth and returned to the earth with a leakage, the spreading blood of the sun bitten by the green lion of science punctuating these cycles of mined-day and illuminated-night:

Let there be LIGHTES in the firmament of the heaven, that they may divide the Day and the Night, and let them be for Signes and Seasons, and for the Dayes and yeres."

*[Dee. A playne discourse.]*

the pynchon quotation implies a cycle of decay and death which is supposedly "violated" by its own application, the interpretation and use of that in-cycling carbon-carbon bonded ring.

the ouroboros- serpent eating its own tail, figure from greek (gnostic), indian and norse religion and philosophy later appearing as alchemical symbol birthing technology in a supposed re-birth is not for us NOW about cycles, about return but rather a holding WHO, we hold ourselves, one holds the world..

- what is exactly this contradictory holding? that the world is, but can never be said to be that which it is, but always is, over and over. that we can begin to see that it is a question of containing which is the same as holding; and of an outside to a cycling.

alchemical symbol we'll see here (slides) at intervals: from the 2nd century Alexandrian text *The Chrysopoeia of Cleopatra* encloses the words hen to pan - "one is all" or "one the all". snake holds all as itself. everything needs to be to be that one:

And where and when he will lacke an Unit, there and then that particular thyng shal be Discreated.

*[John Dee, Preface to Euclid's Elements of Geometry. 1570]*

## THE CPU



... if we conceive of a being whose faculties are so sharpened that he can follow every molecule in its course, such a being, whose attributes are as essentially finite as our own, would be able to do what is impossible to us. For we have seen that molecules in a vessel full of air at uniform temperature are moving with velocities by no means uniform [...] Now let us suppose that such a vessel is divided into two portions, A and B, by a division in which there is a small hole, and that a being, who can see the individual molecules, opens and closes this hole, so as to allow only the swifter molecules to pass from A to B, and only the slower molecules to pass from B to A. He will thus, without expenditure of work, raise the temperature of B and lower that of A, in contradiction to the second law of thermodynamics.

*[Maxwell. 1871]*

But what [...] if the Demon exists only because the two equations look alike? Because of the metaphor?" Nefastis smiled; impenetrable, calm, a believer. "He existed for Clerk Maxwell long before the days of the metaphor."

She looked at the picture on the outside of the box. Clerk Maxwell was in profile and would not meet her eyes. The forehead was round and smooth, and there was a curious bump at the back of his head, covered by curling hair. His visible eye seemed mild and noncommittal, but Oedipa wondered what hangups, crises, spookings in the middle of the night might be developed from the shadowed subtleties of his mouth, hidden under a full beard.

*[Pynchon. Crying Lot 49]*

He (Smoluchowski) proposed that you try being a demon yourself: just buy one of those modern infrared-sensitive night glasses. In addition you need a bowl of water, a dark room, an ordinary spoon, and two thermos bottles, one red and one blue. Then just wait and sample, with the spoon.

*[Otto Rossler. Endophysics]*

### **Interpretation:**

parallel to maxwell's demon is an aside on what we can call thermal hacking - eavesdropping on the heat emissions of a computer's processor and graphics

card. - also as a communications channel using thermal sensors.

that what I call the CPU - the mundane central processing unit, this everyday, hidden piece of stuff, of silicon, exactly where programming instructions but always only as voltages, as energy and electricity are transformed - not really, are channeled graphically through twists and turns of demonic leverings and pistonings of electrons... this CPU is for me a talisman, an empty vessel, to be filled here and to become the world. the earth computer.

that this CPU is precisely where symbolic orders, language, becomes and submerges or takes over material change at a quantum level. where words, literally, fight the subjection to angelic noise, or shit-becoming.

### **Maxwell's world:**

An obsession, the only obsession there can be, with the word made flesh, our flesh which is now technology and which was words (words of invocatory code). the word has been made this flesh (and this is also the link to alchemy where material action in the world is presented as a set of symbolic transformations (leading certain thinkers to conceive of alchemy solely as a practice of symbolic or unconscious transformation). so my interest is in precisely where this transition from word or symbol (in the case of say computer programming) to material takes place. what i call the site of execution? (explain? that cannot be located)

This transition, this making of the world flesh is an energetic transformation, that it needs energy to do this, that this transformation which makes the world for us requires a declining energy gradient (increasing entropy through the consumption of energy), that is perhaps a mundane or profane sacrifice. the world literally burns for meaning. but does this imply transcendent meaning or simply a rebound/return to materials/only the earth?

Behind the hieroglyphic streets there would either be a transcendent meaning, or only the earth.

*[Crying]*

this transition or transformation in no place is not magic, and alchemy was never magical but natural, describing itself as "natural philosophy" - a philosophy in and of nature as a symbolic realm. and these energetic transformations can come be viewed as "energy state/level transitions" within the quantum

entropy and maxwell's demon unite this obsession with the site of execution and the concerns of this conference and the conspiracy that is technology underwrites this UNITY, this ONE cycling. TO KEEP IT ALL RE-CYCLING is the key as we'll see.... in time.

maxwell's demon marks the transition from material to information - that it was already about knowing which particle has so much energy... to sift and sort that all-times entropy gradient within some kind of apparatus (and what is that apparatus?)

In an ordinary belfry, each bell has one rope which comes down through a hole in the floor to the bellringer's room. But suppose that each rope, instead of acting on one bell, contributes to the motion of many pieces of machinery, and that the motion of each piece is determined not by the motion of one rope alone, but by that of several, and suppose, further that all this machinery is silent and utterly unknown to the men at the ropes, who can only see as far as the holes in the floor above them.  
*[Maxwell 1879]*

Belfry of abstraction. another demonic container in which something is happening which is either known or unknowable. we can call this describing constructivist in that this is how the world is to the scientist but also how the world will be made and thought by technology.

under this sign and belfry boxing: world is written as a processor, as information or as CPU (pretending to be ignorant of energy, with entropy re-written as informational under the sign of Maxwell's Demon - that we can begin to call this Maxwell's world (his equations, the end of the energetic aether)), world as processor is the conspiracy of technology. reverse occultation in turning night into day. the sun unburied as a digital.

this demon demonstrates by default that information is energy, and must necessarily follow an entropic inclination. memory is always subject to the work of re-ordering and refreshing, operating against the hardness or rather leaky softness of nature by the arts, operating against the angelic unsorted noise of matter. [We have no voyce, but a full noyce that filleth every place: which when you ones taste of, Distance shall make no separation. Dee]

[core memory, RAM eg. RAM chips that store information are, in fact, ever so slightly heavier than RAM chips without information because of the relationship between energy and information, and the relationship between mass and energy ( $E=mc^2$ ). Particularly, information and entropy are very closely related concepts: lots of information is a low entropy state, less information is a high entropy state. So storing information, organising the bits on a computer chip into a less random pattern, requires energy to be pumped into a system to reverse the natural entropy experienced and organise the degrees of freedom available.]

at the same time endophysical or container interpretation of maxwell's demon without going too far into that (Rossler re. proofs that Maxwell's demon does not work)

To a being who is not confined to the world in question, however, all of the proofs break down. Indeed, when you sit at the keyboard of a computer in which a [...] universe is simulated, it is very easy to perform either of the above-mentioned magic tricks.

*[Rossler. Endophysics]*

## **Electronics**

Electronics can be described as the absolute and instrumental control and manipulation of electromagnetic energies (embracing the sun and earth) through principles of negative feedback and a necessary, flawed opposition to gradients of entropy on the inside.

electronics is the imposition of order on electrons, and thus on flows of energy. computation can equally well use flows of air, water, the movements of other beings, a demonic skipping to compute. computation converts energy to information, realising the promise of Maxwell's demon.

that the imposed order is there - forbidden zones of energy transition, boundings, the electron locked in. but that was what was discovered after Maxwell. quantum control. dreamy acoustics of Fermi, Pauli, Bohr, Planck all of this stemming from radioactivity...

order in all cases defining technology - the ordering of land under the sign of infrastructure, the ordering of states and subjects, the putting into order of synthetic and so-called natural molecules, the imposition of order on silicon, on mined and refined minerals ...

a putting into order means a putting into symbolic order, so that it means something and will continue to mean something... and that it is held as that which is certain and maintains identity, and is thus contained, it does not leak, neither energy nor current spraying out into another now meaningless container

**electronics signals and signs that technology is (and this is obvious) the ordering and containing of the earth as energetic process in itself and for itself as a containing**

that this is obvious and can be spoken as such shows the holding of the world - as functional in itself, doing and meaning something... If patterns of ones and zeroes were "like" patterns of human lives and deaths [Vineland]

from telegraphy (relay amplification), and the holy grid (de forests triode), the transistor, to the integrated circuit by way of the operational amplifier, to the logic gate, to the now invisible CPU and network of light the same principles of control and order:

flow x is under the control of flow y. x cannot or at least should not leak into y (opening the demonic doors)

the triode or audion - the first time was explicitly specified a control electrode

Electrons flowing from the cathode to the anode have to pass through a charged screen or grid. A slight amount of charge on the grid can have a big effect on the current flowing between the cathode and the anode. Thus the triode is a simple amplification device, since a small signal charging the grid controls a large flow of current.

next step is the transistor (1947): similar principle on a super-microscopic-level, the flow of electrons is controlled by changes in voltage potential in what is



called the base, which enacts quantum/material energy-level-changes within a doped substrate.

electrons are corralled in the transistor across energy bands within a crystalline structure.

the result is amplification but also oscillation by way of feedback

introducing indirect control into the material world, furthering abstraction one small step, but the next stage is introduction of feedback not only as POSITIVE oscillation as transmission but as further control or negation of the material world of heat, noise, entropy and energy. control of the flow energy as information negates being energy.

within the transistor amplification is runaway and dependent on environmental factors such as temperature. negative feedback (the amplified signal is fed back to the control signal in reverse or out of phase to temper this - self-adjustment, thermostatic control, tending towards self-consciousness)

as an aside: the oroboric op-amp or operational amplifier presents a more perfect solution to the excesses of matter and materials, that unconscious solarian monster which cannot conform and form to the ordered, that cannot be. in short, as materials present differing and unknown excesses of amplification outside our control, some kind of taming must take place, yet a serpent yoked from the inside under the sign of negative feedback (as in transistor also). how to explain? eats own tail, but negatively, swallowing time and energy but it is the no-energy, the zero impedance of a tail which doesn't pull or push and cannot work but is only for control.

parallels with bootstrapping - that the earth is encouraged to use "its own" energies towards that ordering (tailings, mines, computation, feedback). all of these natural cyclings are PUT UPON the earth. too much to say that they work NEGATIVELY, operating against itself.

next stage from the transistor and op-amp to the solid-state intelligencing that is the CPU, the central processing unit, the earth core by way of the logic gate and the truth table, Dee's angelic communication table:

He standeth upon his round table of Crystal, or rather of Mother of Pearl: There appear an infinite number of letters on the same, as thick as one can stand by one another. The table is somewhat inclined on one side  
*[Dee. TFR]*

but now a truth table of ones and zeroes, infinitely arrayed as a time series writing all Lullian possibilities as a new book of nature, somewhat similar in nature to the old one.

how logic gates work? rather than one flow (of electrons, of water, of breath) effecting another, that two inputs designated demonically as a one or a zero are switched about by a few transistors to form an output (a one or a zero, a presence or an absence of a stream) which is always truly reproduced against infection and plague. Boolean logic, true or false, the OR gate, the AND gate

from which we can make simple addition circuits, towards the Turing complete CPU and circuit, the first tree-like extensions into the being-CPU.

## **Technology as conspiracy**

to view technology as a conspiracy means to see it as already occulted, hidden, something covered which is being planned for secret ends. that the project of science is not that which it publicly conveys? as if it could be, which is always the unrealised irony.

conspiracy is thus un-conscious, a nature, invented as and under that name... underground and darkened. but how can technology be hidden when it is precisely that sun (heraclitus: how can one hide before that which never sets) which never hides and is so obvious?

This world nature is described as a conspiracy (mocked up as a science standing against the human) which cannot be stated precisely because in being formulated we can point outside this container, this monument of a "saying so". That which is true cannot be how it is stated in the conspiracy, as that which is true can never be pointed outside once stated and cannot be meta-stated thus here and now. Nature is a place of technological hardnesse and holey stickiness, a falling into rock and slime. A conspiracy is coded in the earth itself and executed on the flesh; a conspiracy was unveiled as electromagnetic and geophysical in the nineteenth century, smog-veiled crypto-volcanic faultlines literarily stoking and coding the invention of an all time (writing) machine which would, as writing proceeds to word processing, turn some words, not all, into actions, supposedly without material bias and attrition, without magic; the modern, constrained and rationalist Enigma of Turing which can still turn bodies into slime, or fire. Containers for all life and death.

This conspiracy was initiated when the blood ores (such as haematite) of the very first metallic veins were explored and exploited, and it is a conspiracy commemorated in letters formed by the radon-rich standing stones, circles, qouits and chambers scattered across the now desolate, mined and exhumed landscape, to which the Time Traveller awakes.

This world as certain, as particular and as island is a monster, and there can be no other within the scribe of the danger or impossibility of an absolute clarity creating a new enclosure. The beginning is the vessel; the dream is always a container.

to list or to catalogue the ways in which we can consider technology as being formed and forming itself and that these are all linked:

- technology as that which it is doing after the fact (it does what it set out to do: the operational or material characateristics do not matter, are accidental). to do for the human to the world, instrumental and functional. as within a rhetoric of progress
- as determining - Kittler/see Parrika. perhaps (reverse) conspiracy. writing us

as a machine (vampiric - Stoker)

- as self-cyclical. as determining and forging humanity which then determines this thing called technology

- as political/military. again this containing operating against the vampiric, the promiscuous and the leaky.

- as a conspiracy/a virus. as that which has another end in sight for example in terms of consumption, energy and expenditure or sacrifice (Bataille)

- as defining a relationship with nature (that alien THING) or with the earth. as the necessary imposition of the symbolic on the earth. of an ordering and containing

- after heidegger. technology as a revealing of ("what is revealed in ordering")  
The revealing that rules in modern technology is a challenging [Herausfordern], which puts to nature the unreasonable demand that it supply energy which can be extracted and stored as such. //enframing

- finally as a model or mandala - technology suggests and enacts the being-substrate of the earth. Ballardian. psychogeophysics. technology makes the earth into a circuit to expose or reveal itself, to make itself evident as a laboratory, a container and as an energetic cycling. so technology is exactly the opposite of the occult in showing itself and in projecting that all is to be known, seen and mastered. yet this is precisely evident and not evident. technology as world circuit is the rendering META - Goedel's demonic incompleteness is written into the system from the inside, underlining it in order always to (only) refer to itself. cpu is known/unknowable/solaris being always in its own image of Goedelling or Turinging incompleteness. an alchemical cycling halting problem

finally as a holding in un/certainty. as that ordering which solarically involves and eats its own entropic failure - the ultimate negative feedback, eating itself which is precisely NOT the outside, the oceanic which knows NOTHING (solaris)

## **CONCLUSION: CPU is the book of nature**

book of nature as cpu. heiroglyphic streets are etched in nature, on a mined substrate, finally admitting that angelic noise as a controlled homunculus or a golem

solaris is the homunculus of alchemy: p179/LEM: the ocean was capable of reproducing what we ourselves had never succeeded in creating artificially - a perfect human body modified in its sub-atomic structure for purposes we could not guess. The ocean lived, thought and acted.

homunculus. secrets p132+:

homunculus differing from jewish golem. homunculus as produced by material operations which mimic nature, golem is an artificial man created and brought

to life by words and symbols. figure of a man is made from clay. the word  
emeth or truth is inscribed on its forehead (erase the first letter =death/meth)

## NIGREDO



For no man lives that each hath sees  
Upon foure feete a Lyon colloured Greene:  
But our Lyon wanting maturity,  
Is called greene for unripenes trust me,  
And yet full quickly he can run,  
And soone can overtake the Sun:  
And suddainely can hym devoure,  
If they be both shut in one towre:  
And hym Eclipse that was so bryght,  
And make thys redde to turne to whyte:  
By vertue of hys crudytie,  
And unripe humors whych in hym be,  
And yet wything he hath such heate,  
That whan he hath the Sun up eate,  
He bringeth hym to more perfection,  
Than ever he had by Natures direccion.

*[Abraham Andrewes in Elias Ashmole's Theatrum Chemicum Britannicum]*

### **interpretation:**

Here we have the tower as laboratory vessel, alembic or CPU,

and ... the veiling language might be familiar:

ALL haile to the noble Companie  
Of true Students in holy Alchimie,  
Whose noble practice doth them teach  
To vaile ther secrets with mistie speach

Also chemical process described (colours changing), and the surpassing of nature.

alchemists as "true physicians of mineral bodies, purging them of superfluties and assisting them by augmenting their virtue and freeing them from defects."  
*[Biringuccio Pyrotechnica]*

I am he which have powre to alter the corruption of NATURE. with my seal, I seale her and /she is becomm perfect/. I prevayle /in Metalls/: in the /knowledge of them./

*[John Dee, AWS. p. 147]*

The fundamental idea was that Nature was perfectible and that it was in a perpetual process of self-improvement. All metals tend, or wish, to become gold, and they do so over centuries of change. However, man can intervene and quicken the process of natural growth.

Zosimos: 3rd century AD - views alchemy as means to regenerate nature. first description of a distillation apparatus and distillation as a cycling regeneration of matter through a rendering as breath or spirit. a series of dreams which focus on the figure of the homunculus and cycles of sacrifice - viewed as alchemical allegories for material operations or...

... he said to me, "This man of copper whom you have seen is the sacrificial priest and the sacrifice and he who vomited out his own flesh. To him was given authority over the water and over those men in mortification."

And when I had seen these visions, I woke again and said to myself, "What is the cause of this vision? Is this not the white and yellow water, boiling, sulphurous, divine?"

## **VITRIOL**

Basil Valentine - VITRIOL - *Visita Interiora Terrae Rectificando Invenies Occultum Lapidem* - Visit the interior of the earth and by purification/rectification you will find the hidden stone.

... the cycle of rain through sea, air and land was for Paracelsus a great cosmic distillation. The formation of minerals underground, the growth of plants, the generation of life-forms, as well as the bodily functions of digestion, nutrition, respiration and excretion were for him inherently chymical processes.

*[The Secrets of Alchemy. Lawrence M. Principe]*

This natural chemical reaction formed the first part of the copperas manufacturing process in the 16th-18th centuries. Copperas stones ( $\text{FeS}_2$ ) were collected and placed in troughs on the foreshore. There the stones, washed by the sea, would oxidise and be colonised by bacteria. After about four years, they produced 'liquor' - a dilute solution of hydrated ferrous sulphate ( $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ ) and sulphuric acid ( $\text{H}_2\text{SO}_4$ ), which flowed via a plank channel to a cistern.

The Deptford cistern of chalk-caulked oak boards was subdivided to reduce loss from leaks. One Whitstable cistern measured 15 feet by 6 feet, one measured 80 feet by 9 feet and one 60 feet by 9 feet. However, in the earliest Whitstable works, liquor was pumped into '18 greate butts', probably sunk into the ground as shown in a print in the German writer Agricola's *De Re Metallica* (1556). At Queenborough, the liquor was conveyed to old barrels, then to 'a great tub'.

the key to dissolution. oyl of VITRIOL is sulphuric acid dissolving all metals except gold (aqua regia - sulfuric and nitric), vitriol as iron or copper sulfate/sulfide salts or copperas. VITRIOL is the green lion. VITRIOL is acid mine drainage AMD. tailings. exposure of rocks/pyrites to weathering... and now it leaks out. the containing of technology implies this Turing machine leakage...

the green lion eating the sun, and the blood of the sun (or of the lion?) pours down into the earth

this RECYCLING again: "we at Greene Lyon Group are modern day alchemists. We seek to convert low value waste and industrial by-products into high value raw materials, not by alchemical transmutation, but by the separation and recovery of targeted metals using modern physics and chemistry"

the earth is dissolved under the sign of the greene lyon as NIGREDO ->

### **NIGREDO:**

THIS IS the black work which is technology: calcination, putrefaction/fermentation and dissolving/dissolution as techno-cycles enacted ON the planet.

death decay and dissolution as part of re-cycling...

decay is the midwife of very great things! It causes many things to rot, that a noble fruit may be born; for it is the reversal, the death and destruction of the original essence of all natural things. It brings about the birth and rebirth of forms a thousand times improved

*[Paracelsus]*

dissolution - increasing entropy, de-creation (multiplication of degrees of freedom, occupation of all possible energy levels (quantum), the forming of a solution, the crystalline structure disintegrates and is undone, un-bounded.

The generation of all natural things is of two sorts, as one that happens by means of nature alone without any art, the other happens by means of art - namely alchemy. In general, however, one could say that all things are born from the earth by means of putrefaction.

*[Paracelsus. De natura rerum. 1537]*

### **This is The Black Stage**

"One popular notion is that chemistry derives from the Coptic word Kheme, meaning "black", alluding to the black land, Egypt, in reference to the color of Nile silt. There is some support for this notion, since the first century AD writer Plutarch notes that Chemis was an old name for Egypt. Hence... chemistry would literally mean "the Egyptian art". ... others have linked this derivation to "the black stage" a crucial step toward effecting transmutation.

or according to Zosimos who stands at the beginning:

The ancient and divine writings say that the angels became enamoured of women; and, descending, taught them all the works of nature. From them, therefore, is the first tradition, chema, concerning these arts; for they called this book chema and hence the science of chemistry takes its name

- so what is this black work or stage?

calcination and dissolution, putrefaction (fermentation) or decomposition by solution or by fire. a burning to ash (of so called e-waste) and a dissolution (in acid) for a black planet. a blackening, a rusting (decay of technology), a melting or smelting to be followed by albedo - the white light of purification or information.

### **Alchemy and the book of nature**

The Earth laboureth as sick, yea sick unto death. The Waters poureth forth weepings, and have not water sufficient to quench their own sorrows. The Aire withereth, for her heat is infected. The Fire consumeth and is scalded with his own heat. The Bodies above are ready to say, We are weary of our courses. Nature would fain creep again into the bosom of her good and gracious Master. Darkness is now heavy and sinketh down together: She hath builded her self, yea (I say) she hath advanced her self into a mighty building, she saith, Have done, for I am ready to receive my burden.

*[Dee. TFR - this is the angel Murifri talking to Dee]*

The book of nature is corrupted. The information, text is indecipherable, so many flying particles and lives to be sifted and sorted against time...

book of nature is unstable, disordered and decaying, just like an oxidising or rusting technology.

deterioration of the communication of the book of nature. information entropy

Dee's conversations with angels as reception of a forgotten divine language which would enable an understanding and thus a recovering of the corrupted book of nature, a decaying earth with demonic words crumbling - for the book of nature is the word made flesh. Illusions combinatorials - the contemporary CPU and technology is this occulted book of nature.

He saw that all things grew contrary to their creation and nature; either keeping their dignities and secret virtues shut up in obscurity, or else riotously perishing, through the imbecility and forwardness of ignorance: So that it was said, Behold, I delight not in the World: The Elements are defiled, the sons of men wicked, their bodies become dunghills.

*[Dee TFR True and Faithful Relation]*

### **Returned to the earth**

Minute rings of a magnetic material, a specific material blend known as ferrite,



can be threaded with thin copper wires to form a simple binary computer memory. This computational memory, known as magnetic-core memory, or simply core memory, dates back to the mid 1950s and was used for perhaps twenty years as a common finite storage medium. A single bit can be stored indefinitely on a single core, ring or toroid, relying on the specific electromagnetic properties of the ferrite used. The operation of reading that singular bit will destroy the information, reverting a one to a zero.

The buried single core memory inspires the forest action, that which is named as "a return to the earth." The first impulse was to bury a single magnetic core memory in the forest earth, and subsequently to pass the entire contents of the author's hard drive as binary data into this core. To return it, obviously, to the earth. The idea was transformed to perhaps more elegantly to release this same binary information as a series of electrical impulses which could travel into the earth through differentials induced between two metal plates inserted into the ground. This process lasted for 175 days, until the informational content of that hard disk had been exhaustively returned to the earth

### **And to a future dissolution...**

In order to turn nature against itself, to bootstrap an un-bounded, dissolutive technology from the body and from the earth, a small area of the forest is set aside to live on. Horses and chickens are kept on this land, and their dung is piled, aerated and mixed with our own urine over the years. We boil, filter, and dry this old dung and waste to form white crystals which are set aside. We cut and collect black hair, calcinate this, boil it and equally crystallise.

Using charcoal from surrounding trees, and with glass blown from the local sand, an ad-hoc furnace and alembic is constructed to distill the crystals from these processes.

This forms aqua regis which is set aside. Using this we will return nature or technology to the earth.

### **Final quotation/John Dee's call to arms:**

The Earth is a monster with many faces: and the container of all variety. Go home, stand not idle. Provide by Arts for the hardnesse of Nature ...

*[John Dee, TFR. p. 357]*